MPP-E1180: Collaborative Social Data Analysis Assignment 2

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Introduction

Today it is widely known the fact that climate change imposes real challenges to societies' environmental and economic wellbeing. This state of affairs urges us to think on ways to cope with the effects of climate change as well as finding potential alternatives to the roots of this human-caused phenomenon. Consequently, this pressure has put into question the traditional energy sources in use which have contributed to high levels of pollution and greenhouse gas emissions worldwide. Besides the fact that renewable energy adoption constitutes a means to deal with this challenge, Ilas (2014) argues that renewable energy sources have also been increasingly adopted worldwide for being a consistent way of improving energy efficiency by reducing energy consumption levels. Recent studies of Eyraud et al. (2011) and Del Río, Tarancón, and Peñasco (2014) identified that renewable energy sources will be the key drivers of the energy sector in coming years. Our main goal with this research project is to identify what are the determinants of investments in renewable sources of energy, namely wind and solar power energy, across European countries and to what extend factors, such as economic growth, changes in fuel prices, and interest rates have a significant impact on green energy investments.

Research Project

This research proposal aims to identify the key determinants of green investments in renewable energy sources by collecting and analyzing data on economic, demographic, and political factors which may be responsible for delimiting a scenario for investment opportunities. We start this project having the following assumptions in mind.

Economic growth and income generate a higher demand for energy and clean air, and the same can be said about increasing population levels. (Note on this: Even in cases of decreasing or stable population sizes, renewable energy sources may represent possibilities for diversifying countries' energy matrix and guaranteeing sustainability of energy consumption).

Innovation is essential for advancements in the energy sector as to guarantee environmental-friendly efficiency. It means that human capital and new technologies may play an important role behind green investments. Therefore, by veryfing the percentage of GDP which has been allocated to Research and Development as well as enrollments in tertiary education in EU countries we can attest the role of innovation in investments in renewable energy sources.

The macroeconomic theory on interest rates, which states that low interest rates are beneficial for long-run investments as it ensures availiability of larger amounts of capital.

Fossil fuel costs Public policies

Del Río, Tarancón, and Peñasco (2014)

Eyraud et al. (2011)

Wickham and Francois (2016) R Core Team (2015)

Data Sources and Methodology

References

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