

A Framework for Nonmarket Accounting

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CNSTAT Panel on the Design of Nonmarket Accounts

- Panel members: Dora Costa, David Cutler, Nancy Folbre, Barbara Fraumeni, Robert Hall, Daniel Hamermesh, Alan Krueger, Robert Michael, Henry Peskin, Matthew Shapiro, Burton Weisbrod and Katharine Abraham (Chair)
- Study Director: Christopher Mackie

CNSTAT Panel on the Design of Nonmarket Accounts (continued)

- Panel charged to “... review current approaches [to nonmarket accounting], examine data requirements and limitations, determine the priorities for developing nonmarket accounts, and suggest further research to strengthen the knowledge base about nonmarket accounting.”

CNSTAT Panel on the Design of Nonmarket Accounts (continued)

- Panel held first meeting April 2002
- Draft of final report to be submitted for review December 2003
- Conference paper will focus on framework and conceptual issues taken up by the panel, drawing heavily on the panel's work

CNSTAT Panel on the Design of Nonmarket Accounts (continued)

Framework and conceptual issues:

- Desired scope of a system of nonmarket accounts
- Relationship between nonmarket satellite accounts and the existing NIPAs
- Adaptation of the double-entry bookkeeping approach used in the NIPAs for nonmarket satellite accounts

CNSTAT Panel on the Design of Nonmarket Accounts (continued)

Framework and conceptual issues (cont'd):

- Measurement of input quantities and prices, especially the valuation of time devoted to nonmarket production
- Measurement of output quantities and prices, including the question of whether marginal or total valuations should be used

CNSTAT Panel on the Design of Nonmarket Accounts (continued)

Areas of activity to be explored include:

- Household production
- Investments in children
- Investments in formal education
- Investments in health
- Selected activities of the government and nonprofit sectors
- Investment in (social and) environmental assets

Why Study Nonmarket Activity?

Accounting for nonmarket activity important for understanding:

- Trend in economic activity
- Cyclical fluctuations in economic activity
- Saving and investment
- Economic inequality

Defining the Scope for Nonmarket Accounts

- Outputs versus outcomes (well-being)
- Margaret Reid's 3rd party criterion – could I have hired someone else to produce the output for me? – one basis for drawing boundary
- 3rd party rule seems fine for traditional household production, but also want to include investments in nonmarketable assets

Relationship between Nonmarket Accounts and the NIPAs

- To the extent possible, nonmarket inputs and outputs should be valued in dollars.
- Consistency with the NIPAs implies the use of marginal rather than total valuation, but that may not always be the best choice (more on this in a moment).

Relationship between Nonmarket Accounts and the NIPAs (continued)

- Many activities a mix of market inputs, nonmarket inputs, and nonmarket outputs. Examples: household production, education, nonprofit sector.
- Nonmarket satellite accounts do not need to be integrated with the NIPAs or with each other.

Adaptation of Double-Entry Bookkeeping for Nonmarket Accounts

- One of the strengths of the NIPAs the check provided by double entry bookkeeping.
- For nonmarket accounts, value of inputs need not equal value of outputs.
- Still want independent measurement of nonmarket inputs and outputs. Necessary for assessing productivity and the efficiency of resource allocation.

Input Quantities and Prices

- For market activity, generally start with dollar aggregates and derive quantity indexes. For nonmarket activity, more common to start with quantities and assign valuations.
- Purchased inputs to nonmarket activity should already be reflected in the NIPAs and should be relatively easy to measure. Labor inputs often not reflected.

Valuing Labor Input

- Development of the American Time Use Survey (ATUS) a boon to development of nonmarket accounts
- Past efforts to value labor input:
 - Replacement wage, generalist
 - Replacement wage, specialist
 - Opportunity cost
- Conceptual ideal: Quality-adjusted wage rate?

Output Quantities and Prices

- Many past nonmarket accounting efforts have used input valuations as a proxy for output valuations. Good reasons to prefer direct output valuation where possible.
- Techniques for valuing nonmarket output may include identifying market substitutes, valuing flows of marketed services, or using market transactions to value nonmarketed service flows.

Output Quantities and Prices (cont'd)

Appropriate technique will depend upon the nature of the nonmarket output:

- Consumption goods and services with close market substitutes (home-cooked meals)
- Nonmarketable assets that yield a flow of marketable services over time (education)
- Nonmarketable assets that yield a flow of nonmarketable services over time (health)
- Public goods and services (air quality)

Marginal versus Total Valuation of Nonmarket Output

- Comparability with the NIPAs argues for marginal rather than total output valuations.
- Use of marginal valuations suitable for private goods and services characterized by constant returns to scale, but not for goods and services characterized by increasing returns to scale or significant externalities.
- Examples: investments in new medical treatment, evaluation of clean air policies.

Data Needs

Final subject for discussion the data needed for the development of nonmarket accounts.