

## THE RELATIONSHIP BETWEEN ENERGY INVESTMENTS, SHOCKS IN ENERGY PRICES AND THE MACROECONOMY IN THE EU COUNTRIES (EIP-MACRO)

### Goal of the project:

Energy prices record high fluctuations increasing market uncertainty. The central role of oil prices in influencing consumption, investments and macroeconomic policies requires special attention. In this context, the main goals of the project are: (i) to analyse the investment behaviour and TFP of energy sector companies using firm-level data; (ii) to investigate the non-linear interactions between oil prices and the macroeconomy; (iii) to assess the environmental impact of energy policies, EU regulations and renewable energy consumption.

### Short description of the project:

The project aims to provide a deeper understanding of the energy and environmental economics issues, analyzing the interactions between energy prices and the macroeconomy.

### Project implemented by

Politehnica University Timișoara

### Implementation period:

02.05.2018 – 30.04.2020

### Main activities:

- a) Development of research on three directions:
  - determinants of investments and TFP of energy companies
  - macroeconomic impact of oil price shocks
  - environmental impact of energy policies.
- b) Econometric analyses and generation of results
- c) Dissemination of results in conferences and high-ranked journals.

### Results:

#### a) 3 Research stages for young researchers

- University of Poitiers, University of Augsburg, International School for Social and Business Studies

#### b) 11 Conference participations

#### c) 1 organized research workshop

#### d) 10 ISI journal papers:

1. Grecu, E., Aceleanu, M.I. and Albulescu, C.T. (2018). The economic, social and environmental impact of shale gas exploitation in Romania: A cost-benefit analysis, *Renewable and Sustainable Energy Reviews*, 93, 691-700. (Q1)
2. Albulescu, C.T. and Pépin, D. (2018). Monetary integration, money demand stability and the role of monetary overhang in forecasting inflation in CEE countries, *Journal of Economic Integration*, 33(4), 841-879 (EMCI).

3. Albulescu, C.T., Kang, S.H., Tiwari, A.K. and Yoon, S-M. (2019). FDI, income, and environmental pollution in Latin America: Replication and extension using panel quantiles regression analysis, *Energy Economics*, 84, Article 104504. (Q1).

4. Kang, S.H., Tiwari, A.K., Albulescu, C.T. and Yoon, S-M. (2019). Exploring the time-frequency connectedness and network among crude oil and agriculture commodities V1, *Energy Economics*, 84, Article 104543. (Q1).

5. Albulescu, C.T., Riza, D., Raheem, I.D. and Tiwari, A.K. (2019). Does economic policy uncertainty connect financial markets? Evidence from oil and commodity currencies, *Energy Economics*, 83, 375-388. (Q1).

6. Tiwari, A.K., Adewuyi, A.O., Albulescu, C.T. and Wohar, M.E. (2020). Empirical evidence of extreme dependence and contagion risk between main cryptocurrencies, *The North American Journal of Economics and Finance*, 51, 101083. (Q3).

7. Grecu, E., Albulescu, C.T., Pârțachi, I.P., Stancu, S. and Trașcă, D.L. (2020). Output, uncertainty and fuel prices in the EU countries, *Economic Computation and Economic Cybernetics Studies and Research*, 1, 15-30. (Q3).

8. Albulescu, C.T., Artene, A.E., Luminosu, C.T. and Tamasila, M. (2019). CO2 emissions, renewable energy production and environmental regulation in the EU countries, *Environmental Science and Pollution Research*, <https://doi.org/10.1007/s11356-019-06155-1> (Q2).

9. Albulescu, C.T., Bouri, E., Roubaud, D. and Tiwari A.K. (2020). Quantile causality between banking, stock and real estate securities returns in the US, *The Quarterly Review of Economics and Finance*, <https://doi.org/10.1016/j.qref.2020.03.005> (Q3)

10. Albulescu, C.T., Tiwari, A.K., Ji, Q. (2020). Copula-based local dependence between energy, agriculture and metal commodity markets, *Energy*, <https://doi.org/10.1016/j.energy.2020.117762> (Q1).

## Applicability and transferability of the results:

The results of the project have both a micro- and a macro-level applicability. In the first case, the strategic management of companies activating in the energy field will benefit from a deeper understanding of elements influencing the level of investment in the industry. In the second case, national and international regulators and policy makers receive information about the impact of shocks in energy prices on inflation and exchange rate, but also about the effectiveness of environmental regulation and the role of renewable sources in reducing CO2 emissions at EU level.

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## Research Center

Research Center in Engineering and Management

## Research team

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