Energy demand, substitution and environmental taxation: An econometric analysis of eight subsectors of the Danish economy

This research contains an econometric analysis of energy demand in trade and industry which allows for substitution between electricity and other energy carriers when relative prices change. The presence of substitution suggests that taxation can be a means of changing the energy input mix in a more environmental-friendly direction. For eight subsectors of the Danish economy, time series (1966–2011) are modeled by means of partial Cointegrated VARs. Long-run demand relations are identified for all subsectors and robust price elasticities are supported in five cases. The results are used in a small impulse–response experiment which suggests a potential for taxation to induce substitution of electricity for fossil-based energy.

General information
Publication status: Published
Organisations: Department of Management Engineering, Systems Analysis
Contributors: Møller, N. F.
Pages: 97-109
Publication date: 2017
Peer-reviewed: Yes

Publication information
Journal: Energy Economics
Volume: 61
ISSN (Print): 0140-9883
Ratings:
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 4.26 SJR 1.916 SNIP 1.869
Web of Science (2017): Impact factor 3.91
Web of Science (2017): Indexed yes
Original language: English
Keywords: Cointegrated VAR, Energy substitution, Environmental taxes, Impulse–response analysis, Industrial energy demand, PSO tariff
Electronic versions:
post_print_EE.pdf. Embargo ended: 17/10/2018
DOIs:
10.1016/j.eneco.2016.10.004
Source: FindIt
Source ID: 2347669228
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review