DEA-Solver-Pro News Letter

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We now release Version 3.0 of DEA-Solver-Pro. The new comer is the Malmquist Productivity Index model. Totally, DEA-Solver Pro has 76 DEA models in 22 clusters, compared with 66 models of the old version. The added or modified part can be summarized as follows. Details can be found in the manual Introduction 3.0.Doc.

1. The "Malmquist productivity index" deals with observations in the form of panel data and analyzes the productivity change over time as the product of the catch-up and frontier-shift terms. See Appendix F of the manual for more detail.
2. We have changed the input data format of the "Window model". The format is common to "Malmquist index model" as well. We have added two more models to the "Window model". **(Followings are information on the models introduced in the Version 2.0.)**
3. The "Non-discretionary model" is a variant of the "Non-controllable model" and differs from the latter in setting non-controllable constraints. See Page 7 of the manual for detail.
4. The "Super-efficiency model" aims at discriminating between efficient DMUs, i.e., DMUs with efficiency scores unity. It will usually return scores with greater than 1 for efficient DMUs, and the larger the score the more efficient the DMU is judged to be. See Appendix A of the manual for more detail of this model.
5. The "Adjusted projection model" deals with the projection onto the efficient frontiers. In many DEA models, an inefficient DMU is projected onto the efficient frontiers spanned by the efficient

(benchmark) DMUs. However, this operation needs care when we compare the performance of DMUs operating under different conditions. A straightforward projection may cause problems of rationality and hence the induced projections will result in impractical proposals for improvement. The Adjusted projection model solves this problem by assigning a target (adjusted) level of efficiency for each DMU. See Page 12 and Appendix B of the manual for more detail of this model.

6. Moreover, modified uses of Cost, Revenue and Profit models are presented in Appendices C, D and E of the manual.