

This is a documentation file for a GEMPACK version of a program that derives a Global Social Accounting Matrix from the GTAP Data Base

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General Information.

The program is a compliment to:

Scott McDonald and Karen Thierfelder, "Deriving a Global Social Accounting Matrix from GTAP version 5 Data", Deriving a Global Social Accounting Matrix from GTAP Versions 5 and 6 Data, GTAP Technical Paper No. 22, 2004

The program was developed by Vitaly Kharitonov (Center for Global Trade Analysis, Purdue University) and Terrie Walmsley (Center for Global Trade Analysis, Purdue University).

User Instruction and Data Requirements

- 1) The program files are made available in a WinZip archive which can be downloaded from the website with the technical paper #22.
- 2) No GTAP data are provided. The user must have a licensed version of the GTAP data complete with the GTAPAgg program.
- 3) All the sets required to use the program GTAP database are provided from two files:
 - Sets.har – standard set file produced by the GTAPAgg program
 - Common.har – contains sets that are included in a Global Social Accounting Matrix no matter which aggregation is used.
 - **Note that in this version only these two files are required. You do not need to make your own special sets when changing aggregation.**
- 4) All files from the archive should be extracted to one directory. File Basedata.har and sets.har created by the GTAPAgg program should be copied into the same directory.
- 5) To derive a Global Social Accounting Matrix a user should select TG executable file **sam.exe** and run file **sam.sti** in **Gempack** or for those unfamiliar with Gempack a batch file is included (simply double click on the sam.bat file). Notice that depending on the aggregation required it takes 5-20 minutes to create output files. The two output files are:
 - a. sam.har is the full SAM as described in the tech paper.
 - b. asam.har is an aggregated version – here tariffs (tmm), export subsidies (tee), and imports and exports of margin services are shown for world, not individually for each country in the data base. The purpose of this was to keep the dimensions smaller.
- 6) A Global Social Accounting Matrix derived from the beta release of version 6 of GTAP Data is in file sam.har. This file is about 300 Mb, extracting this file from the

archive. Hence a user has to make sure there is enough free space available before running the program. The large size also causes it to open slowly in ViewHar.

- 7) To run the program with your own aggregation or a modified data base (e.g. altertax output) the user will need to place the data (named basedata.har) and sets (sets.har) from GTAPAgg into the directory containing the SAM exe file.
- 8) The structure of the file **sam.har** may appear to be slightly different from the one produced by the GAMS program developed by *Scott McDonald and Karen Thierfelder*. The differences are related to the fact that GAMS does not carry zeros.

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