

TASSEL – Growth or Relocation? Transport Accessibility and Economic Activity Location

Summary

Economic life is unevenly distributed within the spatial economy. One of the main drivers of the location of economic activity is the accessibility to larger and more specialized input and output goods and services, a fact that has been studied for long by spatial economics and regional science. It is well known that transport policies change the relative transport costs and accessibility across space, which in turn impacts on the spatial distribution of activities through the location and relocation decisions of firms. Despite the fact that transport costs and travel times for goods and services have fallen substantially, the importance of proximity to markets has not disappeared and may even have contributed to accentuate the spatial concentration of economic activity, as predicted by New Economic Geography models and confirmed by empirical evidence on localization and urbanization economies, increasing spatial inequalities. Consequently, understanding the extent to which transport networks, which are one of the largest investments made by governments, produce "displacement effects" that may result in a zero-sum game is crucial for policy analysis. Indeed, one of the major limitations of existing empirical literature is its limited understanding of the extent to which the observed effects of transport accessibility on the location of economic activity reflect changes in the level of economic activity (i.e. growth) as opposed to a mere spatial reshuffling of existing activity (i.e. reorganization). TASSEL will advance existing knowledge on the impacts of transport accessibility on the spatial organization of economic activity by answering the following questions:

- To what extent does the investment (and disinvestment) in transport networks contribute to an increase in spatial inequalities in the distribution of economic activity?

In particular:

- What is the effect of changes in transport accessibility on the spatial patterns of new firm births, firm deaths, and job creation versus the relocation of preexisting activity from other locations? Are there differences across economic sectors?
- Does the relative importance of growth effects versus reorganization effects depend on the types of transport, i.e. road vs. railway networks?
- What was the effect of the disinvestment in the railway network versus the strong

expansion in the motorway network on the (re)location patterns of firms and jobs?

- How does the spatial scale (i.e. micro, local, meso, macro) used to measure the effect of transport on spatial distribution of economic activity affect the results on the relative size of growth effects versus reorganization effects, and what are the implications for transport and economic policies?

TASSEL will use Portugal as a case study for the following reasons. First, the evolution of Portugal's transport networks is unique in the EU's context because of the coexistence of the fast construction of a large-scale motorway network in parallel with a dramatic disinvestment in the railway network. Similarly to other southern European countries, road accessibility in Portugal was poor until the 1980s, but it improved massively since the country joined the EU in 1986 and gained access to structural development funds, a large proportion of which were allocated to the construction of motorways. In 1970, there were only 66 km of motorways in Portugal, increasing to 132 km in 1981, 409 km in 1991, 1660 km in 2001, 2737 km in 2011 and 3065 km in 2019. Motorways account for 21% of the road network: one in every five km. Second, Portugal provides a good case to study the effect of European development funds. The contribution of European regional development funds was crucial for the construction of a large-scale motorway network. Road investment during the EU's financial frameworks for Portugal between 1989-93, 1994-99, 2000-06 and 2007-13 accounted for 28%, 31%, 32% and 26% of total investment, respectively. Motorways alone represented 5%, 7%, 14% and 5% of total investment, respectively, exceeding the total of investment in all other transport infrastructures combined. In contrast, the rail network shrank due to the closure of several railway lines and the reduction of services in operating lines: the extension of operating lines shrank by 30% between 1970 and 2019. A crucial question is then whether, and how, these dramatic changes in Portugal's transport networks induced significant changes in the distribution of economic activity within the country through the creation of new firms and new jobs as opposed to the spatial reorganization of preexisting activity. TASSEL will provide valuable evidence on the role of road and railway networks on the spatial organization of economic activity since 1970, while distinguishing between growth and reorganization effects at multiple scales and across different economic sectors.

Project Reference

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Leading Institution

IST-ID – Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento (Portugal)

Partners

ISEG – Lisbon School of Economics and Management (Portugal), Nova School of Business and Economics (Portugal), UCL – University College London (United Kingdom), REM – Research in Economics and Mathematics (Portugal)

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