This paper offers new evidence on the contribution of public capital to the private production of the Spanish regions, exploring different channels of influence and distinguishing among productive sectors and different kinds of infrastructure endowments. To do this, we base the frontier production function on a stochastic model that allows us to estimate simultaneously the contribution of infrastructures as productive inputs and determinants of efficiency levels. In contrast to other works, we employ physical units to measure the capital in infrastructure. The results confirm the notable contribution of infrastructure to private production and its positive influence on the efficiency of the Spanish regions. Above all, we highlight the importance of the composition of this stock and show its impact on the industrial and services sector.

Keywords
Infrastructure endowments, technical efficiency, stochastic frontier.