Package 'gtaptools'

April 15, 2023

Type Package

Title A set of tools to improve the productivity of CGE modelers.

Version 0.1.0

Description The gtaptools is a package under development that aims to offer a set of functions designed for supporting simulation exercises with CGE (Computable General Equilibrium) models in R language. The primary goal of this package is to facilitate and improve file management, increase the analytical potential of the database, and provide graphical visualizations of simulation results.

Encoding UTF-8

LazyData true

Depends R (>= 3.1)

Imports dplyr

Remotes github::USDA-ERS/MTED-HARr

RoxygenNote 7.2.3

License GPL (>= 3)

R topics documented:

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agg_har   *Aggregates headers of data in .har structure.*

Description

It aggregates variables from a .har file on disk or an object with the structure exported by the read_har function. It is possible to adopt customized weights and functions to calculate aggregations. The specification of GTAP models (...) through the *model* parameter is supported so that the respective weight variables are automatically detected according to the model being analyzed.

Usage

```
agg_har(
  input_data,
  model = NULL,
  correspondences,
  var_custom_agg,
  fun = sum,
  output_har_file = NULL
)
```

Arguments

input_data	It can indicate a path to a .har file or an existing object in the R environment that has the output structure of the read_har function.
model	Indicates the CGE model being worked on (Supports only GTAP, ...).
correspondences	
	A list indicating the original sets and new aggregated sets that will be exported. It can indicate a path to a .csv file or an existing object in the R environment that has the correspondences between the *input_data* sets and the new aggregated sets. The first line will be considered as header and identifier, and must necessarily contain the same name as the set that must be aggregated from *input_data*.
fun	Function that will be applied to aggregate (default = sum).
output_har_file	
	Output .har file name.

---

har_shape	*Aggregates headers of data in .har structure.*

Description

It aggregates variables from a .har file on disk or an object with the structure exported by the read_har function. It is possible to adopt customized weights and functions to calculate aggregations. The specification of GTAP models (...) through the *model* parameter is supported so that the respective weight variables are automatically detected according to the model being analyzed.

Usage

```
har_shape(
  input_data,
  new_calculated_vars = NULL,
  del_var = NULL,
  output_har_file = NULL
)
```

Arguments

input_data	It can indicate a path to a .har file or an existing object in the R environment that has the output structure of the read_har function.
new_calculated_vars	
	XXXX

```
   del_var          XXXX
   output_har_file
                    Output .har file name.
```

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squeeze_sim   *Squeeze the simulation files into a .zip file.*

Description

Scans the .cmf file and selects just essential files for the simulation and compresses them in a .zip file. It also creates a .bat file that makes it easy to run the simulation later. The files that are included are those specified in the .cmf file and that have the extension .tab, .cmf, .sti, .bat, .har, .prm, .shk, .cls, and in the case output = T, .sl4, .upd, .slc. (This function does not support dynamic simulations operationalized in the RunDynam software.)

Usage

```
squeeze_sim(cmf_file, zip_file, add_files = NULL, output = F, bat = T)
```

Arguments

cmf_file	Path to .cmf file which manages the simulation.
zip_file	Name of the .zip file that will be created.
add_files	Vector with the names or extensions of the files that will also be included in the .zip file in addition to the files mentioned in the description.
output	Includes simulation output files (default = F).
bat	Create a batch file to compile (if necessary) and run the simulation (default = T). For this functionality it is necessary to have Gempack installed.

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