

PAMS Course: The Shape of Things to Come

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Foreword

- "To respond adequately to concerns about the impacts of development programs it is necessary to determine (a) whether the desired social and economic changes have occurred in the intended target populations, (b) the extent to which these changes can be attributed to the development projects rather than to other independent factors (such as general changes in economic environment or the effects of other programs or policies), and (c) the direct and indirect impacts on other population groups ."

Valadez and Bamberger (1994)

Context

- Effective development policymaking reveals an intimate relationship between policymaking and impact analysis
 - The development objective defines the metric for impact assessment.
 - Proper impact analysis can inform the choice of policies on the basis of their likely or observed impact.

Context

- The development community has declared equity and poverty eradication basic objectives of development
 - Poverty reduction is indeed one of the MDGs
 - World Development Report (WDR) 2006 argues for the pursuit of equity as an intrinsic goal of development and for its instrumental value.

Context

- With respect to the instrumental value of equity, Aristotle notes that:
 - "It is when equals have or are assigned unequal shares, or people who are not equal, equal shares, that quarrels and complaints break out." (Quoted in Young, 1994).
- Distributional issues underpin the political dimension of policymaking due to the **heterogeneity of interests** involved.
 - Such heterogeneity stems mainly from differences in taste and in resource endowments, and can lead to differential impact.

Context

- Analysis of poverty and distributional implications of socioeconomic policies requires a firm understanding of key determining factors
 - Working Hypothesis: Observed poverty and inequality in a given society depend fundamentally on individual behavior and endowments (internal and external), and the political arrangements that govern social interaction.

Context

- An example of such a political arrangement is the market system characterized as follows:
 - "The first requirement posed by scarcity is not efficient choice but rather a method for allocating conflicting claims to desired scarce performances and objects so that people do not assault and kill each other in pursuit of them. The market system is such a method
 - ...It limits every person's claims to the sum of money obtainable by that person's offer of something of value on the market: a rule—look at it as a political rule—of quid pro quo"

Lindblom (2001)

Context

Another Example of a Political Arrangement Birhor Rule for Sharing the Kill after a Monkey Hunt

| Claimants | Share |
|--------------------------------------|---|
| Spirits of the Chase Tribal Chief | A bit of meat roasted by Chief Neck and half of back meat of each animal in addition to his hunter's share |
| Beater | Equal share of entrails, tails and feet based on number of beaters |
| Owner of Net | Hind leg |
| Flanker | Hind leg |
| Chief's Hunter | [not specified in source document] |

Source: Young (1994). Note: "Any left over is divided into as many portions as there are eligible persons, plus an extra share for the chief". The Birhors are a tribe in east-central India.

The Nature PAMS

■ Classification

- PAMS stands for Poverty Analysis
Macroeconomic Simulator

- It is a flexible simulation tool, member of a class of **policy models** designed for the analysis of poverty and inequality in a general equilibrium framework.
- Desirable properties of a **policy model** (Quade 1982)
 - **Relevance**: focus on issues of concern, and on politically significant socioeconomic groups and interaction among them.
 - **Reliability**: based on sound analytical linkages between available policy instruments (part of exogenous variables) and relevant outcomes (part of the endogenous variables) to ensure high degree of confidence in model predictions.

The Nature PAMS

■ Subclasses

- **Standard Representative Household (RH)**
 - Impact on functional distribution of income, mean welfare within a few representative socioeconomic groups, and between-group inequality, but not on poverty.
- **Extended Representative Household (ERH)**
 - Extends the RH approach by modeling the size distribution within group, hence allowing poverty analysis in addition to what RH allows.
 - e.g. Lognormal (Dervis, de Melo and Robinson 1982) or Beta (Decaluwé et al. 1999) or Parameterized Lorenz (Essama-Nssah 2005)
- **CGE-Micro-Simulation**
 - Use unit record data from household survey to build a household model of expenditure, or income generation to allow a rich analysis of poverty and inequality.

The Nature PAMS

■ Specification

- The specification of a policy model is dictated by the **issues** at stake, **knowledge** about the nature of the process involved, the availability and reliability of relevant **data**.
- PAMS belongs to the ERH subclass
- Use of a **modular approach** to account for interdependence between macro, structural and distributional effects of shocks and policies.
 - First component: A CGE Model.
 - Second component: A Poverty Module based on a parameterization of the Lorenz curve.
 - Interaction: Top-Down.

The Nature PAMS

- Policy Domain
 - Poverty and Distributional Implications of Economic Shocks (e.g. Dutch Disease, Terms of Trade), and Design of Mitigating Interventions.
 - Poverty Incidence of Budgetary Policies:
 - Income tax
 - Indirect taxes
 - Transfers
 - Poverty Implications of Economic Growth
- Limitations: Heterogeneity not fully accounted for when household level data are aggregated in a few representative groups.

Course Content

■ Purpose

- Provide the participants with a sound understanding of both the analytics and empirics underlying a variety of tools (including PAMS) relevant to the challenges analysts and policy makers face in policy design and evaluation.

■ Modules

- The Universe of EViews.
- Building an Applied General Equilibrium Model.
- Poverty and Distributional Outcomes of Shocks and Policies.

Course Content

■ The Universe of EViews

- Introduction to the basic syntax of EViews
 - Objects and their containers
 - Elements of programming
- An illustration of what EViews can do in the context of ex post impact analysis
 - Comparison of matching and parametric impact estimators
 - Hands-on: Use of a probability model to assess effectiveness of a new teaching method

Course Content

- The Universe of EViews
 - Hands-on: Propensity score matching estimation of the effectiveness of a new teaching method
 - Hands-on: Assessing the impact of a labor market intervention within the switching regression framework

- Guest Speaker: Elizabeth M. King, Research Manager, DECRG
 - Early Childhood Development and Integrated Programs: Evidence from the Philippines

Course Content

- Building an Applied General Equilibrium Model
 - The logic of general equilibrium modeling.
 - Working definition
 - Basic Walrasian framework
 - Diagrammatic representation
 - Numerical Implementation focusing on the simplest possible case.

Course Content

- Poverty and Distributional Outcomes of Shocks and Policies
 - A Stylized framework base on the ERH approach. Two components:
 - A two-sector model of an open economy
 - A poverty simulator based on the Lorenz model of the distribution of economic welfare.

Course Content

- Poverty and Distributional Outcomes of Shocks and Policies
 - Hands-on: Use above stylized framework to simulate the structural, poverty and distributional impact of :
 - A deterioration of the terms of trade
 - Two different configurations of sales taxes and tariffs.

Course Content

- Poverty and Distributional Outcomes of Shocks and Policies
 - Two Guest Speakers
 - Martin Ravallion, Senior Research Manager, DECRG: Winners and Losers from Trade Reform: Case Studies for China and Morocco.
 - Delfin S. Go, Lead Economist, AFRCE: Macro-Micro Modeling for South Africa.

Upshot

- Effective policymaking creates a need for reliable methods for assessing effectiveness (ex post or ex ante).
- Hence policymaking should go hand in hand with impact analysis.
- Poverty/Equity-focused development implies poverty/Equity-focused design and evaluation of public policy.

Upshot

- Building a plausible policy model requires a sound understanding of the issues at stake, the characteristics of the stakeholders and prevailing institutional arrangements.
- PAMS offers a simple and flexible framework for assessing the poverty distributional impact of economic events.
- The current version adequately accounts for interdependence among policy issues, but could do better in accounting for heterogeneity of stakeholders.

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