System of National Accounts

Training of Trainers
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Background

• Origins date back to 17th century: focus was on ability of governments to wage war
• 20th century: 1930s depression and WW2
• Keynes, Kuznets, Stone et al
• 1953 SNA: rudimentary by present standards
• 1968 SNA (GDP, not GNP)
• Focus on flows: "volume" measures, production, consumption, savings and investment
• 1993 SNA: complete set of accounts, covering balance sheets (including NPNF Assets)
• 2008 SNA: update of 1993 SNA
Economic underpinnings

- Between 1953 SNA and 2008 SNA much changed but one thing remained more or less constant: production boundary
- Focus on market and market-oriented activity
- Valuations: market prices
- Not welfare measure (though often used as one)
- (Most) activity within household for own consumption excluded
Economic underpinnings

• SNA policy oriented from beginning:
• 1930s Depression: governments largely ineffectual and operating in a vacuum: belief system would rectify itself (market always in equilibrium)
• No framework for analysis
• Need to measure what can be affected by policy and build models from data within theoretical framework (interest rates, fiscal measures (increase in gov’t spending, increase in taxes, devaluation, etc.)
Residence and institutional units

• Residence essential building block for inclusion in national accounts of any given economy

• Institutional unit:
  – Must be resident in only one economy
  – For twelve months or intention to be resident for twelve months
  – Corporations resident where registered or legal domicile (branches)
  – Able to acquire assets, incur liabilities in own right
Comparison with Business Accounting

• Business account:
  – Income and expenditure statement
  – Statement of retained earnings
  – Capital accumulation account
  – Cash flow statement (Statement of Changes in Financial Position)
  – Balance sheets

• Focus on impact on shareholders’ wealth, how funds have been employed and whether utilized effectively and as efficiently
Sequencing of accounts in SNA

- Production Account
- Generation of Income Account
- Allocation of Primary Income Account
- Secondary Distribution of Income Account
- Use of Income Account
- Capital Account
- Financial Account
- Other Changes in Assets Account
- Balance Sheet
Sequencing of accounts in SNA (cont)

• Each with balancing item of analytical value
• All by sector
  – General Government, Nonfinancial Corporations, Financial Corporations, Households, Non-Profit Institutions Serving Households, Rest of World
Production Account

• An activity, carried out under the responsibility, control and management of an institutional unit, that uses inputs or labour, capital, and goods and services to produce output of goods and services.

• Balancing item(s):

• Gross Output less Intermediate Consumption equals Gross Value Added less COFC equals

• Net Value Added (GOS less) for economy (GDP) and by industry
Supply and Use Tables

• Further articulation of Production Account
• Provides commodity balances (supply = use)
• Provides very detailed commodity data that go into production of goods and services by industry
• E.g., Australia has 1000 commodities/80 industries
• Use table also provides final expenditure (consumption and capital formation)
• Balancing item: Value Added (by industry and for economy as whole)
• SUT basis for Input/Output analysis (e.g., for measurement of productivity)
GDP at market prices

- Can be calculated three ways:
  - Final expenditure approach
  - Income approach (Generation of Income: see next slide)
  - Production approach (gross output less intermediate inputs)
- All conceptually equal
Generation of Income Account

- Elaboration on production account
- Represents return to factors of production: labor (compensation of employees: all costs of labor, not just wages) and capital (produced capital and environment (land, subsoil assets, forests, etc.) plus taxes on production less subsidies. Returns to ownership of property (such as financial assets (interest, dividends) and environment (rent) included with returns to capital (these returns captured in

- **Balancing item:** GDP (GVA) or NDP (NVA)
Allocation of Primary Income Account

- Focus on institutional units/sectors as recipients of primary incomes
- Shows where items payable in generation of income account are receivable but also shows property income (interest, dividends, rent, etc.) payable and receivable
- Includes property income payable/receivable from abroad so balancing item:
- Gross (Net) Balance of Primary Income and National Income (used to be called GNP)
Secondary Distribution of Income Account

• Apart from balance of primary income and balancing item in this account, all other items transfers – that is, a transaction for which there is no quid pro quo (such as income taxes, social contributions, social benefits, fines), including transfers with nonresidents

• Balancing item:

• Gross/Net (National) Disposable Income
Use of Income Account

• Purpose to show how households, general government, and NPISHs allocate disposable income between (final) consumption and saving

• *Balancing item*:

• Gross (Net) Saving (Current External Balance – Current Account of BOP)

• Saving adjusted to reflect *net change in pension entitlements*. No adjustment for depletion or degradation
Capital Account

- First of 4 accounts dealing with changes in value of assets held by institutional units
- Records transactions in nonfinancial assets (also includes capital transfers)
- Focus of account on acquisition/disposal and use (COFC) of produced assets: fixed and inventories
- Also records net acquisition of nonproduced nonfinancial assets
- *Balancing item*: Net Borrowing/Lending
Financial Account

• Measures transactions in financial assets and liabilities, by type of instrument (deposits, loans, debt securities, shares and other equity, etc.)

• Focus on financial corporations (intermediaries) and financial instruments

• \textit{Balancing item}

• Net lending/borrowing
Financial Account

• Source of funds = Use of funds
• Saving + Net Incurrence of liabilities = GFCF + Net change in Inventories + Net acquisition of NPNFA + net acquisition of financial assets
• Saving – GFCF – Net Change in Inventories - Net acquisition of NPNFA = NL/B
• Net acquisition of financial assets – net incurrence of liabilities = NL/B. Therefore,
• Saving – GFCF – Net Change in Inventories - Net acquisition of NPNFA = Net acquisition of financial assets – net incurrence of liabilities = NL/B
Other Changes in Assets Account

• Sometimes referred to as “other flows”: accounts for all changes between opening and closing balance sheets that are not accounted for by transactions

• Comprise
  – Changes in volume
  – Revaluations
Other Changes in Volume of Assets Account

• Economic Appearance of (NPNF) Assets:
  – Discoveries, Upward Reappraisals, Growth (of natural forests, fish stock, etc.), Change of land usage (e.g., from outside the production boundary to within, from agricultural to residential). NB: Land improvements = GFCF

• Economic Disappearance of NPNFA: Reverse of above:
  – Depletion/Abstraction (should be recorded gross of growth but may have to be net); downward reappraisals, change in economic use of land, etc.

• Catastrophic Losses: earthquakes, hurricanes, fires, drought, spills, etc.

• Balancing item: Changes in net worth due to other changes in volume
Other Changes in Assets Account

- Revaluations
- Covers changes in value of assets due to changes in price/exchange rate in nominal terms
- Can be broken down between real and neutral gains/losses
- *Balancing item:* Changes in net worth due to nominal holding gains/losses
Balance sheet

• Opening and closing set of assets and liabilities
• Assets cover produced and nonproduced nonfinancial assets and financial assets
• Liabilities cover all debt instruments and equity
• **Balancing item:** Net worth
• All preceding accounts account for changes in net worth between opening and closing balance sheets
• Brings us back to business accounting
SNA and SEEA

• Where are environmental assets captured in SNA?

• What changes/adjustments necessary for link with SEEA?