Introduction to RunGTAP

Hands-on computing and examining some data

RunGTAP familiarisation

- Open by double-clicking on **RunGTAP** icon
- Click on the tabs:
  - **RunGTAP**
  - **Version**
  - **Closure**, **Shocks**, **Solve** & **Results**
    - Look at these later when setting up & solving a simulation
- On the Toolbar, click on '**version**'
    - Click on '**change**'
      - We can change to a new version e.g. using a different aggregation of the data

Finding out about the data

In toolbar, click on '**version**' then '**change**'

Select **ACOR3X3**

Note the regions & sectors

Looking at some base data:

click on **View|Base Data|Core Data**

Double Click on '**VDPA**' *value of expenditure on domestic tradable commodities by private households in 1995 US$million*

Double click on '**VDFM**'

There are now 3 dimensions!

VDFM(i,j,r)

Make sure you are familiar with reading the indices correctly!!

- What is the value of the EU's food sector's purchases of domestically-produced food?
- What is the value of the SSA's MNFCS sector's purchases of domestically-produced food?
- Now look at the variable VIFM
  - Definition?
  - What is the value of imported food purchases by the food sector in the EU?
- What is the total purchases of food (at market prices) by the EU's food sector?

- In GTAP, 5 factor endowments are modelled
  - Land (farm sectors only), skilled & unskilled labor, capital and natural resources.
- Look at sector purchases of these:
  - VFM
  - What values of these resources are purchased (market prices) by the food sector in the EU?

- So we now know, for the food sector in the EU, the value of its purchases of food (domestic and imported), land, labour and capital.
- We can get the same variables, but at agent's prices:
  - Look at VDFA, VIFA, and EVFA
- Now write down total purchases of all inputs by this sector (including purchases of manufactured and services intermediates)
  - Can calculate cost shares

GTAPView Data

- Click on **View|Base Data|GTAPView Output**
- This contains variables that have been computed from some of the variables in Base Data.
- Look at NFVA (row 15)
  - This is the cost structure of firms at agents prices
- Go through the drop-down boxes
- Obtain values for the EU
- These are the same as our previous values from the Base Data
- Now in the drop-down box that reads '**None**', click on '**Col**'
- Now you see the cost structure (% shares) for the EU's food sector
- For example, note shares of food, unskilled and skilled labour.
- Note how the cost shares differ in the EU services sector

- Still in GTAPView
  - Look at GDPEXP
  - Look at CURRENTACCT
- Viewing SET information
- Click on **View|Sets**
- Look at
  - TRAD_COMM
  - REG
  - ENDW_COMM

Viewing parameter values

- Foe example, elasticities
- Click on **View|Parameters**
- Look at ESUBVA

Where are these data?

- Click on **View|Other Text File**
- Basedata.har…the base data
- Default.prm……the parameters
- Sets.har…….the sets information.
- These files are automatically created whenever you run an aggregation of the GTAP database

The GTAP model file

- Click on **View|TAB files|Main Model**
- GTAP.TAB sets out the theory of the standard GTAP model.
- Note the version number and history.
- Scroll down until you see FILES
- GTAP gives the logical names of
  - GTAPSETS
  - GTAPDATA
  - GTAPPARM

  to the sets, data and parameter files
- We'll look at GTAP.TAB a lot more later.