Background

This course is intended to introduce users to the Dynamic GTAP Model (GDyn). The course consists of a mixture of online and onsite instruction. The online course lasts seven weeks and introduces the participant to GDyn. The online course is designed for self-paced learning; however, there are five homework assignments which are individually graded. During the one-week onsite course, there is a mix of daily lectures, lab assignments, and informal discussions designed to introduce participants to the basic features of the GDyn Model. These activities culminate in a major application undertaken by small groups and presented on the final day of the course. Groups are assigned an instructor who is intimately familiar with their project to act as a resource person. Our goal is for participants to leave with the capability of conducting and analyzing their own dynamic simulations using the GDyn Model.

Objectives

- To introduce participants to a dynamic model designed for conducting global trade analysis in an applied general equilibrium setting
- To provide participants with ample hands-on training with software that has been tailored for undertaking analysis using a dynamic recursive model
- To give participants the opportunity to interact with economists working on global trade and resource use issues using a dynamic modeling framework

Course Structure

**Part I: Online Modules** - Part I is a series of modules delivered online. By working through this material in advance of the onsite course, participants will become familiar with the theory behind GDyn, the standard GDyn notation and the course software. The modules covered during the online portion of the course follow:

1. **Introduction and Overview**: This module introduces the use of the Dynamic GTAP Model. During this week, you will be given the opportunity to familiarize yourself with the basic features of RunDynam.

   - **Topics Covered**:
     - Course Motivation
     - GDyn Overview
     - Wealth and Income Accounting
     - The GDyn Data Base
     - RunDynam: Part I - Model, Data and Overview of Software
2. **Dynamics:** This module guides you through the dynamics of the Dynamic GTAP Model.

   - **Topics Covered:**
     - Dynamics I
     - Dynamics II
     - RunDynam: Part II - Running a Basic Simulation and Viewing the Results?

3. **Baseline, Closures and Shocks:** This module investigates the three simulations, Baseline, Base Re-run and Policy, in the Dynamic GTAP Model.

   - **Topics Covered:**
     - The Baseline and Closures
     - Example of Calculation of Shocks to Remove Quota Rents
     - RunDynam: Part III - Altering the Baseline and Closures

4. **Parameters and Wealth Allocation:** This module investigates the behavioral parameters used in the Dynamic GTAP Model.

   - **Topics Covered:**
     - Behavioral Parameters
     - Composition of Capital and Allocation of Wealth: The Entropy Approach and Parameters
     - RunDynam: Part IV - Altering the parameters

5. **Welfare Decomposition:** The goal of this module is to teach about welfare and welfare decomposition in the Dynamic GTAP Model.

   - **Topics Covered:**
     - Welfare and Welfare Decomposition
     - Welfare Decomposition in RunDynam
     - RunDynam: Part V - Welfare Simulation

**Part II: Onsite Intensive Training** - Part II is an intensive, onsite course consisting of a mix of daily lectures, lab assignments, and informal discussions designed to introduce participants to the basic features of the model and data base. Participants will undertake formal lecture and lab assignments in the mornings and spend the afternoons working in groups to build their own RunDynam applications; including aggregating the data, developing a baseline and running policy experiments. The results of the applications will be presented on the final day. The daily content overview follows:

**DAY 1**

- Welcome and Course Overview
- Introduction to Dynamics
- Review of Wealth and Income Accounting
- Overview of Course Software
- Elements of a Baseline

**DAY 2**

- New Investment Theory
- Hands-on with Course Software
- Review of GDyn Data Base and Parameters
• Building a Baseline Scenario

DAY 3
• New Theory of Savings
• Building your Policy Scenario
• Reviewing the Dynamics I
• Small Groups Work on their Application: Baseline and Policy Simulations

DAY 4
• Reviewing the Dynamics II
• Discussion of Limitations
• Small Groups Work on their Application: Examining the Results

DAY 5
• Welfare Decomposition
• Small Groups Work on their Application

DAY 6
• Small Group Presentations
• Final Course Evaluation and Wrap-up Discussions

Contact
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