



# A 1\*2\*3 Open Economy Model: Exercises

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#### **Outline**

- Introduction
- GAMS experiment coding
  - Changing the data and checking the model
  - Coding of shocks
  - Changing macroeconomic closure rules
  - Changing market clearing conditions
- Experiments
  - Organisation
  - Vietnam experiments
    - · Reductions in import duty rates
    - Setting macroeconomic closure rules & market clearing conditions
    - Interpreting the results
  - Ghana experiments
    - · Reductions in aid transfers
    - Setting macroeconomic closure rules & market clearing conditions
    - Interpreting the results

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#### Aims

- Learn to write better policy experiment files
  - Managing shocks
  - Set appropriate macroeconomic closure rules
  - Set appropriate market clearing conditions
- CGE results
  - Better interpret the results
  - Evaluate policy options

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#### 1-2-3 Exercises: Guidance

Follow the instructions in the document 1-2-3 Model Exercises.pdf

Start at the beginning and work through each exercise.

There is much less guidance for these exercises.

The example versions will be made available when ModO5 is released.

Techniques and skills used here will be used repeatedly in the course. We may not do things the way you are used to doing things.

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## User Model Library

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# emod

### Course Library & Working Directory

- All the files for these exercises are already in your course library
  - cgemod training\cgemod lib
- Create a New Project (File>New Project)
  - opmod2
- The library index file in Model Library Explorer
  - Practical CGE Library
  - Item 7 will be used

Create a new directory opmod2, i.e., cgemod training\opmod\opmod2

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## **Model Development**

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## Changing the Database

- The template (r\_123.gms) contains
  - All the code required
- In this part of the exercise you will
  - Change the data by selecting data for a new country
- Check that the model is correctly configured
  - The exercise document provides details for the seven tests
  - All the tests must be passed



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## **Policy Experiments**

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### **Experiments: Ghana**

- You will code and run aid experiments in a LOOP
- Based on the Government's objectives, you will decide on the
  - Macroeconomic closure conditions
  - Market clearing conditions
- You will use the results to interpret the implications of the shocks
- Review the structure of the Ghanian economy (look at the SAM)
- · You will submit
  - A short report
  - A copy of your experiment

The answers to the questions are VERY important.

This is an important step in learning how to interpret the results from CGE models.

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#### **Experiments: Vietnam**

- You will code and run import duty experiments in a LOOP
- Based on the Government's objectives, you will decide on the
  - Macroeconomic closure conditions
  - Market clearing conditions
- You will use the results to interpret the implications of the shocks
- Review the structure of the Vietnamese economy (look at the SAM)
- You will submit
  - A short report
  - A copy of your experiment

The answers to the questions are VERY important.

This is an important step in learning how to interpret the results from CGE models.

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Skills

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#### **Skills**

- Coding and Running Experiments
- Choosing the 'right' model settings
- Collecting results
- Interpreting results
  - Interpretation is critical

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The End

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