Applied General Equilibrium Analysis

In this course we develop and examine some theoretical and applied models of Walrasian general equilibrium, with emphasis on models and issues appropriate for small open developing economies.

In the first part of the course we establish theoretical foundations and analyze some simple models, in particular verifying some well-known trade-theoretic predictions about growth, economic structure, trade and the distribution of income. Subsequently, we examine empirical issues in open economies, first by solving simple analytical models, and then by examining simulation results from large computable general equilibrium (CGE) models. In these sections our empirical focus will rest on the welfare and distributional effects of endowment growth, trade and tax policy, technical progress, industrialization, resource depletion and related phenomena.

Assessment will consist of a modeling exercise.

1. Motivation
   • Examples of partial vs. general equilibrium models and their implications
   • Relevance of GE approach

2. Theoretical review
   • Producers: revenue and cost functions
   • Consumers: expenditure functions
   • Assumptions about markets and prices
   • Walras’s law and equilibrium.

3. Analytical general equilibrium models.
   • The Heckscher-Ohlin model
   • Specific factors, nontraded goods and ‘booming sectors’
   • Product differentiation and international factor flows

4. Analyses of growth, distribution, trade, welfare and policy
   • Endowment growth, technical change and price shocks
   • Policies, especially trade and tax policies and reforms
   • Income distribution and poverty measurement
   • Savings and investment
   • International factor flows
   • Spatial models and segmented markets
   • Large countries, increasing returns and externalities.

5. Computable general equilibrium analysis
   • Input-output data and Leontief models
   • Social accounting matrices
   • Introduction to APEX: an AGE model for the Philippines.
   • Policy experiments with APEX.

6. CGE analyses of growth, trade and policy
   • Empirical analyses of economic and policy problems, with special reference to developing economies.
   • Extensions and further applications of applied general equilibrium analysis.
Texts: No single book is completely suitable as a text. Instead, I will supply a packet of papers and extracts from books for students to access or duplicate. Material used in class will be drawn from the following list.

Concepts, theory and techniques


Dornbusch, R. (1980). Open Economy Macroeconomics (Basic Books), Ch. 2 (National income accounting) and Ch. 6 (the dependent economy model).


Sadoulet, E., and A. de Janvry (199). *Quantitative Development Policy Analysis* (Johns Hopkins U.P.), Chapters 10 (I-O tables and SAMs) and 12 (CGE models).


Small-scale analytical models


CGE Models and empirical issues


