Name:

Model-based Decision Support

Exam 4 (homework) Enrolment number: April 30, 2015

You can do this homework in groups. One delivery per group is sufficient, but do not forget to add the names of all group members.

You need the GAMS codes trsport.gms and trsport_in.gms, which you can find at TISS. Create a separate directory and put trsport.gms and trsport_in.gms there.

Open GAMS IDE and close (if any are open) all GAMS windows there; create a new project (File – Project), and load the two trsport GAMS via "open in project".

1. Execute trsport.gms in GAMS. Open (GAMS-File-Open) trsport.gdx. In trsport.gdx search for the parameter "demand" and "supply". Investigate these numbers and answer the question, if there is some supply that is not demanded. Finally close trsport.gdx and go via MS Explorer to its directory and delete trsport.gdx.
2. In the GAMS code trsport.gms delete the line „execute_unload 'trsport.gdx';" and add in the GAMS IDE command line (right to the start button) "-gdx trsport". You see, GDX files can be generated by different methods.
3. The commands „execute 'gdxxrw.exe ...." (do not forget to uncomment!) in trsport.gms ensure that the values x and their marginal values x.m, respectively, are added to the MS Excel file "result". Open and inspect this MS Excel document and **close** it finally.
4. Check if you are using .xls or .xlsx and ensure that in trsport_in.gms document the name of the result.xls(x) is used correctly in the call „$CALL GDXXRW.EXE results.xlsx par=level rng=A1:D3".
5. The call „$CALL GDXXRW.EXE results.xlsx par=level rng=A1:D3" loads the information stored in the cells A1:D3 out of the first working sheet of the Excel working book "reults" to a GDX File and denotes this data field by "level". Guess the name of the GDX File! (do not forget to execute trsport.in). Note: „$GDXIN results.gdx" opens the input channel to results.gdx; „$LOAD level" loads the data field „level"; „$GDXIN" closes the input channel.
6. Finally unload the optimal transport plan to a MS Excel working book.
7. Document/describe your work (two pages, one sheet of paper at most) and delivery it to me on April 30.