

Sensitivity Analysis in Data Envelopment Analysis

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Data envelopment analysis (DEA) is set of models used to assess relative efficiency of certain decision making unit (DMU) compared to the others decision making units. Efficiency is considered as Pareto efficiency with DMUs using multiple inputs to produce multiple outputs. One of the problems is sensitivity analysis, for example how much data of efficient DMU can be changed so that it still remains efficient. Sensitivity analysis is performed combining different approaches and using parametric programming. Goal is to assess changes of inputs and outputs of efficient DMU so that it remains efficient if and only if changes are in given intervals. Focus is especially on dual program and dual multipliers.