# A STRUCTURAL VAR ANALYSIS OF RENEWABLE ENERGY CONSUMPTION, REAL GDP AND CO2 EMISSIONS: EVIDENCE FROM TURKEY

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**Abstract**
This study aims to analyze how an increasing share of Renewable Energy Sources on Electricity generation affects Gross Domestic Product and Carbon Dioxide emissions using a 3 variable Structural Vector Autoregressive methodology. The period considered was 1960 to 2012 for Turkey. The existence of unit roots was tested to infer the stationarity of the variables. Through the impulse response functions, the SVAR estimation showed that the increasing Renewable Energy Sources on Electricity generation share had economic costs in terms of Gross Domestic Product per capita. There was also an evident decrease of Carbon Dioxide emissions per capita. The variance decomposition showed that a significant part of the forecast error variance of Gross Domestic Product per capita and a relatively smaller part of the forecast error variance of Carbon Dioxide emissions per capita were explained by the share of Energy Sources on Electricity generation.
**Keywords:** SVAR, Renewable Energy Sources, Economic Growth, CO2 Emissions, Turkey.

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