



Data for tourism efficiency and productivity analysis

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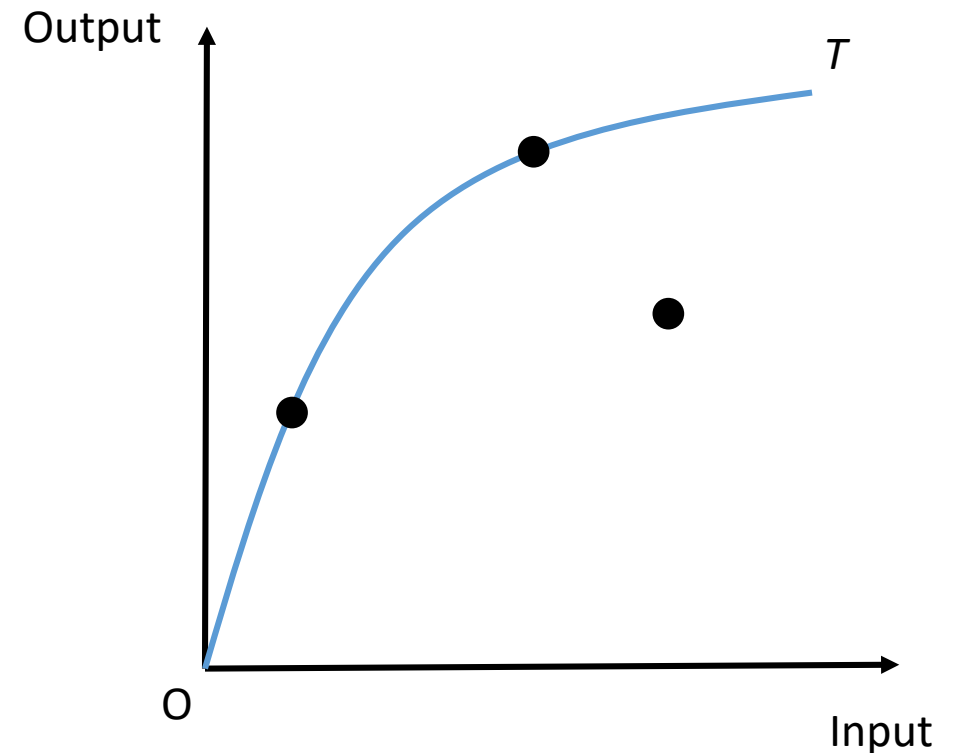
What kind of data for efficiency analysis?

Data for efficiency measurement: 1st stage

- Definition of the production technology (T): inputs are used to produce outputs
- Data depend of the Decision Making Unit (DMU) analyzed
- At least two inputs representing labor and capital factors and the outputs can take several forms
- Data selection requires some rules

Data for the explanation of efficiency: 2nd stage

- Group/category effect
- Contextual/environmental factors



Example 1: hospitality sector

(from Dong et al., 2020 and Peypoch et al., 2020)

- DMU: 30 Chinese provinces
- Annual data
- Star-rated hotels

Data for the 1 st stage	Sources
Inputs: total fixed assets and number of employees and number of rooms Outputs: rooms sold and total revenue (or by kind of revenues)	China Tourism Statistical Yearbooks
Data for the 2 nd stage	
Marketization, Internet and Law indexes; Openness	National Economic Research Institute (Beijing) and economic indicators

Example 2: ski resorts

(from Corne et al., 2020)

- DMU: 56 French ski resorts
- Winter season data

Data for the 1 st stage	Sources
Inputs: number of slopes, days of opening, number of ski-lifts, permanent and seasonal employees Outputs: Turnover of ski-lift operators and number of skier days	Montagne Leaders magazine
Data for the 2 nd stage	
Size, ownership, location	Montagne Leaders magazine and authors calculations

Challenges in the selection/availability of data

- Some inputs need further elaboration
- Include the data as an input (1st stage) or a contextual factor (2nd stage)
 - Botti et al. (2009) vs Barros et al. (2011)

References:

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