

Environmental Policy Instruments and Greenhouse Gas Emissions: VAR Analysis

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Abstract : The paper examines the interaction between the environmental taxation, size of government spending on environmental protection and greenhouse gas emissions and gross inland energy consumption. The aim is to analyze the effects of environmental taxation and government spending on environmental protection as an environmental policy instruments on greenhouse gas emissions and gross inland energy consumption in the EU15. The empirical study is performed using a VAR approach with the application of aggregated data of EU15 over the period 1995 to 2012. The results provide the evidence that the reactions of greenhouse gas emission and gross inland energy consumption to the shocks of environmental policy instruments are strong, mainly in the short term and decay to zero after about 8 years. Further, the reactions of the environmental policy instruments to the shocks of greenhouse gas emission and gross inland energy consumption are also strong in the short term, however with the deferred effects. In addition, the results show that government spending on environmental protection together with gross inland energy consumption has stronger effect on greenhouse gas emissions than environmental taxes in EU15 over the examined period.

Keywords : VAR analysis, greenhouse gas emissions, environmental taxation, government spending

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