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Introduction

• Over-arching theme: reform briefs.

• Question at hand: PSIA for monetary and exchange-rate policy reforms.

• Challenging: while poverty is measured at the individual level, monetary reform is macro in scope.

• Even more challenging: macroeconomic reforms cannot be considered in isolation.
The Trifecta

• **Basis:** covered interest arbitrage.

• **Kernel:** macroeconomic policy reforms must recognize the opportunities they provide to individual investors and the constraints they place on other government activities.

• **Insight:** three common “monetary” reforms – removal of capital controls, fixing the exchange rate, adjusting the domestic interest rate – are not in general consistent.
A PSTA Schematic for Macroeconomic Reforms

Description of proposed macroeconomic reform

Identification of the consistent set of policy changes implied by this reform

Impact on wages, relative prices, incomes, employment and social status

Incidence of changes on poverty status of individual households
Approaches to Macroeconomic PSIA

• Before-After
• Cross-country
• Reduced-form
• Structural
• Full-package

Note: these have been applied to the incidence of poverty and of income inequality, but not to social indicators.
Before-After Analysis

• Information requirements:
  - Date of reform
  - Definitions of poverty, income inequality, social status.
  - Household survey from before the reform
  - Household survey from after the reform

• Ex-post analysis

• Problems: confounding the impact of reform with other events.
Cross-Country

- Information requirements:
  - Comparable measures of poverty, income inequality, and social status from a large number of countries.
  - Comparable indicators of macroeconomic policy from the same countries.
  - Comparable measures of alternative determinants of poverty, inequality or social status for the countries.
- Ex ante (out-of-sample) prediction possible.
- Problems: “virtual” countries.
Reduced Form

• Information requirements:
  - Panel data on households in a given country
  - Reduced-form theory of poverty as a function of geographic, demographic and macro policy variables
  - Empirical measure of households relative to poverty line.

• Ex ante prediction possible.

• Problem: omitted variables.
• Information requirements:
  - Panel data on households.
  - Structural model of the economy/society.
  - “Linkage equations” tying household decision-making to aggregate data.

• Ex ante predictions based upon model simulation

• Problem: structural models are Walrasian rather than macro.
Full Package

- Information requirements:
  - Panel data on households.
  - Explicit model of the macro and financial identities of the economy.
  - Structural model of economy/society.
  - “Linking equations” tying structural model to household choices.
- Ex ante predictions based upon model simulation.
- Problems: availability of data, and creation of realistic macro/financial model.

- Definition of macroeconomic reform
- Identification of the consistent set of policy changes implied by this reform
- Impact on wages, relative prices, incomes, employment and social status
- Incidence of changes on poverty status of individual households
An Example

Financial Programming Model

- Trivariate VAR (short run growth)
- 1-2-3 Model (Walrasian market clearing)
- Household Survey data (poverty)

- Long run growth model
- 1-2-3 Model (Walrasian market clearing)

Source: Devarajan et al. (2002)
What is included in this family of reforms?

Which stakeholders will be affected by the reform?

What are the transmission channels by which this reform affects household poverty?

What are the risks to stakeholders of this reform?

What are “good practice” examples of this analysis?
Exchange-rate Reform

\[ e = e_0 \]

\[ I(i,y) + (EX(e/P,y*) - IM(e/P,y)) = S(y,e/P) + (T-G) \]
\[ PL(i,y) = M \]
\[ (EX(e/P,y*) - IM(e/P,y)) - F(i-i*) = 0 \]
\[ y = y(w/P) \]

\[ X^s_i(L_i) = X^d_i(p_i,y) \text{ for all } i \]
\[ S_i L_i (w_f) = L \]
\[ Py = S_i p_i X^s_i \]

\[ p < y_h = y_h(w_f,p_i) ? \]
Exchange-rate Reform: Good-practice examples

- Reduced-form: no examples found.
- Full package: Ferreira et al. (2003) on Brazil.
Monetary reform: good-practice examples

- Cross-country: ?
- Reduced-form: ?
- Structural: ?
- Full package: Agenor et al. (2003) for a “virtual” country.
Outside the Box...

• Does the cost associated with exchange-rate devaluation fall disproportionately on women?

• Will a policy of high interest rates erode the cultural diversity among businesspeople?

• Can the stakeholders for capital controls be compensated for their losses in a financial liberalization?
Conclusions

- PSIA for monetary policy demands a link between macro balances and microeconomic household choices.
- The leading examples in this literature are sophisticated modeling exercises.
- The challenge for the future: reworking the framework to account for additional social impacts.
  - Different metrics.
  - Different transmission channels.