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Impact of Transport Infrastructure on International Competitiveness of Europe

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Abstract

One of the main objectives of the European transport strategy in its 2011 White Paper is to help establish a transport system that enhances competitiveness of European countries. By performing a methodological study, analysing several European transport infrastructure investment cases and conducting a review on various assessment tools, we clarify the relationship between transport infrastructure investment and its wider economic impacts, namely competitiveness and economic growth, we make synthesis of some proposed improvement of the methodology used to assess these impact as well as some recommendations on assessing European Union (EU) policy in transport infrastructure investment in respect of competitiveness and economic growth.

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1. Introduction

The objective of getting out of the crisis together with the urgent need to remain highly competitive especially against the new emerging economies has made Europe's competitiveness and economic performance fundamental issues in the recent years. European Commission's Transport White Paper 2011 has summarized the main objective of European transport strategy which is to help establish a system that underpins European economic progress, enhances competitiveness and offers high quality mobility services while using resources more efficiently.

Given the above challenges and strategy setting, it is obvious that stronger role and bigger contribution of the transport sector in the improvement of European economic growth and competitiveness are highly expected. In consequence it is also essential first to clarify the relationship between the transport sector and the economic growth and the competitiveness and second, to elaborate a working framework so that transport policy intervention can effectively improve European economic growth and competitiveness.

Our aim in this paper is twofold. First we aim at clarifying the relationship between transport infrastructure investment and its wider economic impacts, namely competitiveness and economic growth in particular and second, at synthesizing some proposed improvement of the methodology used to assess the impacts of investment in transport infrastructures especially on competitiveness and economic growth.

To achieve the above objectives, we have first conducted a methodological study aiming at defining the issue of competitiveness, clarifying the relationship between investment in transport infrastructure projects and the defined competitiveness and finally, at exploring the state of assessment methods used to evaluate transport infrastructure projects.

Second, we involve several case studies that we consider as representing all transport modes and covering different European Union (EU) regions. These cases have been taken from transport infrastructure investment projects which are in operation so that we can analyze if the effects on wider economic benefits, namely economic growth and competitiveness are relevant issues to these projects. We also underline the importance of regional aspects since the effects of growth and competitiveness are variably perceived between the different regions or countries.

We perform a review of a number of tools, ranging from transport network models and social computable general equilibrium models used in the practical assessment of transport policy in Europe. We analyze the ex-post model results in order to determine if competitiveness and regional growth are taken into account to a large extent by those tools and to formulate some improvements.

Finally we provide some recommendations to the European Commission on making political intervention in order to enhance competitiveness of Europe both externally, i.e. in relation to the rest of the world and internally, i.e. between its countries and regions.

2. Issues of Competitiveness: Definition and Determining Factors

The World Economic Forum has for many years been using the same competitiveness definition in its yearly reports on competitiveness at the country level, i.e. *the set of institutions, policies, and factors that determine the level of productivity of a country* (Porter et al., 2007, Schwab & Sala-i-Martin, 2012, p. 4)

Three main characteristics of this definition are its briefness, its non-inclusion of the consequences of being competitive and its closeness to an economists' interpretation, i.e. in competition, productivity is what decides who will gain the upper hand. This is the definition upon which we base our own, with one modification. Even if it looks exhaustive, in our view, the first two determinants, namely institutions and policies are subsumed into the third one, i.e. "factors" which we consider as a hold-all category.

In this study we define competitiveness as: *the extent to which firms in a particular region can compete with those elsewhere. Critical factors for competitiveness are those that determine the level of productivity in a region in relation to other regions.*

In this definition, we understand 'compete with firms elsewhere' to mean that they "produce goods and services that meet the test of international markets". Other key elements of the definition are firms, region, and productivity.

Firms and other individual units such as entrepreneurs, employees are key actors of competitiveness. Regions on the other hand are not key actors but only a construct. Therefore our definition explicitly reads "firms in a region".

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