Overview
The purpose of this study is to examine the major determinants of energy demand. Using a
panel of 23 OECD countries and 16 non-OECD countries over 26-year period, the
possibilities and limitations of alternative energy control policies can be achieved.

Methods
The Pooled Mean Group (PMG) estimators is used to assess the short- and long-run
relationship between energy demand and its determinants. This method developed by
Pesaran et al. (1999) takes account homogenous long-run relationships in heterogeneous
panels.

Results
The empirical results of this study confirm the majority of the findings in energy demand
analysis where income and price have shown to be important determinants in energy
consumption in both developing and developed countries. Moreover, both economic
structure and also technical progress appear to exert significant impact on energy
consumption.

Conclusions
The implication of the findings is (i) the structural differences across the stage of
development could lead to significant reductions in the income elasticity of energy demand,
(ii) technological change is energy using in developed countries and energy saving in
developing countries (iii) since the demand for energy in developing countries is income-
elastic, energy policies of changing income directly or indirectly via, for example, higher
taxes on energy consumption may be effective, (iv) technological improvement regarding
energy will only partly contribute such aims due to the rebound effect.

References
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