

The Effect of R&D Expenditures on Economic Growth: An Application at the Level of Spain NUTS-2 Regions

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ABSTRACT

R&D expenditure is considered as one of the most important innovation indicators. While innovation, at the micro level, enables firms to produce and export high value-added products, to have competitive advantages and to maintain their activities in the economy; at the macro level, it contributes to the growth processes of economies.

In this study, the relationship between R&D expenditures and economic growth was analyzed using panel unit root, cointegration and FMOLS and DOLS methods for the period of 2000-2014 at Spain NUTS-2 level. Findings indicate a positive and significant relationship between R&D expenditures and economic growth. Both Pedroni and Kao cointegration test results indicate a long-run relationship between series. According to FMOLS and DOLS results, a 1% increase in R&D expenditures raises the GDP about 0.37% and 0.40%, respectively. Moreover, the GDP of Galicia region has been affected the most by R&D expenditures.

Keywords: R&D Expenditures, Economic Growth, Panel Data Analysis.

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