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ENERGY EFFICIENCY AND GROWTH PERFORMANCE IN THE EUROPEAN UNION, THE USA AND JAPAN

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Overview

The present abstract relates energy efficiency to growth performance in order to detect the influence of energy efficiency in the economic growth. Other objectives have to see with the different roles the energy efficiency has on growth performance in the United States of America (USA), the European Union (EU) and Japan. In order to achieve these aims the paper uses a Database published by Eurostat (the statistical institute of the European Union).

Methods

In methodological terms the article or paper uses either a special autoregressive vector model, the VAR/ECM model, where the Impulse Response functions (IRF) and the Cholesky Variance Decomposition play important roles – or the Granger Causality Theory and other causal theories based on the VAR/ECM model.

Results

As the paper is already in progress we can't say exactly the results we are going to obtain but it is not difficult to foresee that energy efficiency should be greater in Japan and in the European Union than in the United States because Japan or the EU are more dependent in energetic terms than the USA and because this last country has cheaper energy prices than the European Union and Japan that depend strongly from energy imports.

Conclusions

With the same reserves referred in the last paragraph we can say that energy (and energy efficiency) plays an important role in explaining the growth performance of USA, Japan and EU, especially for those countries that have a great dependence from the energy imports as is the case of Japan and the EU. That energy, being more and more expensive as world scarcity of energy increases, has to be saved, and one of the best ways of doing it is in investing in new technologies less energy-using in order to produce more with less quantity of energy, so improving the energy efficiency. That the USA should increase their energy prices and help to develop more efficient equipments in order to save energy and to favour energy efficiency. In summary we can say that the big solution for increasing economic growth in countries with strong energy dependence like the EU and Japan, is to improve energy efficiency what is equivalent to say in doing more technological research, in developing new energy-saving equipments.