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Tourism and economic development: The beach disease?

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ABSTRACT

This paper analyses empirically the danger of a Dutch Disease Effect in tourism dependent countries in the long run. Data on 134 countries of the world over the period 1970–2007 is used. In a first step the long-run relationship between tourism and economic growth is analysed in a cross-country setting. The results are then checked in a panel data framework on GDP per capita levels that allows to control for reverse causality, non-linearity and interactive effects. It is found that there is no danger of a Beach Disease Effect. On the contrary, tourism dependent countries do not face real exchange rate distortion and deindustrialisation but higher than average economic growth rates. Investment in physical capital, such as for instance transport infrastructure, is complementary to investment in tourism.

1. Introduction

The Dutch Disease phenomenon describes the coexistence within the traded goods sector of booming and lagging sub-sectors. Traditionally, the booming sector is referred to be of an extractive kind (e.g. oil or gas) and the manufacturing sector is expected to be under deindustrialisation pressure. For the detailed description of the core model on a booming sector and deindustrialisation in a small open economy, including an algebraic formulation of the problem, see Corden and Neary (1982). For an extended and more general version of Dutch Disease economics, see Corden (1984).

Copeland (1991) adjusted the Dutch Disease model in order to examine the economic effects of an increase in tourism in a small, open economy. Adjustments are necessary because there are important differences between tourism and commodity exports. In the presence of tourism, goods that are normally non-tradable become partially tradable and tourists typically consume a bundle of goods and services jointly with unpriced natural amenities, such as climate and scenery. Thus, unlike in the Dutch Disease model, there is a direct increase in foreign demand for non-tradables in a tourist boom, the difference between a trade tax and a domestic commodity tax is fuzzy and unpriced natural amenities may generate rents.

Copeland shows that in the absence of taxation and distortions such as unemployment the appreciation of the real exchange rate is the only mechanism by which tourism can enhance domestic welfare (if there were no non-tradables, tourism would have no such effect). This would happen through a direct effect, which is the increase of the price of services, holding domestic spending constant, and an indirect spending effect, which is due to the change in domestic spending on services induced by the real income change. However, this could be only a small fraction of the potential gains, because this is a rather inefficient way of receiving rent from natural amenities. With international factor mobility the benefits of a tourism boom are even smaller as the price of non-tradables is less responsive to demand shocks. Copeland's results further include that if fixed factors in the non-tradables sector, such as land, are foreign-owned, rents will leave the country. As a result, the country may end up worse off than before the tourist boom. However it is important to note that the presence of domestic commodity taxes can increase the benefits of tourism, since they allow for some rents from the unpriced natural amenities.

Concerning the effects of a tourist boom on the pattern of production in other sectors and on factor returns it is hard to make clear predictions. Nevertheless, Copeland can show in a simple version of the specific factors model incorporating international capital mobility (labour is mobile across all sectors but is not mobile internationally) that tourism may result in a contraction of the manufacturing sector (because of manufacturing capital leaving the country) and that even more than the entire aggregate social benefits of tourism (due to an increase in the price of services) are captured by the immobile factor specific to the non-tradables sector (i.e. a part of the land specific to tourism) if there is no taxation. If external economies are important to economic growth, then such a process of deindustrialisation may have significant welfare effects. This is if the potential external benefits generated by industrial expansion are bigger than those generated by an expansion of the

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tourism sector (the model of Nowak, Sahli, & Sgro, 2003 comes to a similar conclusion).

Copeland's model incorporates capital mobility. Therefore it could be argued that these results not only refer to the short run but also to the long run. This is even truer if industry specific learning-by-doing effects are assumed, as in van Wijnbergen's (1984) extension of the Dutch Disease model. It is a stylised fact that technological progress is faster in the manufacturing sector than in the nontraded sector of an economy. Thus, if most of economic growth is caused by learning-by-doing induced technological progress which moreover is largely confined to the traded goods sector, even a temporary decline in that sector may permanently lower income per head in comparison with what could otherwise have been attained.

Moreover, Chao, Hazari, Laffargue, Sgro, and Yu (2006) develop similar results in a dynamic economy model, where an expansion of tourism leads to a terms of trade improvement, which in turn leads to a diversion of resources from the manufacturing sector to the non-traded sector. The result is a Dutch Disease type of deindustrialisation. The presence of capital-generated externalities further aggravates deindustrialisation, making tourism more likely to be welfare reducing. This is supported by the authors' numerical simulation. Chao et al. (2006) show that tourism increases the overall welfare of residents in the short and medium run due to an increase in the price of non-tradables, but welfare is declining in the long term. The cause is a process of capital decumulation in the long run.

Thus this paper provides an empirical analysis of the danger of a Dutch Disease Effect in tourism dependent countries in the long run: The "Beach Disease Effect". Specifically we check whether tourism dependent countries show a less dynamic economic development using a sample of more than 130 countries over almost four decades. Such a comprehensive assessment of this relationship has been lacking so far: The existing empirical literature on tourism and economic development has mainly focused on case studies of single countries or islands. This includes several case studies on Mediterranean countries (see e.g. Balaguer & Cantavella-Jorda, 2002; Dritsakis, 2004; Gunduz & Hatemi-J, 2005; Katircioglu, 2009a, 2009b; Ongan & Demiroz, 2005). There are also a number of studies on Asian and Pacific countries (see e.g. Chen & Chiou-Wei, 2008; Khalil, Kakar, & Waliullah, 2007; Kim, Chen, & Jang, 2006; Lee, 2008; Narayan, 2004; Narayan & Prasad, 2003; Oh, 2005) as well as on Mexico (Carrera, Brida, & Risso, 2007) and Mauritius (Durbarry, 2004). Most of the country studies employ Granger causality tests and provide evidence that both tourism-led growth and growth-led tourism development occurs. Only one of the country studies deliberately analyses the possibility of a Dutch Disease phenomenon caused by tourism (Capó, Font, & Nadal, 2007). The authors find evidence that the Balearics and the Canary Islands, whose economies are heavily orientated towards tourism, both show signs of Dutch disease and that, as a result, their economic growth might be compromised in coming years. To make a point, the paper presents detailed statistics on price developments in the service sector, production diversification and employment in high technology sectors of tourism specialised as compared to other regions of Spain.

Another set of studies has been looking at specific country groups. The case of small countries has been especially well researched (see e.g. Brau, Lanza, & Pigliaru, 2007; Candela & Cellini, 1997; Lanza & Pigliaru, 1994, 2000a, 2000b; Modeste, 1995). It is observed that microstates specialising in tourism grow faster. A few other studies concentrated on geographical country groups. Proenca and Soukiazis (2008) find in a panel of Southern European countries from 1990 to 2004 tourism to be a factor of income convergence. For a panel of African countries for the period 1995–2004 Fayissa, Nsiah, and Tadasse (2008) find a positive relationship between tourism and both the GDP level and economic growth. A similar result was found by Eugenio-Martin, Morales, and Scarpa (2004) for a panel of Latin American countries from 1985 to 1998.

To our knowledge only two studies focused on a world-wide panel of countries. Lee and Chang (2008), using a panel of 55 countries over the period 1990–2002 are still rather interested in the results for various subgroups as well as causality issues, employing a model with tourism proxies and real effective exchange rate. The later variable is used as a proxy for competitiveness following Balaguer and Cantavella-Jorda (2002) and Dritsakis (2004). One of the results is that tourism development has a greater impact on GDP in non-OECD countries than in OECD countries. Sequeira and Nunes (2008) are the first to evaluate the world-wide impact of tourism, recurring to dynamic panel data techniques that deal with endogeneity and following the empirical economic growth literature. Specifically they also analyse a sub-sample of small countries. Their prime estimator is a System-GMM estimator as developed by Arellano and Bover (1995) and Blundell and Bond (1998). The panel consists of five 5-year periods between 1980 and 2002 for about 90 countries. The results indicate that tourism specialisation is an important determinant of economic growth and that the effect of tourism decreases when small countries are considered, which is contrary of what literature have suggested so far.

However, to our knowledge only one empirical study (Lanza, Temple, & Urga, 2003) has analysed possible long-run implications of tourism specialisation in the context of a highly productive manufacturing sector and a less productive tourism sector, including the issue of the price level in tourism countries. It is interesting to note that this article is not referring at all to Copeland (1991) and the Dutch Disease literature. Estimating a model on the share of expenditure on tourist goods and services provided overseas, using data on 13 OECD countries for the period of 1975–1992, the authors find positive and values of expenditure elasticity exceeding one, indicating that international tourism is a luxury good for consumers in industrialised countries. These findings suggest that for tourism dependent countries the costs of foregoing learning-by-doing in a more productive non-specialisation sector might be sufficiently outweighed by more learning-by-doing in the less productive sector and especially favourable terms of trade. This is mainly confirming a model of trade and endogenous growth as developed by Lucas (1988).

In this research we want to combine the two strands of existing literature that are purely interested first in the impact of tourism specialisation on economic growth in the long run across all the countries of the world (e.g. Sequeira & Nunes, 2008) and second in the possible channels by which tourism specialisation can improve or deteriorate economic development (e.g. Lanza et al., 2003), based on the theoretical model of Copeland (1991). The results of our research will allow drawing specific policy recommendations and may lay the empirical foundations for new theoretical models explaining the actual channels by which tourism can impact economic development of nations.

The present econometric analysis consists of two parts. We first use a methodology similar to the one applied in Gylfason (2001) and Sachs and Warner (2001) to achieve empirical evidence from econometric studies of the cross-country relationships between natural resource abundance and economic growth around the world. We modify this methodology for tourism sector dependence instead of natural resource abundance. We also study the transmission channels and calculate the indirect effects of tourism on economic growth for each transmission channel, according to the methodology described in Papyrakis and Gerlagh (2004, 2007). In the second part, we apply a panel data framework on GDP per capita levels that allows for checking the results and for paying specific attention to the time dimension. This second approach also allows for controlling for reverse causality, non-linearity and interactive effects.