

Economic Impact of the New Mediterranean Rail Corridor in Andalusia: A Dynamic CGE Approach

Topic: (1.4) CGE Modelling (1)

Author: Roberto LOPEZ

Co-Authors: Manuel A. CARDENETE

The transport sector is the life blood of the economy and serve as engine that fuels economic growth. From this perspective, the European Union is favoring the improvement of communications all around Europe. The goal is to create a European net of transports (TEN-T), and in this net the port of Algeciras in the strait of Gibraltar is an important node, as a primary rail hub for both the Mediterranean and Atlantic TEN-T rail corridors of the European Core Network. This paper assesses the impact of this new infrastructure in the economy of Andalusia through the use of a Computational General Equilibrium (CGE) model. The CGE will also add a dynamic component to evaluate the effect along several periods of time, based on the growth model of Ramsey with a representative consumer with infinite lifetime. The calibration of the model is done with the Social Accounting Matrix (SAM) of Andalusia of 2010 where the different modes of transport have been previously disaggregated. This work evaluates the long-term impact of the new rail infrastructure in the port of Algeciras, in terms of an increase of the traffic and also the shift from the road transport to the train. This work, however, is not taking into account other effects such as the impact of the construction of the infrastructures, neither the effect of the attractiveness of the area to the installation of new industries. Although impact analysis has been previously applied to assess the impact of transport infrastructures in Spain, these have made use of linear models, which underlay assumptions that are very restrictive. CGE models shifts these limitations, providing more realistic values; therefore, this work fill in this gap by introducing a Dynamic CGE model that overcome some of the limitations of linear models.