

Setting the Agenda

Capacity Building Workshop
“Enhancing Capacity on Trade Policies and Negotiations in Laos”
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Introduction

- Among the most notable recent developments in the trading environment of the Asia-Pacific region is the proliferation of preferential trading agreements (PTAs).
- In this workshop we will be developing and learning to apply various analytical tools that are useful in assessing the possible economic effect of PTAs.
- The techniques that we will discuss range from very simple indexes and indicators, to very complex simulation models.

Course Approach

- Throughout the course we will take a very hands-on approach.
- For each analytical tool we consider, we will cover the underlying rationale for using the tool, the details of implementation, and a series of worked examples based on real data.
- We will use the GAMS programming language as a tool throughout the course to help with data manipulations and model building.

Why Programming?

- Building analytical tools in a programming language provides a way to make generating analyses fast, accurate, and replicable.
- Programming an analytical tool requires understanding the problem in a way that pre-built tools, while convenient, do not. Depth of understanding a tool ultimately leads to superior policy analysis.
- It helps to build the skill necessary to modify and adapt analytical tools to different contexts.
- It helps to systematically develop the skills needed to use more complex forms of analysis.

Course Objectives

- By the end of the course, you should have a good feel for the various tools that are used to analyze the potential economic impact of PTAs, what they can and cannot tell us, and what their strengths and weaknesses are.
- You should have familiarity with a set of programs written in GAMS that can be used to conduct various types of analyses, and the data on which the analyses are based.
- You should have developed enough skill with basic GAMS programming to be able to apply these tools and adapt them to new problems.

Analytical Approaches

- **Indicators:** Basic manipulations of trade and/or protection statistics are used to indirectly assess the likely or actual effect of a PTA.
- **Gravity Models:** Assessment is made from historical trade flow data and a reduced form econometric model that characterizes trade as a function of distance and mass.
- **Partial Equilibrium Models:** A simulation of a single market is used to predict changes in trade, revenue and economic surplus in that market.
- **General Equilibrium Models:** A simulation of a complete economic system is used to predict economy-wide changes in the structure of production, resource allocation, economic welfare, and other variables.

Ex Ante vs Ex Post

- **Ex ante** analysis is conducted **before** a policy is put in place. The objective is to help with the policy development/selection process.
- **Ex post** analysis is conducted **after** a policy has been put in place. The objective is to help determine the efficacy of the policy, and perhaps suggest refinements or changes.
- The analytical methods outlined above can all be used either ex ante or ex post, although some are more usually used more in one mode than the other (e.g., gravity models are usually ex post, partial and general equilibrium simulation models are used mostly ex ante).
- In this course we will be concentrating primarily on using various methods for ex ante analysis.

- The course is based on the resource book “Analytical Approaches to Evaluating Preferential Trade Agreements with Applications (2017, ESCAP).
- All of the associated codes and examples are available online. They are written in the GAMS language, a demonstration version of which can be downloaded from the GAMS website.
- Indicators are covered extensively in Gilbert and Mikic (2009).
- The gravity model is covered in Shepherd (2013).

Agenda

- 1 Analytical background – key PTA concepts.
- 2 Obtaining and cleaning basic international trade data.
- 3 Using GAMS to manipulate data.
- 4 Using indexes and indicators to evaluate different aspects of PTAs.
- 5 Using constant market shares (CMS) analysis to evaluate changes in international trade shares.
- 6 Understanding and using partial equilibrium simulation methods.
- 7 Understanding and using general equilibrium (CGE) simulation methods.