Going Beyond GDP: Opportunities and Challenges

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National Income Accounting (SNA)

- Income accounting is narrow – a large amount of economic data is excluded
  - low demand for the data
  - data are difficult to collect
- Income accounting is not sufficient for answering many economic questions
  - well-being is not equivalent to GDP
  - growth in GDP does not indicate sustainability
Example: Trinidad and Tobago

- Two small islands just off the coast of South America in the Caribbean
- 1.2 million people
- 8% annual GDP growth (until recently)
- High level of international business, well-regulated and stable financial system
- In 2011, the OECD moved Trinidad and Tobago from developing country status to developed country status
GDP per capita, PPP
(current international dollars)

- $5,000
- $10,000
- $15,000
- $20,000
- $25,000
- $30,000

- Trinidad and Tobago
- World

GDP may be misleading . . .

- 50% of Trinidad and Tobago’s GDP is oil, minerals, and natural gas extraction
  - 0.2% of world natural gas reserves
  - 1.3% of world natural gas production
- The average worker spends 4 hours per day commuting
- 11.9 Expected years of schooling compared to the average in Latin America and the Caribbean of 13.7
Is the income growth sustainable?

- Is the income from the extraction of mineral and energy resources being consumed or is it being invested?
  - Investment (in equipment, machinery, buildings, roads, ports, education, etc.) yields future income
  - Consumption does not yield future income
  - Investment includes allowing natural resources (forests, fisheries) to grow
Various Beyond GDP Options

- **Adjustments to GDP**
  - Green GDP, sustainable GDP

- **Social Indicators**
  - Indices of life expectancy, poverty, unemployment, education, HDI

- **Environmental Indicators**
  - Measures of water and air pollution, climate change, forest cover

- **Direct Measures of Happiness**
National Wealth Accounting

- Theoretically rigorous approach:
  - Potential intergenerational well-being does not decline if and only if a comprehensive measure of the country’s wealth does not decline (Dasgupta, 2001)
- No assumptions about optimality, no forecasts about the country’s choices
- Direct measurement of the productive base which is called:
  - **comprehensive wealth** (Arrow et al., 2012)
  - **inclusive wealth** (UNU-IHDP, 2012).
    \[ W_t = \sum_i p_{it} K_{it} \]
- Sustainability means wealth does not decline
Example of the Firm

- Suppose you wanted to evaluate the health of a company to predict future profits.
- Suppose that you only had access to the income statement (annual revenues and expenses) and not the balance sheet (value of all assets and liabilities).
- How could you distinguish a company that was selling off assets from one that was selling the goods it produced?
Wealth Accounting Challenges

- **Reproducible capital** – only investment is measured in the national accounts
- **Natural capital** – forest, mineral, and energy stocks are measured; shadow prices are difficult to measure
- **Human Capital** – education and wage data is available, but a dollar invested in education does not imply a dollar of additional wealth (productive base)
  - good health improves productivity, but also directly improves well-being through feeling better and longer life; valuation is unclear
Thank you

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