

CHAPTER 1

CONCEPTS AND DEFINITIONS

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1. General

National accounting represents a system of accounts, which describes the functioning of the national economy in such areas as production, distribution, consumption and accumulation. It has been developed to facilitate the practical application of economic theory. National accounting therefore furnishes a unified system for studying the economic condition of a country and its changes over time.

1.1 The System of National Accounts (SNA)

A System of National Accounts (SNA) consists of a coherent, consistent and integrated set of macro-economic accounts based on internationally agreed concepts, definitions, classifications and accounting rules. The United Nations Statistical Office in 1953 produced the first publication "A System of National Accounts (SNA)", which was revised in 1968. Since then, the SNA has undergone an extensive revision in the light of country experiences during the twenty-five years. The new version, the 1993 SNA was published in 1993 and countries have been advised to implement the new system as soon as possible. Whilst the basic structure has remained more or less the same, certain changes have been brought in, to take account of new developments and concerns.

1.1.1 Implementation of the 1993 System of National Accounts (1993 SNA)

Mauritius started the compilation of national accounts based on the 1993 SNA in 2001. As from April 2001, the national accounts data are produced according to the new concepts and definitions. Historical series as from the year 1990 have been reworked according to the 1993 SNA and are given in Chapter 3.

In addition to the change in the system of accounting, the office has also adopted the latest revision of industrial classification, that is, the International Standard Industrial Classification of Economic Activities ISIC, Revision 3 of 1990, for the classification of economic activities. As from April 2001, economic activities are classified according to NSIC which is an adapted version of ISIC Rev 3. National Standard Industrial Classification is an adapted version of ISIC. This change in classification will affect the value added of some industry groups but does not affect the overall Gross Domestic Product (GDP).

Some of the main changes in terminology, valuation and classification that are relevant to Mauritius are given at paragraph 4.

1.2 National Accounts of Mauritius - historical background

The first estimates of national income and expenditure date back to the year 1948 when (GDP) stood at some R 300 million. The measures were then confined to 'Value Added' figures only and were published in the Year Book and later, in the Digest of Statistics.

Estimates for 1948 to 1975 were based on the 1953 System of National Accounts. In 1983, following the availability of more detailed data which were collected through an Annual Census of Production, a new series was produced for the years 1976 onwards, based on the 1968 SNA. In April 2001, the Central Statistics Office adopted the 1993 SNA, following the availability of updated and more detailed data from the 1997 Census of Economic Activities. Data series worked according to the 1993 SNA are available for the years 1990 onwards. In June 2005, the series have been revised based on the results of the 2002 Census of Economic Activities.

As from 2005, Quarterly National Accounts (QNA) estimates starting from the first quarter of 1999 are compiled and published by the Central Statistics Office. These quarterly figures provide information needed for monitoring short term economic development. The publication of quarterly data is also one of the requirements for the country to graduate to the Special Data Dissemination Standard (SDDS) of the International Monetary Fund (IMF).

The quarterly estimates are compiled according to guidelines provided in the IMF manual entitled "Quarterly National Accounts Manual – Concepts, Data Sources and Compilation", which is itself based on the 1993 SNA.

1.3 Main changes between 1968 SNA and 1993 SNA.

1.3.1 Terminology

(i) Taxes on production and imports replaces 'Indirect taxes'. 1993 SNA argues that it is extremely difficult, if not impossible, to determine the real incidence of different kinds of taxes, and that the use of the terms 'direct' and 'indirect' taxes has fallen out of favour in economic theory. Taxes on production and imports comprise all taxes that enterprises incur by engaging in production.

(ii) Taxes on products and Other taxes on production replaces 'Commodity taxes' and 'Other indirect taxes' respectively and are explained as follows:

Taxes on products are payable on good and services when they are produced, sold or used. Examples are excise duties, import duties and Value Added Taxes (VAT).

Other taxes on production are taxes payable out of the value added of producers. This category of taxes includes taxes levied on property, fixed assets and labour employed. Examples are municipal rates, motor vehicle licences and business licences.

(iii) Change in inventories replaces 'Changes in stocks'.

(iv) Financial Intermediation Services Indirectly Measured (FISIM) replaces 'Imputed bank Service Charges'. The argument is that the service charges exist and that they are not really imputed, but it is not possible to measure them through direct observation.

(v) Primary incomes replaces 'Factor incomes'. Primary incomes are payable out of the value added created by production. They include compensation of employees, property income (interest, dividends, etc.) and taxes on production and imports net of subsidies. The concept of 'factor incomes', comprising the first two categories of primary incomes, is no longer used in 1993 SNA.

(vi) Gross National Income (GNI) replaces 'Gross National Product (GNP)'. The rationale behind the change is that this aggregate is a concept of income rather than a concept of production.

1.3.2 Changes in the valuation of output

Under the 1968 SNA, GDP was estimated at factor cost. It is that part of the cost of producing the GDP, which consists of gross payments to factors of production (labour, land and capital). This valuation had some limitations in the sense that value added at factor cost is essentially a measure of income and not of output. 1993 SNA changes the concept from factor cost to basic prices, which is a better measure of output. 1993 SNA recommends that output be valued at *basic prices*. The basic price is the amount receivable by the producer exclusive of any taxes on products and inclusive of any subsidies on products.

Definitions of the different type of prices and the inter relationship between them:

(i) Basic price

The basic price is the amount receivable by the producer exclusive of taxes payable on products and inclusive of subsidies receivable on products. The equivalent for imported products is the c.i.f (cost, insurance and freight) value, that is, the value at the border of the importing country.

(ii) Purchaser's price

The purchaser's price is the amount payable by the purchaser. This includes trade margins realised by wholesalers and retailers (by definition, their output) as well as transport margins (that is, any transport charges paid separately by the purchaser) and non-deductible VAT.

1.3.3 Changes in the methods of estimation

(i) Annual growth rates

The growth rate of GDP worked out so far was calculated using a Fixed Base Laspeyres Index (fixed weight). It was observed that this index could not adapt to change in the structure of the economy. One of the recommendations of 1993 SNA is to use a Chain Index, which is equivalent to using the previous year's structure for calculation of growth rates.

(ii) Output of the General Government

Output of General Government is estimated as the sum of production costs, which include mainly salaries paid to staff. Another important cost is the consumption of fixed capital, which was previously not included because of lack of data. For this new series, consumption of fixed capital has been estimated and is included in the value added of General Government.

(iii) Output of the Central Bank

Under 1968 SNA, the output of the Central Bank was calculated by the income approach, which included salaries and profit of the bank. However, it was observed that the profit declared or transferred varied considerably from year to year and growth rate of the banking sector fluctuated a lot and did not show clearly the growth of that sector. It has therefore been recommended that the output of the Central Bank be measured as the sum of production costs, which include salaries paid to staff and consumption of fixed capital, in line with the recommendations of the Inter-Secretariat Working Group on National Accounts (ISWGNA).

1.4 Changes in classification by industry group

The most important change brought in by adopting NSIC Rev. 3, is the classification of activities pertaining to the General Government sector to their respective activity groups. When NSIC Rev. 2 was adopted, most of the activities of the General Government sector were classified under the heading 'Producer's of government services', although no such class existed in the International Standard Industrial Classification. This procedure was adopted by many countries, including Mauritius, because of data constraints.

The new NSIC Rev. 3 has been developed to enable the collection of data on sectors (e.g education, health etc.) which, according to analysts and policy makers, are becoming more and more important. Thus establishments previously grouped under 'Producers of government services', are now reclassified in the relevant industry groups according to their activities. As an example, in the new classification, government institutions involved in education activities are grouped under the heading 'Education'.

The main changes by industry group are given below:

- (i) Agriculture, hunting, forestry and fishing: Include part of expenditure of the Ministry of Agriculture, previously classified under "Producers of Government Services".
- (ii) Mining and quarrying: No change.
- (iii) Manufacturing: Electricity produced by sugar factories as by-products are still included in sugar milling, while electricity produced by the Independent Power Producers (IPPs) of the sugar industry is excluded and shown under "Electricity, gas and water".
- (iv) Electricity, gas and water supply: Include electricity produced by the Independent Power Producers (IPPs)
- (v) Construction: Construction works carried out by the "Public works committee" of the Local Government is now transferred to "Public administration and defence; compulsory social security".

- (vi) Wholesale & retail trade; repair of motor vehicles, motorcycles, personal and household goods: Repair of motor vehicles, motor cycles and of personal and household goods previously under “Community, social and personal services” is now classified here.
- (vii) Hotels and Restaurants: Formerly included in “Wholesale, retail trade, restaurants and hotels”.
- (viii) Transport, storage and communications: No change
- (ix) Financial intermediation: Activities of financial intermediaries and insurance companies, formerly classified under ‘Financing, insurance, real estate and business activities’ are now classified here.
- (x) Real estate, renting and business activities: These activities previously classified under ‘Financing, insurance, real estate and business activities’ are now classified here. This sector, also includes activities of the Central Information System Division, which was previously recorded in ‘Public administration and defence; compulsory social security’.
- (xi) Public administration and defence; compulsory social security: This class includes a variety of government *administrative* activities, including administration of government providing social security programmes. These activities were formerly recorded under the heading ‘Producers of government services’.
- (xii) Education: This category includes public as well as private education provided by institutions. Activities of private institutions were previously recorded under ‘Community, social and personal services’ and those of public institutions under ‘Producers of government services’.
- (xiii) Health and social work: This activity group comprises health activities provided by both public and private institutions. Activities of private institutions providing health services were formerly recorded under ‘Community, social and personal services’ while those provided by public institutions, under ‘Producers of government services’. This group also includes activities that are directed to provide a variety of social assistance, counseling and welfare.
- (xiv) Other community, social and personal service activities and private households with employed persons: This class includes other service activities which cannot be classified in the above categories. It includes activities of professional organisations, trade unions, religious and political organisations, as well as recreational, cultural and sporting activities and other services such as hairdressing, laundering and funeral activities. These activities were previously classified under “Community, social and personal services”.
- (xv) Financial intermediation services indirectly measured (FISIM): FISIM replaces ‘imputed bank service charges’ and is measured in the same way as in the 1968 SNA, that is, the total property income receivable (e.g. interest) less their total interest payable, excluding the value of any property income from their own funds.

The 1993 SNA recommends that the consumption of these services be allocated among users. However, because of practical difficulties of allocating FISIM among the different users, FISIM is recorded as intermediate consumption of a nominal industry.

1.5 Data collection, compilation and publication

Benchmark data for the compilation of National Accounts statistics are collected through the Census of Economic Activities which is conducted at five year intervals. Annual data are collected through sample surveys of establishments. In addition, many organisations, both public and private, are regularly contacted for obtaining the latest available information on the key sectors of the economy. Data are collected under the authority of the Statistics Act 2000 which also lays great emphasis on the confidentiality aspect.

The presentation of the tables broadly follows the recommendations of the United Nations 1993 System of National Accounts (SNA). A brief description of the methodology used for the preparation of the Accounts is given in Chapter 2 of this report for Annual National Accounts (ANA) and in Chapter 4 for Quarterly National Accounts (QNA).

National Accounts data are disseminated via an annual report entitled “The National Accounts of Mauritius” and in “Economic and Social Indicators”. All these publications are published by the Central

Statistics Office and are posted on the website of the office (<http://statsmauritus.gov.mu>).

Economic and Social Indicators on annual national accounts used to be published twice a year, in April and October. As from 2003, following requests for more frequent updates, they are published four times during the year namely in January, April, July and October. The issue published in April now provides a first forecast of National Accounts aggregates for the current year together with revised figures for earlier years. Subsequent issues in the course of the year provide for figures updated in the light of latest information available.

Economic and Social Indicators on quarterly national accounts are published about three and a half months after the end of a quarter. To meet this target, estimates for the current quarter are based on selected indicators that capture quarterly movements. Administrative data that are available on a monthly or quarterly basis, the most important one being data from the Value Added Tax (VAT) system which have the advantage of being timely and of having a wide coverage are also extensively used. Some surveys requesting quarterly income and expenditure data have also been conducted among enterprises which are large contributors in specific sectors.

Estimates for a quarter are revised at subsequent quarters when new and more accurate information become available, to improve their accuracy. It is to be noted that quarterly estimates are sometimes subject to important revisions because of the limitations in the source data.

For consistency, the estimates for the four quarters of a given calendar year are benchmarked with the latest annual estimates which are more accurate as they are mostly compiled from income and expenditure data of enterprises obtained through surveys. In incorporating the more accurate annual information into the quarterly estimates, the accuracy of the quarterly data is enhanced while the quarterly pattern inherent in the QNA is preserved.

1.6 The Report

This report contains the latest available Annual National Accounts data relating to the years 2004 to 2007 and Quarterly National Accounts for the years 2004 to 2007. Explanatory notes on the concepts, definitions are given in Chapter 1. The various methods used for the computation of the estimates together with the statistical tables for Annual National Accounts and Quarterly National Accounts, are given in Chapter 2 and Chapter 4 respectively. The statistical tables are preceded by a brief analysis.

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1.7 Supply and Use Table (SUT)

It has been possible, by making use of benchmark data available from the 2002 Census of Economic Activities and other sources, to construct a Supply and Use Table (SUT) for the year 2002. The SUT brings together the detailed goods and services accounts in the format of matrices with the product groups in the rows and the different categories and components of supply and use in the columns. In this matrix, commodity flow of goods and services are traced from different sources of supply to different categories of use. This table is an important analytical tool to study economic repercussions.

1.8 Input/Output Table (I/O)

The Input/Output (I/O) Table gives the picture of input composition and output distribution of each product. On the assumption of stable or linear technical correlation between input and output, the table serves as an effective analytical tool for the study of economic repercussion. For instance, it illustrates the ultimate effect (direct and indirect) of a unit increase in domestic demand for a certain good on product output or value added.

1.9 Problems and limitations of published data

The main problems of the office in obtaining relevant data can be grouped as follows:

(i) *Response rate to enquiries*

The response rate to our annual enquiries is one of the major problems encountered by the office. It appears that the fear that the Central Statistics Office discloses information to other authorities still prevails among some suppliers of data. Data are collected under the authority of the Statistics Act 2000 which guarantees the absolute confidentiality of all information. No information relating to costs of production, capital employed or profits of an individual enterprise can be revealed to any authority or person.

(ii) *Non-uniformity of accounting years*

All firms do not have uniform accounting years. Data referring to the last "twelve-months" period may in fact spread over two or three consecutive years. Only in some cases, have data been adjusted before incorporation in the National Accounts. The time reference of the accounts is the calendar year.

The varying accounting years are also major obstacles to the preparation of the Capital, Finance and Balance Sheet Accounts.

2. Definition of main aggregates

The concepts and definitions used in this publication are those stated in the United Nations System of National Accounts (SNA) Manual - A System of National Accounts 1993.

(i) *Taxes on production and imports*

Taxes on production and imports comprise all taxes that enterprises incur by engaging in production. There are two categories of taxes, namely taxes on products and other taxes on production.

Taxes on products are payable on goods and services when they are produced, sold or used. Examples are excise duties, import duties and Value Added Taxes (VAT).

Other taxes on production are taxes payable out of the value added of producers. This category of taxes includes taxes levied on property, fixed assets and labour employed. Examples are municipal rates, motor vehicle licenses and business licenses.

(ii) *Gross output*

Gross output of industries covers the value in the market of goods and services produced, including work in progress and products for own use. Valuation is usually at basic prices. The imputed rent of owner-occupied dwellings is also included.

The basic price is the amount receivable by the producer exclusive of taxes on products and inclusive of subsidies on products. The equivalent of imported products is the c.i.f. value at the border of the importing country.

Gross output for "general government" and for "non-profit institutions serving households" are computed as the sum of the cost of intermediate consumption expenditure, compensation of employees and consumption of fixed capital.

(iii) Intermediate consumption

"Intermediate consumption of industries" covers non-durable goods and services used up in production and includes repairs and maintenance of the capital stock and is valued at purchasers' prices.

The purchasers' price is the amount payable by the purchaser exclusive of deductible taxes on products (e.g deductible value added tax).

"Intermediate consumption of general government" is made up of acquisitions (purchases and transfers in kind) of new goods and services on current accounts.

(iv) Value added

The value added is equal to the gross output at basic prices less the value of intermediate consumption at purchasers' prices.

(v) Gross Domestic Product (GDP)

The sum of value added of all domestic producers gives the Gross Domestic Product (GDP). It represents the aggregate money value of all goods and services produced within a country out of economic activity during a specified period usually a year, before provision for the consumption of fixed capital.

(vi) GDP at basic prices

GDP at basic prices is obtained as the difference between output and intermediate consumption whereby output is valued at basic prices and intermediate consumption at purchasers' prices.

(vii) GDP at market prices

GDP at market prices is equal to the GDP at basic prices plus taxes (net of subsidies) on products.

(viii) Gross National Income (GNI)

GDP plus net primary income from the rest of the world gives Gross National Income (GNI).

(ix) Gross National Disposable Income (GNDI)

The sum of Gross National Income (GNI) and net transfers from the rest of the world gives Gross National Disposable Income (GNDI).

(x) Gross Domestic Fixed Capital Formation (GDFCF)

Gross Domestic Fixed Capital Formation (GDFCF) consists of the net additions to the assets of producers of tangible reproducible goods which have an expected lifetime of use of more than one year. These assets are buildings, plants, machinery and transport equipment. The additions are valued at purchasers' prices. Non-reproducible tangible assets such as land and mineral deposits are not included in gross capital formation. However, outlays on improvement of land and development of mining sites are considered as gross domestic fixed capital formation.

Durable goods purchased by households, with the exception of dwellings, are not classified as capital formation but are treated as consumption expenditure.

(xi) Change in inventories

Change in inventories includes the value of the physical change in inventories of raw materials, work in progress and finished goods held by producers.

(xii) Final Consumption expenditure

Consumption expenditure is made up of final consumption expenditure of households and of government.

Government final consumption expenditure is further disaggregated into collective and individual consumption expenditure. **Collective** expenditure consists of the services which government provides to the community as a whole, for example, security and defence whereas **individual** expenditure is made up of expenses incurred in providing services which are mostly beneficial to individuals, mainly in respect of health and education.

Actual Government final consumption expenditure refers to expenditure incurred for the provision of collective services.

Final consumption expenditure incurred by households comprises the value of goods and services purchased by households including the value of imputed rent of owner occupied dwellings. For a better measure of standard of living, actual private final consumption expenditure is used.

Actual private final consumption expenditure covers goods and services supplied to households, irrespective of whether these goods and services are actually paid by government or households themselves. Consequently, it consists of expenditure incurred by households and government on the provision of individual services.

(xiii) Gross National Saving

Gross National Disposable Income (GNDI) less total final consumption expenditure gives Gross National Saving.

(xiv) Exports and Imports of goods and services

Both exports and imports are measured on an f.o.b. basis.

Exports and imports of goods are compiled according to the General Trade System, using the national boundary as the statistical frontier. All goods entering the country are recorded in imports and goods leaving the country, in exports. However, for the sake of continuity and consistency gross imports and exports through the customs and the free zone area are shown separately.

(xv) Compensation of employees

Compensation of employees comprises all payments of wages and salaries by producers to their employees. Payments in kind and contributions to social security and to private pension fund, casualty insurance and similar schemes are also included.

Wages and salaries in cash comprise all payments which employees receive in respect of their work, before deductions of employees' contributions to social security schemes. Payments such as refund of traveling of work, commissions, overtime, bonuses, and cost of living allowances are also included.

Payments in kind include goods and services provided to employees free of charge or at markedly reduced costs which are clearly of direct benefit to the employees as consumers.

(xvi) Gross operating surplus

Gross operating surplus is defined as the excess of value added over the cost of employees' compensation and other taxes on production and imports net of subsidies.

(xvii) Financial intermediation services indirectly measured (FISIM)

FISIM is the difference between interest received and interest paid by banks excluding those received on own funds. As it is difficult to allocate FISIM to the intermediate consumption of different industries, the total value of FISIM is imputed to a nominal industry with a negative value added.

(xviii) Goods-producing industries

Goods-producing industries comprise "Agriculture, hunting, forestry and fishing", "Mining and quarrying", "Manufacturing", "Electricity, gas and water supply" and, "Construction".

(xix) Service industries

Service industries include "Wholesale and retail trade; repair of motor vehicles, motorcycles, personal and household goods", "Hotels and restaurants", "Transport, storage, communications", "Financial intermediation", "Real estate, renting and business services", "Public administration and defence; compulsory social security", "Education", "Health and social work", "Other community, social and personal service activities and private households with employed persons".