

Summary:

The Role of Transport Infrastructure in Regional Economic Development

In the last decades increasing attention of the researchers have been paid to the spatial economic phenomena as well as to the spatial nature of economy. Such new developing fields of economics as regional and urban economics, economic geography etc have appeared leading to the development of new theories and models.

The influence of transport infrastructure on regional economic development and performance is one of many spatial economic phenomena attracting constant researchers' attention in the past years and is the theme of the present dissertation.

Although there exists a clear understanding among researchers that in theory transport infrastructure influence economy on both micro-, macro-, regional and network levels of performance, empirical evidence on this subject is quite ambiguous and researchers contradict each other in their conclusions about the magnitude of such economic effects.

The aim of the present dissertation is two-fold. Firstly, it tries to understand whether the economic effects of transport infrastructure provision exist and are significant enough to be accounted for while making policy decisions using Norway as an example of a country with well-developed transport infrastructure. The SCGE model for Norway (PINGO) developed in 2002 at TØI as a joint work between the candidate, Arild Vold and Viggo Jean-Hansen is used for the empirical analysis. The main conclusion from the performed empirical analysis is that although provision of transport infrastructure by itself does not lead to economic growth, its positive welfare effects calculated under the assumption of future economic growth are quite significant in monetary terms and increasing over time.

Secondly, the dissertation develops a generic SCGE model incorporating location decisions of households and firms, housing market, different market imperfections and explicit representation of real transport network. The developed model is able to capture the effects of infrastructure improvements at both micro-economic level, regional economic level and the level of real transport network and allows one to represent all major effects that infrastructure improvements may have on the economic performance of a region or a country. Functionality of the proposed model is illustrated using the hypothetical example.