

# **Impact of Macroeconomic and Social Variables on Renewable Energy Consumption for the G7 Countries: A Panel Data Approach**

**Fatih Sonmez<sup>1</sup> and José R. Pires Manso<sup>2</sup>**

## **Abstract**

This study investigates the impact of some variables on RE consumption (% of total energy consumption), namely human development index, research expenditures (% of GDP) and energy imports (% of GDP) in the G7 countries. The data period is 1990-2014. We use the General Least Squares (GLS) to estimate a panel data model. The analysis give empirical evidence that Research Expenditure (% of GDP), Human Development Index and Energy imports (% of total energy consumption) have individual positive effects on Renewable Energy Consumption (% of total consumption), ceteris paribus. This study is innovative since nobody till now studied such a sample for the 7 countries of the G7 group with such a methodology, fills a gap in the existing literature and increases the body of knowledge.

**Key words:** Human Development Index, Research Expenditures (% of GDP), Energy Import (% of GDP), Factors of Renewable Energy.

**JEL Codes :** B22, O13, Q42

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<sup>1</sup>**Corresponding Author** Economics, Universidade de Evora, Evora, Portugal. [ftshnmz\\_90@hotmail.com](mailto:ftshnmz_90@hotmail.com)

<sup>2</sup>Department of Economics and Management, Universidade da Beira Interior, Covilha, Portugal. [pmanso@ubi.pt](mailto:pmanso@ubi.pt)