
Arnold J. Katz
IARIW-BOK Special Conference
Seoul, Korea
April 26, 2017
The Bureau of Economic Analysis (BEA) publishes the U.S. National Income and Product Accounts (NIPAs).

Gross Domestic Product (GDP) is its headline measure of production.
Outline of Presentation

• Early history of GDP and the NIPAs.

• Early conceptual debates.

• Efforts by BEA to move beyond the initial version of the NIPAs.

• Efforts at the Commerce Department to measure the size distribution of income.

• Author’s views on the way forward.
Founding of the NIPAs

• BEA first publishes GDP in March 1942.

• Gilbert, Denison, Jaszi, and Schwartz found the NIPAs. They are first published in July 1947.

• NIPA design:
  – Summary accounts show how the major aggregates are interrelated.
  – Greater detail is shown in subordinate tables.
  – Basic design is still used today.
NIPAs Rise To Prominence

• The National Bureau of Economic Research (NBER) publishes 2 important reports in 1958.

  – Proceedings of a conference devoted exclusively to critiquing the NIPAs. The lead paper is Jaszi’s “The Conceptual Basis of the Accounts.”

  – An NBER committee reports to Congress with its review of the NIPAs.
Expansion and Development

• 1958 – NIPAs are greatly expanded.

• 1965 – NIPAs are integrated with an input-output table.

• Subsequent changes are introduced gradually. After 1990, NIPAs move toward greater consistency with the System of National Accounts.
What is GDP?

• The circular flow – the aggregate value of goods produced equals the aggregate value of all incomes from production.

• An old definition – GDP is the summation of the market values of final products.

• Central Problems
  – Which products are “final?”
  – What is their market value?
GDP and Economic Welfare

- Kuznets - GDP and economic welfare are directly connected.

- Denison - GDP is just one component of economic welfare. Other components include the “goodness” of the size distribution of income.
GDP and Planning for World War II

• In 1940, Nathan used full employment GDP to determine that the iron and steel industries needed to be expanded.

• After Pearl harbor, Nathan and Kuznets used the concept to determine how big a war effort the U.S. could support and when Europe could be invaded.
Is GDP a Subjective Concept?

Kuznets – The measurement of GDP is inherently subjective.

Jaszi – The measurement should be as objective as possible. Treatments should flow from definitions that are clear.
What are Final Products?

Kuznets – Much of government output and some products purchased by consumers are “intermediate.”

Jaszi – All products produced by government or purchased by consumers must be treated as “final.” It is impossible to construct a clear operational definition of what a final product is.
The Accounting Approach

• Is the “accounting” approach to measuring national income useful?

Kuznets – No.

Jaszi – Yes. The incomings and the outgoings of each transactor must be equal.
What Should Be GDP’s Scope?

• Mitchell et al. had a broad scope. They imputed rent for owner-occupied housing and consumer durables.

• Kuznets had a narrow scope. He initially excluded all of the above. He also excluded certain government services and consumer expenditures as being “intermediate.”
• Kuznets wanted a narrow definition of product.

• He would not narrow his definition of income.

• National income could not equal national product as required by the accounting approach.
Environmental and Nonmarket Economics

• Expenditures on pollution abatement and control are published from 1975 – 1995.

• The Measures of Economic Well-Being Branch operates from 1978-81. Published articles value: the services of consumer and government durables, changes in oil and gas reserves, household work, and investment in health.
Green GDP

• Nine BEA staffers develop the Integrated Economic and Environmental Satellite Accounts. They are described in two articles published in 1994 that explore conceptual issues and provide estimates for mineral resources.

• Congress orders BEA to stop this work.
• 1995 - Government durables are capitalized.
• 1999 - Computer software is capitalized.
• 2013 - Expenditures on research and development are capitalized.
• 2013 - Expenditures on literary, entertainment and artistic originals are capitalized.
Additional Satellite Accounts

• An arts and cultural production satellite accounts is first released in 2015.

• A health care satellite account is published in 2015 based on expenditures on specific diseases.
Size Distribution of Income

• From 1953 – 1974, BEA publishes estimates of the size distribution of personal income.

• Cooper and Katz (1978) develop a definition of in-kind income for distributional work.
  – Income is the receipt of an economic right that others do not have.
  – In-kind income is a right that is constrained or abridged. Constraints lower its value.
  – Hicksian measures of “cash-equivalent value” (cev) can be estimated from observable data.
Distributional Work at the Census Bureau

• The Census Bureau published size distributions of income from 1944 on.

• Starting in the 1980’s, the value of major in-kind benefits was included in its distributions. Some estimates used the cev concept.

• At one point estimates were made for 15 alternative definitions of income.
Recommendations for Size Distributions of Income

• Schanz (1892), Haig (1921), and Simons (1938) developed broad definitions of income.
  – They all included capital gains and in-kind income in their measures.
  – Schanz and Simons also included the services of consumer durable goods.

• We need to be at least as bold as they were and include these items in our measures.

• In-kind income is huge and growing; we should stop treating it like cash.
Recommendations for National Accounts - I

• We should distinguish between work that can be put in the main accounts and work that should be put into satellite accounts.

• The main accounts
  – Consumer durable goods should be treated as fixed assets.
  – Capital gains should be recorded as an addenda item.
  – Greater efforts should be made to collect data on executive perquisites and other in-kind income.
• **Satellite Accounts**
  
  – In kind-income should be valued using cash-equivalent values or similar measures.
  
  – Insights from Smolensky et al. (1977) may be useful in getting the accounts to balance.