Training workshop for COSIT, Iraq
Compilation of Constant-price Estimates of National Accounts
- at National and Regional Levels
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Handout-1: Accounting Structure of the SNA – a Brief Overview

In the system of national accounts, all transactions taking place in the economy are recorded in a consistent and systematic way, by making use of accounting rules. The three most important accounting rules are:

- Total supply (domestic production and imports) and total use (domestic uses and exports) should be equal for each product.
- Total output of an industry should equal its inputs - intermediate consumption *plus* the value of factor inputs.
- Total income generated in the domestic economy should equal the value of factor inputs.

These three rules form the basis for estimation of *gross domestic product* (GDP) by what are called the *production*, *expenditure* and *income approach*.

The accounting structure of the SNA also entails other identities relating financial and non-financial transactions. These are used for integrating data from a large variety of basic sources. Although GDP in current prices can be approached from the output side, the expenditure side or the income side, in the end there should be only one GDP. Balancing the data from the three approaches is essential to ensure their consistency and completeness. The SNA helps balancing the data.

All the accounts of the SNA, except *Balance Sheets* and the *Other Changes in Assets Accounts*, are constituted of the values of items representing transactions. This set of accounts is also described as "transaction accounts". The transactions are linked to the basic economic activities of production, income generation and distribution, consumption and capital formation. They are recorded in the following sequence of accounts:

Production account	Use of income account
Generation of income account	Capital account
Allocation of primary income account	Financial account
Secondary distribution of income account	

The accounts from the production to the use of income account are called 'current accounts' while the capital and financial accounts are called 'accumulation accounts'. All these accounts together form a complete and self-contained system of accounts.

	Integrated Transaction Accounts of 1993 SNA – in Brief	
	Uses	**Resources**
Production Account	Intermediate Consumption (P.2) ***GVA / GDP (B.1)***	Output (P.1), *of which*: Market output (P.11); Output for own final use (P.12) and 'Other' non-market output (P.13). (Taxes-subsidies) on products & imports (D.21 – D.31)
Generation of income Account	Compensation of employees (D.1) (Taxes – subsidies) on production & imports (D.2 – D.3) ***Mixed income(B.3) +Operating surplus (B.2)***	***GVA / GDP (B.1)***
Primary Distribution of Income	Property Income (D.4) ***Gross National Income (B.5)***	***Mixed income (B.3) +Operating surplus (B.2)*** Compensation of employees (D.1) (Taxes – subsidies) on production & imports (D.2–D.3) Property Income (D.4)
Secondary Distribution of Income	Taxes on income & wealth payable (D.5) Social contributions & other social benefits payable (D.6) Other current transfers payable (D.7) ***Gross Disposable income (B.6)***	***Gross National Income (B.5)*** Taxes on income & wealth receivable (D.5) Social contributions & other social benefits receivable (D.6) Other current transfers receivable (D.7)
Use of Income Account	Final Consumption Expenditure (P.3), *of which*: Household FCE; Government & NPISHs FCE Adjustments for hhds' pension funds (D.8) ***Gross Savings (B.8)***	***Gross Disposable income (B.6)*** Adjustments for hhds' pension funds (D.8)
Capital Account	Gross Fixed Capital Formation (P.51) Change in Inventories (P.52) Acquisition less disposal of valuables (P.53) Acquisition less disposal of non-produced non-financial assets (K.2) *Minus* CFC (K.1) ***Net lending / borrowing (B.9)***	***Gross Savings (B.8)*** Capital transfers receivable ***minus*** capital transfers payable (D.9)
Financial Account	Net acquisition of financial assets (F.1 to F.7) ***Net lending / borrowing (B.9)***	***Net lending / borrowing (B.9)*** Net incurrence of liabilities (F.2 to F.7)

Main Aggregates for Constant-Price Estimation:

The main aggregates of interest are *gross domestic product* (GDP) and its components, *gross national income* (GNI), *gross disposable income*, final consumption expenditures and capital formation. Some these aggregates are derived as balancing items in the sequence of accounts. Thus, it is sufficient to estimate the other aggregates to compile the full sequence of transaction accounts.

At constant prices, however, it is not possible to directly measure all these aggregates. For example, the property income, being an aggregate that cannot be decomposed into its own price and volume components, cannot be measured directly at constant prices.

For constant-price estimation, therefore, we will focus only on a restricted set of aggregates. Moreover, for the aggregates that represent income, only estimation at the level of 'total economy' would be attempted. At the level of 'total economy', the aggregates which appear on both the 'use' and 'resources' sides of the above table, contribute to the balancing items only through external transactions. Thus, the list of main aggregates for constant-price estimation given below includes individual items of external transaction accounts (or accounts for rest of the world) as well. The following are the main aggregates:

i. Output (P.1)
ii. Intermediate consumption (P.2)
iii. (Taxes-subsidies) on products & imports (D.21 – D.31)
iv. Value added / **GDP** (B.1)
v. Compensation of employees (D.1)
vi. Compensation of employees from RoW – net (D.1)
vii. Mixed income (B.3) + Operating surplus (B.2)
viii. Property income from RoW – net (D.4)
ix. Gross National Income or **GNI** (B.5)
x. Other current transfers from RoW – net (mainly D.7)
xi. **Gross Disposable income** (B.6)
xii. Household Final Consumption Expenditure (HFCE);
xiii. **Government Final Consumption Expenditure** (GFCE) & Final Consumption of NPISHs
xiv. Gross Savings (B.8)
xv. Gross Fixed Capital Formation or **GFCF** (P.51)
xvi. Change in Inventories (P.52)
xvii. Consumption of Fixed Capital or **CFC** (K.1)

From a theoretical stand point, some of these aggregates are not measurable directly at constant prices. For example, *operating surplus*, being an accounting residual, cannot be decomposed directly into its price and volume components. Yet, it is included in the list, as it has been a common practice to provide components of value added at constant prices in the national accounts publications.

The following aggregates, though appear in the transaction accounts, are excluded:

1. Taxes on income & wealth payable (D.5)
2. Social contributions & other social benefits payable (D.6)
3. Adjustments for hhds' pension funds (D.8)
4. Acquisition less disposal of valuables (P.53)
5. Acquisition less disposal of non-produced non-financial assets (K.2)

Two main reasons for their exclusion for items 1, 2, 3 and 5 are

(i) They are not decomposable; and

(ii) The 'uses' and 'resources' side values should cancel each other, but for RoW transactions, which is normally a relatively small amount. Thus, are not expected to have significant effect on the estimate of main aggregates.

At present, item 4 is not estimated at current price in Iraq.

Two Important Identities

At constant prices, direct measurement of GDP can be obtained only from the output and expenditure sides. Following the <u>production or output approach</u>,

GDP at market prices ≡ Output at basic prices - intermediate consumption at purchasers' prices + (taxes – subsidies) on products.

Following the <u>expenditure approach</u>,

GDP at market prices ≡ Final consumption expenditure by households
+ final consumption expenditure by government
+ final consumption expenditure by NPISH
+ gross fixed capital formation
+ changes in inventories
+ acquisitions less disposals of valuables
+ exports of goods and services
-/- imports of goods and services.