Lesson VI: Sequence of Accounts

An Introduction to System of National Accounts -
Basic Concepts

Fifth e-Learning Course on the 2008 System of National Accounts

May 2014 – July 2014
Content

- Presentation of Accounts
- Sequence of Accounts
- Asset Boundary
Lesson Objectives

- The objectives of this lesson is to:
  - Present SNA accounts as an integrated system that follow a systematic sequence;
  - Explain balancing items of different accounts and their inter-linkages;
  - Discuss concept of asset and asset boundary
The system of accounts provides a record of economic activities based on a set of internationally agreed concepts, definitions, classifications and accounting rules.

All the accounts are interconnected and each is linked to a certain type of economic activity.

The balancing items of each account (calculated as the difference between the resources and uses) are vital indicators of economic activity.
Presentation Of The Accounts

- Accounts are compiled for institutional sectors: 
  households, legal entities and external sector

- Transactions between the sectors are recorded in a 
  double-entry/ quadruple entry system to ensure 
  vertical and horizontal balancing of accounts

- Integrated economic accounts
There are three main types of accounts:

- Current Accounts (production account, income accounts)
- Accumulation accounts (capital account, financial account, other changes in assets accounts)
- Balance sheets
# Sequence of Accounts

<table>
<thead>
<tr>
<th>Accounts</th>
<th>Balancing Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURRENT ACCOUNTS</strong></td>
<td></td>
</tr>
<tr>
<td>I Production Account</td>
<td>Value Added/GDP</td>
</tr>
<tr>
<td>II Distribution and Use of Income Accounts</td>
<td></td>
</tr>
<tr>
<td>Generation of Income Account</td>
<td>Operating Surplus and Mixed Income</td>
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<tr>
<td>Allocation of Primary Income Account</td>
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<tr>
<td>Secondary Distribution of Income Account</td>
<td>Disposable Income/</td>
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<tr>
<td>Redistribution of <em>income in kind</em> Account</td>
<td>National Disposable Income</td>
</tr>
<tr>
<td>Use of Disposable Income Account</td>
<td><em>Adjusted Disposable Income</em></td>
</tr>
<tr>
<td>Use of Adjusted Disposable Income Account</td>
<td>Saving</td>
</tr>
</tbody>
</table>
## Sequence of Accounts

<table>
<thead>
<tr>
<th>Accounts</th>
<th>Balancing Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>III ACCUMULATION ACCOUNTS</td>
<td></td>
</tr>
<tr>
<td>Capital Account</td>
<td>Net Lending/Net Borrowing</td>
</tr>
<tr>
<td>Financial Account</td>
<td>Net Lending/Net Borrowing</td>
</tr>
<tr>
<td>Other Changes in Volume of Assets Account</td>
<td>Changes in Net Worth due to Other Changes in Assets</td>
</tr>
<tr>
<td>Revaluation Account</td>
<td>Changes in Net Worth due to Nominal Holding Gains or Losses</td>
</tr>
</tbody>
</table>

## IV BALANCE SHEETS

In addition:

- The Goods and Services Account
- The Rest of the World Account
Production Account

Records the activity of producing goods and services, as defined by the production boundary. Its balancing item is *gross value added* (the value of output less the value of intermediate consumption).

\[
\text{Output (DP)} \quad \text{minus} \quad \text{Intermediate Consumption (IC)} \\
= \text{VALUE ADDED, GROSS} \\
\text{plus} \quad \text{Taxes less Subsidies on Products} \\
= \text{GDP}
\]
The SNA Production Boundary

- Includes the production of all goods and services that are paid for

Specific cases

- Output Government & NPISHs: in
- Owner occupied housing: in
- Do-it-yourself activities: out
- Domestic serves, unpaid: out
- Domestic services, paid: in
- Criminal activities: depends
The income accounts describe four stages:

- generation of income and distribution of primary income;
- secondary distribution of income;
- redistribution of income in kind;
- use of income.
Generation of Income Account

GDP
minus Compensation of Employees (CE)
minus Taxes less subsidies on products (TP)
minus Other taxes less subsidies on production (OTP)
= Operating Surplus, gross (OS)/Mixed Income, gross (MI)

It shows how the value added/GDP can cover compensation of employees and other taxes less subsidies on production.
The balancing item is **Operating Surplus/Mixed Income**

- **Operating Surplus** – income obtained from the unit's own use of production facilities
- **Mixed Income** – unincorporated enterprises of the household sector (contains an element corresponding to remuneration for work carried out by the owner)
- However, own account production services by owner-occupied households – **Operating Surplus** because there is no labor input
Allocation Of Primary Income Account

- Concerns the resident units/institutional sectors as recipients rather than producers
- It can be calculated only for institutional sectors not for activities
- **Primary income** – the income which resident units receive by virtue of their direct participation in the production process
Primary Distribution Of Income Account

GDP

minus Compensation of employees paid to nonresident employees

plus Compensation of employees received from nonresident producers

minus Property income paid to nonresidents

plus Property income received from nonresidents

= Gross National Income (GNI)
Secondary Distribution Of Income Account

- Shows how balance of primary income is allocated by redistribution - current taxes on income, social contributions and benefits, other current transfers
- Balancing item — disposable income (excludes capital transfers, real holding gains/losses)
Secondary Distribution of Income Account

GNI
plus Taxes on income and wealth (net, receivable) from abroad
plus Social contributions and benefits and other current transfers (net, receivable) from abroad
= Gross National Disposable Income (GNDI)

Note recording of social contributions:
- on the Uses side of households
- on the Resources side of government, financial, and NPISH sectors
Redistribution of Income in Kind Account

- Includes the social transfers in kind
- Social transfers in kind are recorded as Resources for Households and as Uses for GG and NPISHs
- By convention, there are no social transfers in kind with the ROW
- The Balancing item is Adjusted Disposable Income (equal to Disposable Income for the total economy)
Use of Income Account

- Shows how disposable income is divided between final consumption and savings
- Only GG, NPISH and Households have Final Consumption
- Saving is the balancing item for both versions of the Use of Income Account
- Saving can be positive or negative
Use of Income Account

GNDI

less Final Consumption Expenditure

= Saving, gross
Accumulation Accounts

- The Production and Income Accounts are the current accounts of the system and record transactions in income and expenses.

- The Capital, Financial, and Other Changes In Assets Accounts are the accumulation accounts of the system and record flows in assets and liabilities.
Capital Account

Records acquisitions and disposals of non-financial assets as a result of transactions with other units or internal bookkeeping transactions linked to production (own account capital formation, changes in inventories and consumption of fixed capital)

Shows how saving is used to finance capital formation.

If capital formation exceeds saving then funds need to be borrowed (or financial assets used), whereas the converse provides funds for net lending.
Saving, gross

plus  Capital transfers (net, receivable)

minus  Gross capital formation
    (gross fixed capital formation + changes in inventories + net acquisition of valuables)

plus  Net acquisition of non-produced non-financial assets

=  \textit{Net lending (+)/borrowing (-)}
Asset Boundary

- What are assets?
  - Assets are entities involving:
    - Ownership rights
    - Economic benefits derived from use or holding

- Benefits derive from:
  - Use in production
  - Generation of property income (interest, dividends, rent)
  - Store of value
Asset Boundary

- Boundary between intermediate consumption (IC) and Gross fixed capital formation (GFCF)

- IC measures the value of goods and services that are transformed or entirely used up in production.

- GFCF measures the acquisition of fixed assets for use repeatedly in the production process.
Asset Boundary

- Borderline Issues
  - Research and development: record expenditure as fixed capital formation (mostly on own account, to be valued at cost) as capitalized intellectual property products or IC if no tangible benefit.
  - Mineral exploration and evaluation: all expenditures are shown as GFCF, whether successful or not.
    - Changes in 2008 SNA
Asset Boundary

Military equipment:

- Expendable durable military goods (single-use items) are treated as IC and Inventories
- Delivery equipment, such as ships, aircraft, and weapons systems should be shown as GFCF
- Assets that could have a civilian use, such as buildings, roads, airfields, trucks, should be shown as GFCF
- Weapons acquired by police should be shown as GFCF
Classification of Assets

- Non-financial assets
  - Produced assets
    - Fixed assets
      - Tangible fixed assets
      - Cost of ownership transfer of non-produced assets
      - Intellectual property products
    - Inventories
    - Valuables
  - Non-produced assets
    - Natural resources
    - Contracts, leases and licenses
    - Goodwill and marketing assets

- Financial Assets
Financial assets/liabilities

- Financial assets are contractual agreements that:
  - (1) establish a debtor/creditor relationship between units; or
  - (2) represent an ownership relationship between units; or
  - (3) are classified by convention as financial assets

- Liabilities are the counterpart to (1) and (2)
Financial assets/liabilities

- Debtor/creditor relationship
  - must be unconditional and equally binding on both units
  - involve a financial claim by one unit on another, i.e., one unit's asset is another unit's liability
  - contingencies and conditional arrangements (such as guarantees, lines of credit) are NOT financial assets
  - there is symmetry between financial assets and liabilities
  - there are no non-financial liabilities
Financial Account

Records the acquisition and disposal of financial assets and liabilities, and shows how net lending from the capital account is reflected in transactions in these financial instruments.

**Net lending/borrowing**

\[
= \text{net acquisition of financial assets} \quad \text{minus} \quad \text{net incurrence of liabilities}
\]
Other Changes in Assets Accounts

- These two accounts provide information on changes in the value of assets and liabilities as a result of factors other than transactions.

  - **Other Changes in Volume of Assets Account:** Records volume changes such as destruction of fixed assets by natural disasters.

  - **Revaluation Account:** Records revaluations due to price changes (including exchange rates)
Balance Sheets

Show the market value of the stock of assets and liabilities at the beginning and end of an accounting period.

The difference between the values in opening and closing balance sheets is accounted for by the accumulation accounts, either as transactions or as other changes.
Opening and Closing Balance Sheets, Changes in Balance Sheets Positions

\[ \text{OBS} + T + \text{OF} = \text{CBS} \]

Where:

- OBS is the Opening balance sheet position
- T is transactions
- OF is other economic flows
- CBS is the Closing balance sheet position
Goods and Services Account

Total supply of goods and services
= Total use of the same goods and services

\[ M + DP + TP = IC + FC + CF + X \]
## Goods and Services Account

<table>
<thead>
<tr>
<th>Resources</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>Intermediate consumption</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>HH and NPI SHs consumption expenditure</td>
</tr>
<tr>
<td>Taxes less subsidies on products</td>
<td>GG consumption</td>
</tr>
<tr>
<td></td>
<td>Gross fixed capital formation</td>
</tr>
<tr>
<td></td>
<td>Changes in inventories</td>
</tr>
<tr>
<td></td>
<td>Acquisitions less depositions of valuables</td>
</tr>
<tr>
<td></td>
<td>Exports of goods and services</td>
</tr>
</tbody>
</table>
Rest of the World Account

- Records transactions between resident and non-resident units
- Same presentation as an institutional sector account - current accounts, accumulation accounts, balance sheets
- Accounts are drawn up from the point of the rest of the world
- ROW does not constitute an institutional sector, but plays a similar role
Integrated Economic Accounts

- Bring into one table the accounts of all institutional sectors, the total economy, and the ROW
- Uses, assets, changes in assets are recorded on the left side
- Resources, liabilities, and changes in liabilities and net worth are recorded on the right side
- Columns – institutional sectors, total economy, ROW
- Rows – transactions, assets, liabilities, balancing items, and aggregates
End of Lesson IV