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COURSE BROCHURE

# Computable General Equilibrium Economic Modelling Training Course

17 – 21 October 2027
Online

# Computable General Equilibrium Economic Modelling Training Course

**Ref:** 2731_104369 **Date:** 17 – 21 October 2027 **Location:** Online **Fees:** 1900 GBP

Computable General Equilibrium Economic Modelling is a 1-week training course for economists, policy analysts and fiscal planners who build an economy-wide simulation and bring back a tested tax and tariff shock model. Planning units must show how one fiscal measure ripples through prices, wages, trade and incomes before it is announced. Jupiter Prime Training delivers this course on equilibrium modelling.

## Why Computable General Equilibrium Economic Modelling Matters Now

Three forces shape the subject today. Fiscal reform asks treasuries to diversify revenue through consumption taxes and subsidy reform. Trade negotiations require evidence on how tariff schedules shift output between sectors. Legislators and citizens expect transparent estimates of who gains and who loses. An organisation that models these linkages well can sequence reforms, protect vulnerable households and defend its numbers in public; partial estimates risk surprises in inflation and employment. The course rests on the social accounting matrix, neoclassical production and demand theory, and economy-wide market clearing.

## Who Gains Most from Computable General Equilibrium Economic Modelling

- Analysts who prepare revenue estimates and incidence notes for tax and subsidy proposals
- Economists who assess the sectoral effects of tariff schedules and trade agreements
- Planners who compile national accounts, supply-use tables and input-output data
- Researchers who advise on energy pricing, labour market and investment policy
- Advisers who translate model results into briefings for senior decision makers

A fiscal policy unit gains most when its revenue, trade and statistics specialists attend together.

## Computable General Equilibrium Economic Modelling Capabilities

Participants move from a balanced data matrix to a solved counterfactual.

- Build a balanced social accounting matrix — the base year every simulation depends on
- Calibrate share and scale parameters to reproduce the benchmark — model credibility with reviewers
- Specify production, trade and household demand functions — the realism of substitution responses
- Weigh alternative macroeconomic closures — how savings, investment and the government balance adjust
- Test a tax or tariff change and decompose its effects — revenue, welfare and distribution briefings
- Communicate results with sensitivity ranges — ministers, negotiators and public audiences

## Key Computable General Equilibrium Economic Modelling Terms

- Social accounting matrix — a square table recording every flow between producers, factors, households, government and the rest of the world in one base year.
- Calibration — choosing parameter values so the model exactly reproduces the benchmark data.
- Closure rule — the choice of which macroeconomic variables are fixed and which adjust.
- Import substitution elasticity — the ease with which buyers substitute between domestic and imported varieties of the same product.
- Constant elasticity of substitution function — a production or utility form where the rate of input substitution stays fixed as relative prices change.
- Equivalent variation — the income change at original prices that would leave a household as well off as the policy does.

## Computable General Equilibrium Economic Modelling Day by Day

### Day 1: Economy-Wide Linkages and the Base Year

- Circular Flow of Income — Why Partial Estimates Miss Indirect Effects
- Supply-Use and Input-Output Tables — Sector Detail Available for Policy Questions
- Social Accounting Matrix Structure — Accounts Needed for Fiscal and Trade Shocks
- Matrix Balancing by Cross-Entropy and Scaling — Reconciling Inconsistent Source Data
- Benchmark Equilibrium Conditions — Checking Row and Column Totals Before Modelling

### Day 2: Behaviour of Producers and Households

- Nested Production Functions — How Firms Combine Labour, Capital and Intermediates
- Household Demand Systems — Consumption Responses to Price and Income Changes
- Import Demand and Export Transformation — Trade Substitution Behaviour
- Elasticity Sourcing and Literature Ranges — Defensible Behavioural Parameters
- Calibration of Share and Scale Parameters — Reproducing the Benchmark Exactly

### Day 3: Government, Markets and Closure

- Tax Instruments in the Model — Indirect, Income, Import and Factor Taxes
- Factor Market Specifications — Mobile, Sector-Specific and Unemployed Labour
- Savings-Investment Closure Choices — Investment-Driven Versus Savings-Driven Adjustment
- Government and External Balance Closures — Fixed Deficit or Flexible Spending
- Numeraire and Aggregate Balance Checks — Confirming the System Is Correctly Specified

### Day 4: Policy Shocks and Their Interpretation

- Counterfactual Simulation Design — Isolating the Effect of One Policy Lever
- Consumption Tax Increase Scenario — Revenue Yield Against Price Pass-Through
- Tariff Reduction Scenario — Sector Output, Imports and Employment Shifts
- Welfare Measurement by Equivalent Variation — Gains and Losses by Household Group
- Systematic Sensitivity Analysis — How Robust Results Are to Elasticity Choices

## Day 5: Practising the Tax and Tariff Shock Model

- Building a Small Open Economy Model — Applying the Day 1 to Day 3 Components
- Replication Test of the Benchmark — Confirming Calibration Before Simulating
- Running a Combined Tax and Tariff Package — Revenue-Neutral Reform Options
- Results Decomposition and Charting — Linking Outcomes to Model Mechanisms
- Policy Brief and Model Documentation — Completing the Tested Shock Model

## Applying Computable General Equilibrium Economic Modelling After the Course

- Update the social accounting matrix with the latest supply-use release and rerun the benchmark replication test
- Simulate one live tax or tariff proposal under two closures and present the welfare decomposition to the policy unit

## Computable General Equilibrium Economic Modelling Questions FAQ

### What is computable general equilibrium economic modelling and why does it matter now?

It is a method that simulates the whole economy at once, so a tax or tariff change shows its effects on prices, output, trade and incomes together. Reform debates now demand that evidence.

### Which roles gain most from computable general equilibrium economic modelling?

Economists, revenue analysts, trade negotiators and national accounts statisticians gain most. You benefit if you prepare evidence on fiscal or trade measures.

### How does a computable general equilibrium economic modelling course differ from a financial modelling course?

It models a whole economy rather than one company. You work with national flows, behavioural equations, market clearing and household welfare, not cash flow valuation.

### What do you bring back from computable general equilibrium economic modelling?

You bring back a calibrated small economy model, tested against its benchmark, with a documented tax and tariff simulation, a welfare decomposition and a short policy brief your unit can extend.

## Computable General Equilibrium Economic Modelling: The Way Forward

The tested tax and tariff shock model first informs whether a proposed revenue measure is worth its effect on household welfare. Revenue analysts and trade economists use it to compare options before they reach ministers. After its first use, revisit the closure choices and elasticity ranges.