WEBINAR SERIES ON SELECTED TOPICS IN THE SYSTEM OF NATIONAL ACCOUNTS

Day 1-SNA 2008 Framework Part 2
The SNA is a system of accounts designed to measure stocks of, and changes in, economic value and to identify the person, group of persons, legal or social entity with claims on the economic value.

- Stocks measure economic value **at a point in time**.
- Flows measure changes in economic value **over a period of time**.
Stocks and flows

Stocks are a position in, or holdings of, assets and liabilities at a point in time.

The SNA records stocks in accounts–balance sheets–compiled in respect of the **beginning and end of the accounting period**.

However, stocks are connected with flows: they result from the accumulation of prior transactions and other flows, and they are changed by transactions and other flows in the period.
Assets and Liabilities

An asset is a store of value representing a benefit or series of benefits accruing to the economic owner by holding or using the entity over a period of time (carrying forward value from one accounting period to another).

Assets may be financial in nature or not.

For almost all financial assets, there is a corresponding [financial] liability.

A liability is established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or series of payments to another unit (the creditor).
Economic flows

• In the economy, institutional units have various economic functions:
  ➢ they produce, consume, save, invest, etc.
  ➢ the actions they undertake are aimed at creating, transforming, exchanging, transferring economic value, or changing the volume, composition or value of assets and liabilities.

  All these actions are economic flows.
Transactions

Transactions are economic flows that result from interaction between institutional units by mutual agreement and can take place within institutional units or between establishments belonging to the same enterprise.
The main types of transactions

- Transactions in goods and services (products)
- Distributive transactions
- Transactions in financial instruments
- Other accumulation entries
Transactions in goods and services

Transactions in goods and services (products) describe the supply of products (domestic output or imports) and the use of products (intermediate consumption, final consumption, capital formation or exports).

(An example would be the output of shirts produced by an enterprise, the intermediate consumption of textiles and buttons used in the production of the shirts, investments in a new sewing machine, etc.)
Distributive transactions

- transactions by which the income generated in production (value added) is distributed as compensation of employees, or as taxes on production and imports (less subsidies), or as property income to different institutional sectors and the rest of the world

(for instance gross salaries paid by the enterprise manufacturing shirts to its employees);

- transactions by which the generated income is redistributed as transfers between institutional sectors and/or the rest of the world

(e.g. a general insurance premium paid by the enterprise for the building where the shirts are produced).
Transactions in financial instruments include acquisitions and disposals of financial assets and incurrence, net of liabilities (e.g. the manufacturing enterprise pays for the raw material by cheque, with money from the deposit in national currency constituted in a bank).
Other accumulation entries

Other accumulation entries, as results of the transactions defined above which enable the change in the net worth of an institutional unit or sector between the beginning and end of the accounting period

(e.g. the consumption of fixed capital registered for the machinery used in the production of bread in a bread factory).
Other economic flows

Other flows are changes in the value of assets and liabilities that do not result from transactions.

Examples are losses due to natural disasters and the effect of price changes on the value of assets and liabilities.
Flows and stocks are recorded on both sides of accounts and balance sheets.

A balancing item is derived as the difference between the sums of the entries on both sides of an account or balance sheet. Balancing items have analytical significance of great importance. As a matter of fact, many important variables in national accounts are calculated as balancing items,

**e.g. value added.**
WHY? Classifications

- From the SNA point of view, purpose means the function relating to the type of need a transaction or group of transactions aims to satisfy. **Transactions are first analysed in the SNA according to their nature.** For certain sectors or type of transactions, they are analysed by purpose, in answer to the question ‘for what purpose?’. 
SNA recommends using the following classifications for functional analysis:

1. **COICOP - Classification of Individual Consumption by Purpose** (and of household final consumption expenditure);

2. **COFOG - Classification of the Functions of Government**
   (used to classify consumption expenditure, other current expenditure, capital expenditure and other government outlays);

3. **COPNI - Classification of the Purposes of Non-profit Institutions serving households** (used to classify the same type of transactions as for governments);

4. **Classification of Outlays of Producers by Purpose**
   (COPP) can provide information on the ‘outsourcing’ of business services.
HOW? Accounting Rules

Transactions of economic agents (who), of their actions (what) undertaken for different purposes (why) are recorded in the SNA according to clear rules (how).

These rules are related to the content of institutional units resources and uses, the valuation of transactions, the way and the time of recording them in a defined structure.
Accounting rules

Three bookkeeping principles

• vertical double-entry bookkeeping (also known in business accounting as simply double-entry bookkeeping);
• horizontal double-entry bookkeeping; and
• quadruple-entry bookkeeping.
vertical double-entry

Business accounting is based on the principle of double-entry, whereby one transaction requires two entries, in principle one credit and one debit.
National accounts reflect mutual economic relationships between different institutional units based on ‘horizontal’ double entry.

This means that if an institutional unit provides something to another institutions unit, the accounts of both units will show the transaction: as a resource in the accounts of one unit and as a use in the accounts of the other.

*As for example, the compensation of employees paid by different economic units should be equal to the sum received by employees.*
In principle, the recording of the consequences of an action as it affects all units and all sectors is based on a principle of quadruple entry accounting, because most transactions involve two institutional units. Each transaction of this type must be recorded twice by each of the two transactors involved.

A social benefit in cash paid by a government unit to a household is recorded in the accounts of government as a use under the relevant type of transfers and a negative acquisition of assets under currency and deposits; in the accounts of the household sector, it is recorded as a resource under transfers and an acquisition of assets under currency and deposit.
Time of recording

There are three moments when flows can take place, each of them defining a basis for the timing:

1. ‘cash basis’ records cash flows at the time these payments occur;
2. ‘due for payment basis’ records flows at the time they are due to be paid;
3. ‘accrual basis’ records flows at the time economic value is created, transformed, exchanged, transferred or extinguished.
The SNA favours accrual accounting because:

1. the timing of accrual accounting is in full agreement with the way economic activities and other flows are defined in the SNA.
2. accrual accounting can be applied to non-monetary flows.

Example: in May a company delivers computers to a customer who will pay for it 30 days later. Under the cash method, the revenue from this sale will be recorded in June, when the money will be received; however the accrual method requires recording the income in May, in the month when the transaction took place.
Valuation

• Under SNA a transaction must be recorded at the same value throughout all the accounts of all the sectors involved.

• Transactions are valued at the actual price agreed upon by the economic agents. The basic reference for valuation in the SNA is current market prices.

• Transaction valuation methods used in the SNA are based on more than one set of prices depending upon how taxes and subsidies on products, and also transport charges, are recorded.
A purchaser has two options to buy:

1. directly from the producer. In this case, the purchaser’s price may exceed the producer’s price by
   (a) the value of any non-deductible VAT, payable by the purchaser and
   (b) the value of any transport charges on a good paid separately by the purchaser;

2. from a wholesaler or retailer. In this case, it is necessary to consider also the trade margins that the retailer will apply.
The measurement of output in SNA is taken using two kinds of prices, namely, basic prices and producers’ prices.

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<thead>
<tr>
<th>BASIC PRICE</th>
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<tbody>
<tr>
<td>+ Taxes on products excluding invoiced VAT</td>
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<tr>
<td>- Subsidies on products</td>
</tr>
<tr>
<td>= PRODUCER’S PRICE</td>
</tr>
<tr>
<td>+ VAT not deductible by the purchaser</td>
</tr>
<tr>
<td>+ Separately invoiced transport charges</td>
</tr>
<tr>
<td>+ Wholesalers’ and retailers’ margins</td>
</tr>
<tr>
<td>= PURCHASER’S PRICES</td>
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Example

An enterprise produces cigarettes. The value of the total production costs and the enterprise profit for a packet of cigarettes is 200 units. The enterprise must pay an excise duty, which is 20% applied to the value of each packet. The packet of cigarettes is sold to a retail trader. The transport cost is valued at 10 units and the trade margin is 20 units. In the country, the value added tax (VAT) is 20%. The final consumer of the packet of cigarettes pays 324 units.

Evaluation at basic price = 200 units.
Evaluation at producer’s price = production at basic price + taxes on products
= 200 + (20% x 200) = 200 + 40 = 240 units.
Evaluation at purchaser’s price = production at producer’s price + transport cost + trade margin + VAT
= 240 + 10 + 20 + [(240 + 10 + 20) x 20%] = 324 units.
Production and Output

- **Production** is an activity, carried out by an institutional unit, that uses inputs of labour, capital, and goods and services to produce outputs of goods and services.

- There must be an institutional unit that assumes responsibility for the process and owns any goods produced as outputs or is entitled to be paid, or otherwise compensated, for the services provided.

- *A purely natural process without any human involvement or direction is not production in an economic sense.*
**Types of Output**

**Market Output:** Market output consists of output intended for sale at economically significant prices.

**Output for own final use:** Output for own final use consists of products retained by the producer for his own use as final consumption or capital formation.

**Non-market output:** Non-market output consists of goods and individual or collective services produced by non-profit institutions serving households (NPISHs) or government that are supplied free, or at prices that are not economically significant, to other institutional units or the community as a whole.