

# Infrastructure, Resource Allocation and Productivity Growth

Alberto Gude  
*University of Oviedo*

Luis Orea  
*University of Oviedo*

Luis Servén  
*World Bank*

Very preliminary and incomplete draft: April 20, 2018

**Keywords:** Infrastructure, resource allocation, productivity growth, stochastic frontier analysis, structural changes.

## Abstract

In this paper we propose a bottom-up approach to trace the channels through which infrastructure investments promote economy-wide productivity improvements using industry level data of a set of developed and developing countries. A distinctive feature of our empirical strategy is that it allows examining the role that the infrastructure provision has played in stimulating overall productivity through a better allocation of resources in the economy. While resource misallocation could be explained before via multi-sector multi-region general equilibrium models, we instead propose a much more simply approach that relies on estimated standard production frontier models. Finally, our model can be viewed as a continuous-time counterfactual of some of the existing discrete-time productivity decompositions. We try to go beyond this literature as our model aims to isolate the productivity effects of target variables, such as those measuring infrastructure provision.