



ABSTRACT

Title: The role of irrigation on the regional divergences of Spanish agricultural production: Analysis during the second globalization

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Abstract: From the second half of the twentieth century, the Spanish agricultural sector experienced a sustained growth in production, which involved the convergence to Western European levels after years of delay in terms of agricultural production and productivity. This growth was not homogenous among regions, instead, important divergences are observed, mostly associated to the main crops cultivated in each area. More concretely, production moved to the warm and sunny provinces in the south and east of the country that tended to produce high valued crops oriented to foreign markets as fruits, vegetables and olive oil. Scientific literature has pointed to several factors influencing this process. Some of them are technological innovations, the internationalization of the Spanish agriculture, the internal development of Spain and its subsequent dietary changes, and the development of irrigation.

In this framework, the main objective of this paper is to analyse the influence of irrigation in the Spanish agricultural production, deepening into the generation of regional divergences during the second half of the twentieth century. Irrigation was

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essential, since it allowed growing Mediterranean water intensive crops in the most arid areas of the country. Thus, we will try to establish the quantitative long term relationship between the regional irrigated area and the regional agricultural production. We will use panel data econometrics to evaluate the specific impact of irrigation, also controlling for other geographical, technological, institutional, economic and social transformations occurred during the period of analysis. The level of disaggregation, in terms of production and regions, will allow to evaluate the robustness of our findings, as well as to define specific regional and crop patterns. This study will also allow to shed light on the environmental impacts of the intense and regionally-divergent development of water infrastructures in Spain.

Keywords: agriculture, irrigation, water, Spain, regional science

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