

Energy Use Beyond GDP: A Dynamic Panel Analysis with Different Development Indicators

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Parole chiave: Economic development, dynamic panel, energy consumption

- **Obiettivi** This paper analyses the the role of energy consumption in countries with heterogeneous development paths. Energy is a fundamental input in human activities and there is a broad literature attesting the link between economic growth and energy use, even though the relationship is far from linear.
- **Metodologia:** We examine how the trajectory of energy consumption and development varies depending on the definition of development adopted, comparing classic GDP, adjusted net national income, life expectancy and the human development index in different regions of the world. We apply a pooled mean-group estimator in a dynamic auto-regressive distributed lag model for 127 countries over the period 1970-2016.
- **Risultati:** Results for different metrics can differ substantially and even move in opposite directions over time, as for the case of life expectancy in Asian countries, or for adjusted net national income in Sub Saharan countries.
- **Implicazioni.:** It is crucial to distinguish different measures of development to capture effects that can even move in opposite directions.