

# System of National Accounts

Training of Trainers

John Joisce

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# Background

- Origins date back to 17<sup>th</sup> century: focus was on ability of governments to wage war
- 20<sup>th</sup> 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
- *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?