



Release Notes for gtap.tab 6.2a

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Release 6.2a is a minor upgrade to the GTAP model source code package, adding a revised version of the ‘geelas’ program for computing general equilibrium price elasticities, and some ancillary files. It originates in a problem report from Kevin Hanslow and Mark Horridge; the ‘geelas’ revisions are by Terrie Walmsley.

The revised version of ‘geelas’ accomodates multiple international margins sectors, a feature of the standard GTAP data base since release 5. The new ancillary files include:

to.cmf: ‘SAGEM’ command file to generate matrices of elasticities with respect to the power “to” of the output subsidy

to.map: ‘SLTOHT’ mapping file to convert the “to” elasticity matrices from solution to header array form

to.har.sti: ‘SLTOHT’ stored input file to convert the “to” elasticity matrices from solution to header array form

geelas.cmf: ‘geelas’ command file to calculate general equilibrium price elasticities

Users will likely wish to adapt these files. But, to use them out of the box, first create a GTAP model data base, with files ‘sets.har’, ‘params.har’, and ‘base_data.har’, in the same directory as the source code package. Then, in a command line interface (e.g., a “DOS box”), in the source code package directory:

1. Create standard environment and equations files:

```
gtap -cmf init.cmf -log init.log
```

2. Generate matrices of elasticities with respect to the power “to” of the output subsidy:

```
sagem -cmf to.cmf -log to.log
```

3. Convert the matrices of “to” elasticities from solution to header array form:

```
sltght -sti to.har.sti -log to.har.log
```

4. Compute general equilibrium price elasticities:

```
geelas -cmf geelas.cmf -log geelas.log
```

The output of this procedure is a file ‘geelas.har’ containing both the general equilibrium price elasticities, and a breakdown of the elasticities by source of demand.

For further background on the general equilibrium price elasticities, see Hertel *et al.* [1].

For the benefit of GTAP users without access to GEMPACK, the release includes executable images not only of the GTAP model solution program ‘gtap’ (as have earlier releases from 6.1 on), but also of ‘decomp’ and ‘geelas’.

References

- [1] Thomas W. HERTEL, D. Kent LANCLOS, Kenneth R. PEARSON, and Padma V. SWAMINATHAN, “Aggregation and computation of equilibrium elasticities”, chapter 5 in Thomas W. HERTEL (ed.), *Global Trade Analysis: Modeling and Applications*, Cambridge University Press, 1997.