



Including Unpaid Work in Modeling

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OUTLINE

- **Formal Macroeconomic Modeling**
- **Macromodeling without Gender**
- **Gender-aware Macroeconomic Analysis**

Formal Macroeconomic Modeling

Formal modeling can be expected to fulfill three useful functions.

- First, it can help organize our body of knowledge with theoretical precision
- Second, it can ease the difficulty of communication with those economists who have little knowledge of the stylized facts on how gender matters in the way the macroeconomy functions.

Formal Macroeconomic Modeling

continued

- Finally, and perhaps most importantly, formal modeling is a crucial step in policy making. Simple, as well as more complicated, models can be quite powerful in demonstrating the potential effectiveness of gender aware policies to policy makers.

Macromodeling without Gender: 3 Markets and 3 Economic Agents

The Macroeconomy can be viewed as consisting of three types of markets

- the **Goods and Services Market** (consumption & investment goods & services)
- the **Inputs Market** (Labor & other inputs into production)
- the **Financial Assets Market** (where borrowing and lending occurs)

Macromodeling without Gender: 3 Markets and 3 Economic Agents

In Standard Macroeconomics there are three types of economic agents that interact with each other in these markets: **Households, Firms and the Government**. Economic agents appear in the role of buyer in one market and as sellers in another.

- In the **Goods market** firms supply goods and services. Households and the government appear as buyers of consumption goods and other firms appear as buyers of investment goods.
- In the **Input market** firms enter as purchasers of labor services and land and machinery and households appear as sellers of these services
- In the **Assets market**, households supply savings and, firms, government or other households borrow to finance their expenditures.

Gender-aware Macroeconomic Analysis: what for and how

IMPACT ANALYSIS

- to **predict** possible differentiated outcomes for **men and women** (employment, care activities etc)
- to **inform** how gender differences may affect the achievement of **policy goal** (expenditures patterns and health/education of children)
- to **make transparent** how build-in gender biases (bank's lending practices, ROSCA's etc) are inequitable and at times **inefficient** for people and for the economy

Gender-aware Macroeconomic Analysis: what for and how

HOW?

- Change the overall vision of the articulation of the “economy”:
 - Households
 - a) consume and save, **BUT ALSO**
 - b) produce goods and services
 - c) “produce” and reproduce human beings
- Disaggregate labor into: formal paid, informal paid, unpaid labor

Gender-aware Macro modeling: How has this been done?

- **Gender disaggregation method:** men and women exhibit different behavior patterns in investment, savings and consumption
- **Gendered variable method:** recognizes existing patterns of gender biases such as in the labor market and in lending for investment
- **Two sector/system method:** the unpaid household care economy is introduced alongside the monetized-paid- one

Gender and the household sector (HH) then must be articulated with the rest of the economy in a more complex manner. HH is influenced and it influences the rest of the economy beyond the fact that it consumes and it saves. We refer then to that as the household production sector or household care economy

All of these models based on the 1995 and 2000 *World Development* special issues on "Gender, Macroeconomics and Globalisation" and "Gender, Adjustment and Macroeconomics" (Cagatay, Elson, and Grown)]

are **analytical** ones that help us think about ways to incorporate gender dimensions and the hh care economy. They also help us to move on to **empirical** ones depending on the question at hand, by incorporating actual historical data that National Statistical Agencies and International Organizations collect or need to be collecting so as to construct gender-aware models.

SOCIAL ACCOUNTING MATRIX

What is a Social Accounting Matrix?

- A Social Accounting Matrix, SAM, is a snapshot of the economy at a point in time. A SAM captures transactions in the economy (both income and expenditure) like double-entry accounting but the SAM contains much more than just the macro aggregates.
- A SAM, though similar to a standard input-output model which systematically captures production relationships, has the added advantage of capturing **income distribution and consumption relationships** within the economy in an internally consistent manner.

What is a Social Accounting Matrix? continued

A SAM IS COMPOSED OF SIX TYPES OF ACCOUNTS

(Sadoulet and de Janvry 1995).

- production activities
- types of commodities produced
- factors of production (labour and capital)
- institutions (households firms and government)
- the country's capital account (international) and
- the rest of the world (exports and imports)

		Expenditures				
		Endogenous Accounts			Exogenous accts	Totals
		Factors (1)	Institutions (HH & firms) (2)	Production Activities (3)	Gov, ROW & capital (4)	^{^(5)}
Incomes	Factors (1)	0	0	T_{13}	X_1	Y_1
	Institutions (HH & firms) (2)	T_{21}	T_{22}	0	X_2	Y_2
	Production Activities (3)	0	T_{32}	T_{33}	X_3	Y_3
	<i>Exogenous accts</i>					
	Gov, ROW & capital (4)	I_1	I_2	I_3	t	Y_x
	Totals (5)	Y_1	Y_2	Y_3	Y_x	

ENGENDERING THE STANDARD SAM

- by disaggregating labour by gender and skill level
- **by using the findings from TUS, to incorporate unpaid care work (and informal work) into all sectors-sites of production ,which are the market, the State, the household and the NGO sector**
- by using the simple analytically tractable linear models (SAM multipliers) we can develop a better understanding of the gendered impact of economic events and “external” shocks (for instance cutting down of government expenditure).

ENGENDERING THE STANDARD SAM

- **Here, household classification can be done by social economic characteristics which bring out the gender distinctive economic and social roles, behaviors and options of different sections of society, of women and more specifically of poor women.**
- **This HH classification can clearly vary. Duchin (1998) states that in a developing country most households operate within an informal economy and in many instances their number increases with modernization.**
- **Therefore, it becomes important to study how such households are interlinked with the overall economy and the process of growth. Their behavior, in relation to consumption, tax, savings and credit demand is likely to be different from households that earn income mainly from the formal economy**

A few remarks on the LIMIEW

- Where do the goods and services that affect our material, economic wellbeing (or deprivation) come from?
- how do levels of economic well-being differ across ethnicity, gender, race, age, and occupations?

Three Characteristics of the LIMEW

- in contrast to similar available indicators which have been constructed for the total population or for the mean, this is a household-level measure that is constructed for all different quintiles of income distribution
- its focus is on components that can be converted into money equivalents (work satisfaction etc. excluded)
- the methodology used is that of a SAM

Basic Concept

- per capita gdp and money income, the yardstick used in current official measures, reflects the command of households over commodities **ONLY. BUT**
- the **ACCESS** individuals have over the necessities and conveniences of life produced in an economy is mediated by three key institutions-- **MARKET, HOUSEHOLDS** and the **STATE (and NGO's)**
- therefore, gdp/pp and money income do not reflect the command (or lack of) hh experience over the necessities and conveniences of life completely

How the Market is treated

Both

Income & Wealth

must be considered

The State

- cash and non-cash transfers
- direct and indirect taxes
- direct provisioning of goods and services *(as in the case of schooling and highways)*.

Note: activities undertaken on behalf of the business sector are excluded (corporate subsidies for example are viewed as social overhead)

Household Production

Three categories of unpaid activities of "household production" are included:

- Core production activities such as cleaning, cooking etc.
- Distribution activities such as shopping for food, errands etc.
- Childcare activities such as feeding and bathing, teaching etc

Two principal strands of research that are of interest within the LIMEW analytical framework from a gender perspective in my view:

- Incorporate within the HH the clear possibility of depletion of human capabilities (overworked or the issue of “leisure”)
- Keep track of gender inequalities in HH production: who contributes/how much