

(SP) REVEALED COMPARATIVE ADVANTAGE AND SPECIALISATION IN ATHLETICS

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Introduction

The degree to which individual countries are successful in sports differs considerably. Whereas some nations dominate (given) sports, others hardly ever come into the picture. A lot of (empirical) work has been published demonstrating that the macro-economic, geographical, sociological and political context plays a crucial role (see list of references for a selection). These studies focus mainly on the success during Olympic Games, notably the Summer Olympics. While demonstrating that – indeed – (economic, sociological, ...) context matters for sporting success *in general*, they also show that these determinants have divergent impacts on *specific* sports. The issue is similar to that of specialisation in international trade. Just like some countries are (relatively) better in producing exotic fruits and others have an advantage in the production of cars, the context of some countries may create comparative advantages [‘producing’ athletes that are successful at the Winter Olympics is easier in Switzerland than in, say, Spain or Senegal].

A similar type of comparative advantage can be expected to exist within a heterogeneous sport as athletics. The context variables that are favourable to ‘produce’ long distance runners are likely to be different from the variables affecting success in pole vaulting. We analyse these types of comparative advantages among countries. This allows us to identify what factors contribute to the success in the different disciplines. We demonstrate how - from a sports policy perspective - this insight can help in developing an efficient policy aimed at maximising sports successes in an international context.

Methods

The analysis consists of two steps. First, comparative advantages have to be identified. Thereto, and following Tcha and Pershin (2003) who applied the method for Summer Olympics, we calculate the so-called *revealed comparative advantage*. This provides us with an indicator for each country which measures in what disciplines the country is most successful. This indicator is calculated starting from international 2005 IAAF- rankings by event. Secondly, using Tobit II estimation techniques, we estimate a model that explains the value of this indicator by discipline as a function of variables that capture the economic, geographic, sociological and political context.

Results

We measure revealed comparative advantages in athletic events. We find that the main determinants of specialisation are a country’s per capita GDP, and the fact that it is or used to have a socialist regime. Both affect the degree of specialisation, especially towards non-running events where the international success is more ‘makeable’ as it takes a well-developed talent detection, recruiting and athletics education system as well as important investments in infrastructure. Rich countries have the financial capacity to provide these (former) socialist countries with the willingness (or tradition) to excel. The effect of both determinants is less pronounced in the running disciplines where – as a rule – the relative role of talent versus education is more pronounced.

Discussion

Identifying revealed comparative advantages in different disciplines in athletics and its determinants provides an insight that is both interesting from a (positive) academic perspective and helpful for policy makers and federations. Indeed, the identification of determinants not only helps to understand actual sports successes; it may also be used to understand structural changes therein. From a policy perspective the insight is a crucial input into any planning that aims at maximising a country's or federation's success rate in international competitions. Also from a policy perspective, it is crucial to keep in mind that even if favourable conditions exist to 'produce' sport successes, it is still necessary to complement 'natural' conditions with active policy measures.

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