New insights into the stochastic ray production frontier - DTU Orbit (03/11/2019)

New insights into the stochastic ray production frontier

The stochastic ray production frontier was developed as an alternative to the traditional output distance function to model production processes with multiple inputs and multiple outputs. Its main advantage over the traditional approach is that it can be used when some output quantities of some observations are zero. In this paper, we briefly discuss—and partly refute—a few existing criticisms of the stochastic ray production frontier. Furthermore, we discuss some shortcomings of the stochastic ray production frontier that have not yet been addressed in the literature and that we consider more important than the existing criticisms: taking logarithms of the polar coordinate angles, non-invariance to units of measurement, and ordering of the outputs. We also give some practical advice on how to address the newly raised issues.

General information
Publication status: Published
Organisations: Department of Management Engineering, Systems Analysis, University of Copenhagen, Economics Institute
Contributors: Henningsen, A., Bělín, M., Henningsen, G.
Pages: 18-21
Publication date: 2017
Peer-reviewed: Yes

Publication information
Journal: Economics Letters
Volume: 156
ISSN (Print): 0165-1765
Ratings:
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 0.77 SJR 0.738 SNIP 0.741
Web of Science (2017): Impact factor 0.581
Web of Science (2017): Indexed yes
Original language: English
Electronic versions:
New_Insights_into_the_ray.pdf. Embargo ended: 08/04/2019
DOIs:
10.1016/j.econlet.2017.04.006
Source: FindIt
Source ID: 2357614924
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review