

# Guidebook on the Use of Administrative Data in National Accounts



United Nations  
Economic Commission for Africa



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## Abbreviations

ACS	African Centre for Statistics
AfDB	African Development Bank
AFRISTAT	Economic and Statistical Observatory for Sub-Saharan Africa
ANSD	National Agency of Statistics and Demography (Senegal)
AUC	The Commission of the African Union
BCEAO	National Directorate of the Central Bank of the States of West Africa
BCG	Budgetary central government (Mauritius)
BoP	Balance of payments
BPM	Balance of payments manual
CFC	Consumption of fixed capital
CIF	Cost, insurance and freight
COFOG	Classification of the Functions of Government
CoA	Chart of accounts (Mauritius)
COICOP	Classification of Individual Consumption According to Purpose
CPI	Consumer price index
DSF	Statistics and tax returns (Burkina Faso)
ECASEB	Central African Survey for Monitoring and Evaluation of Welfare
ENE	Estimates of National Expenditure
ERF	Expenditure Reporting Format
ESCAP	Economic and Social Commissions for Asia and the Pacific
FCF	Fixed capital formation
FISIM	Financial intermediation services indirectly measured
FOB	Free on board
FP	Focal points
GAAP	Generally Accepted Accounting Principles
GABS	Government Account and Budgeting System (Botswana)
GCF	Gross capital formation
GDP	Gross domestic product
GG	General government
GNI	Gross national income
GST	Goods and services tax
GFCE	government final consumption expenditure
GFCF	Gross fixed capital formation
GFS	Government Finance Statistics
GFSM	Government Finance Statistics Manual
HFCE	Household final consumption expenditure
IC	Intermediate consumption
IFMS	Integrated Financial Management System
ILC	International Labour Conference
ILFS	Integrated labour force survey (Tanzania)
IMF	International Monetary Fund

INSD	National Statistics Institute of Burkina Faso
INSS	National Institute of Social Security (Burundi)
IPSAS	International Public Sector Accounting Standards
ISIC	International Standard Industrial Classification
MFDB	Ministry of Finance and Development Planning (Botswana)
MFP	Mutual of Public Service (Burundi)
MoF	Ministry of Finance
MOFED	Ministry of Finance and Economic Development
MoU	Memorandum of understanding
MU	Monetary units
NACE	The Statistical classification of economic activities in the European Community
NBS	National Bureau of Statistics
NPI	Non-profit institution
NPISH	Non-profit institutions serving households sector
NSI	National Institute of Statistics (Mozambique)
NSIC	National Standard Industrial Classification (Mauritius)
NSO	National Statistical Office
OECD	Organisation for the Economic Cooperation and Development
ONPR	National Board of Pension and Annuity (Burundi)
PIM	Perpetual inventory method
ROW	Rest of the world
RRA	Rodrigues Regional Assembly (Mauritius)
SARB	South Africa Reserve Bank
SCOA	Standard Chart of Accounts (South Africa)
SFOT	State Finance Operations Tables (Niger)
SNA	System of national accounts
SRC	Seychelles Revenue Commission
StatsSA	Statistics South Africa
SUB	Supply use balance
UEMOA	West African Monetary and Economic Union
UN	United Nations
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
VAT	Value added tax
WB	World Bank

## **Chapter 1. Introduction**

This chapter provides a brief description of the objectives, scope and contents of the guidebook and discusses the advantages in using administrative data in the compilation of national accounts. The chapter also touches upon the sources of data that are normally used in the compilation of national accounts, of which the administrative data is considered to be the most important and cost effective.

### **1.1. Objectives and scope of the guidebook**

The main objective behind the preparation of this guidebook has been to bring together African country experiences and practices on use of administrative data in the compilation of national accounts. These country experiences and best practices are expected to provide guidance to the national accountants in Africa in transforming the information contained in the administrative data to national accounts in their countries.

Administrative statistics cover a vast range of areas and their availability, accessibility, contents, quality, periodicity and timeliness vary largely among the countries, especially so in the African countries. This guidebook, therefore, aims to include only the main types of administrative data such as the financial accounts and statements of government, non-financial corporations, financial corporations (central bank, commercial banks, life insurance and non-life insurance companies), tax data, customs records and balance of payments (BoPs) statistics. Though BoPs statistics is also regarded as a statistical compilation and not an administrative data just as is the case with national accounts statistics, this has been included in the guidebook since BoPs statistics constitute the main source for preparing rest of the world (ROW) accounts in national accounts and is also used in preparing several national accounts aggregates.

Besides putting together African country experiences in using administrative data in national accounts, the guidebook includes the standards and guidelines prescribed in the 1993/2008 System of National Accounts (SNA) and several handbooks on national accounting brought out by international agencies. Therefore, this Guidebook draws heavily material from the 1993/2008 SNA and the Handbooks.

### **1.2. Need for the guidebook**

The need for this guidebook was felt as data from administrative sources is generally available, cost effective and can be efficiently used to improve the national accounts and implement 2008 SNA. In fact, administrative sources constitute a key component in national accounts compilation in most countries. In the context of African countries, availability of administrative data is relatively better than that from censuses and surveys. Several countries in the continent do not have a regular system of conducting censuses and surveys that provide information for compiling national accounts. Therefore, if statistical offices manage to access administrative data from the concerned administrative functionaries in their countries, the guidebook will further support the national accountants in translating these data to national accounts.

Currently, there is no single handbook from the international agencies that covers all major administrative statistics and their use in national accounts. There are, however, handbooks and manuals focusing on specific sectors. This guidebook is expected to fill this gap for the African countries. Further, African country practices on national accounts differ from country to country

in using administrative statistics. For example, most countries use government accounts, but fewer countries have been able to use the accounts of corporations in the compilation of national accounts. There are some countries which use tax data extensively in the national accounts. This guidebook is, therefore, also intended to present at one place the best African country practices in each of the major types of administrative statistics.

### **1.3. Data sources for compiling national accounts**

The national accounts statistics are compiled from a large number of data sources that include censuses and surveys; administrative statistics; records held by businesses or industry associations; and, a large number of other *ad hoc* sources. These sources vary considerably among the developing countries mainly on account of the administrative structure, procedures and rules, internal priorities, availability of resources, and economic and political situation prevailing in those countries. The SNA provides a framework for integrating these different sources to compile a set of harmonized and consistent national accounts. Therefore, reliability of national accounts depends largely on the quality and coverage of source data.

Among these data sources, censuses and surveys are normally conducted by statistical offices and also generally take into account the national accounts data needs to some extent. While censuses are conducted infrequently, surveys are expected to be conducted regularly and cover the whole economy and also meet the timeliness and periodicity criteria of national accounts compilations. However, this is not the real situation in most developing countries.

Conducting censuses (such as the economic census, agriculture and livestock census, and population census) is costly and time-consuming, periodicity ranges from 5 to 10 years and results are available with considerable time-lag. Therefore, information coming from the censuses is mostly used as a frame for conducting surveys and sometimes used for benchmarking national accounts depending on the type of data gathered in these censuses.

The surveys and other datasets that feed into national accounts are mainly the labour force, household budget, investment, agricultural, enterprise/establishment (mining, industry and services), construction, informal/household sector, and surveys on external sector transactions. Just as in the case of censuses but to a lesser extent, conducting surveys is costly and there is a long gestation period between the planning of a survey and the availability of micro-data or results. Therefore, it is a common practice in most developing countries that economic surveys, such as establishment surveys, household income expenditure surveys and labour force surveys, are conducted less frequently and their results actually get used for benchmarking national accounts, rather than for the annual or quarterly national accounts. Only a few developing countries have comprehensive quarterly or annual surveys that provide the information required for compiling quarterly and annual national accounts. However, such surveys would be able to incorporate very few questions on economic situation since the data is needed to be collected, processed, compiled and disseminated quickly so that the results are available in time for use in the annual/quarterly national accounts.

The other most important data source for national accounts is the administrative data. These data are essentially collected by the administrative agencies in the countries as part of their administrative functions, or as legal or taxation requirements, or as part of regulatory functions, or for internal needs of policy making or sometimes the data gets generated as a by-product of administrative functions of these agencies. The 2013 ECA survey on the use of administrative

data sources in the compilation of the national accounts in Africa showed that administrative data sources are used far more often than statistical surveys by virtually all African countries.

## **1.4. Administrative data**

The United Nations Economic Commission for Europe (UNECE) handbook (2011), *Using Administrative and Secondary Sources for Official Statistics: A Handbook of Principles and Practices* defines administrative statistics as “administrative sources are data holdings containing information which is not primarily collected for statistical purposes”. According to the *OECD Glossary of Statistical Terms*, it is defined as “the administrative source is the register of units and data associated with an administrative regulation (or group of regulations), viewed as a source of statistical data”.

The administrative data covers a wide range of areas and differ considerably among countries. The list of administrative data can be very large, but the key datasets from the national accounts perspective are:

- accounts of government containing revenue and expenditure details;
- accounts of businesses (financial and non-financial companies);
- databases maintained and statistics compiled by central bank and accounts of central bank;
- income tax data;
- value added tax (VAT) data;
- customs statistics on imports and exports of goods;
- statistics compiled by industry associations, research institutions and other professional bodies;
- other administrative statistics such as the building permits, hotel occupancy, electricity sales, sales of manufactured goods (computers, consumer durables, etc.) indicators on postal and telecommunication, net tonne kilometers and passenger kilometres (road, water and air), cargo handled in ports, etc. ;
- social security records; and
- employment registers.

The UNECE handbook mentioned above elaborates the advantages and disadvantages in using administrative sources for official statistics. The handbook also discusses in detail the quality issues and common problems while using these sources and offers suggestions to overcome these problems.

### **1.4.1. Advantages of using administrative data**

The UNECE handbook devotes an entire chapter to describe the advantages of using administrative sources in official statistics, under 6 broad headings of *cost, response burden, frequency, coverage, timeliness, and public image*. The Eurostat handbook *Essential SNA: Building the basics*, summarises the advantages as:



- 1) *They are 'cheaper' than other sources and often even free.*
- 2) *They provide complete, or almost complete, coverage of the population to which the administrative process applies. Generally they have very high response rates, no survey errors, providing more accurate and detailed estimates of sub-populations.*
- 3) *The timeliness of the statistical variables derived from administrative sources is improved. This is particular the case for annual ad-hoc surveys, which are based on administrative sources via the business register (however this does not apply to short-term indicators).*
- 4) *They reduce the response burden on businesses.*
- 5) *They may increase business register quality, which are used for carrying out statistical surveys, thus improving their quality.*

Besides being available free of cost, regularly and timely, the main advantage of administrative statistics is their acceptability, since they are mostly collected under statutory provisions and, therefore, have a better public image and are considered to provide a true situation of the economy. For example, when the economy is at a revival stage in a particular year, it is reflected through the accounts of businesses in that year. On the other hand, surveys or benchmark-indicator procedures may not be able to pick up such short-term signals. This is because, administrative data captures new units coming into production much better than the surveys which often miss out such units due to insufficient updates of business registers or sampling frames. Indicators (such as production index) provided by panel surveys also normally miss out new units commencing production. Another advantage of using administrative sources is the availability of micro-data of administrative records electronically for the national accounts compilation, for example, the detailed government accounts of all levels of government and ministries/departments, showing revenues and expenditures by items. This reduces considerable computational workload on the part of national accountants, as they can prepare concordance or bridge tables and incorporate necessary adjustments in the original database itself and generate the sequence of accounts or national accounts aggregates directly.

#### **1.4.2. Disadvantages in using administrative sources**

Using administrative data in national accounts has its own disadvantages. The major weakness in administrative data is its susceptibility to administrative changes and introduction of new regulations. For example, changes made in taxation or insurance policies may result in reporting bias. Units exempted from licensing requirements may stop submitting returns. Similarly, units producing items exempted from taxation may not report production data to tax authorities. In such cases, administrative data over the years may become incomparable.

The Eurostat handbook lists some of the disadvantages in using administrative data as follows:

- 1) *The most important problem for a statistical office, and implicitly for national accountants, is obtaining access to administrative sources. This may be because there is no legal framework in place between the statistical office and the authority gathering the data. Sometimes, it may respond to practical issues relating to data transfer (formats, details, responsibilities, ways of collection, etc.). This problem can be easily avoided if agreements and memoranda of understanding (clearly establishing frequency, data format and any relevant information for data transfer) are signed between the statistical office and the administrative authority.*



- 2) *The information used in administrative sources does not directly correspond to the statistical indicator definitions.*
- 3) *The classification systems used within administrative sources may be different from those used in the statistical world, or may be applied differently, depending on the purpose of the administrative source. Where possible, it is preferable to rely on several administrative data sources.*
- 4) *Another common problem relates to timeliness. Data may either not be available in time to meet statistical needs or may refer to a period that does not coincide with that required for statistical purposes, e.g. a tax year may not coincide with the calendar year required for structural business statistics. In many countries timeliness is particularly a problem with company accounts which are only finalized one or two years after the end of the period. Data on company taxes are also one or two years old in most cases.*
- 5) *Administrative sources are generally set up for the purpose of collecting taxes or monitoring government policies. For this reason, they are susceptible to political change. If a policy changes, administrative sources may be affected in terms of coverage, definitions, thresholds etc., or possibly even abolished completely.*

**Box 4.1: Seychelles – Use of administrative data in national accounts**

The actual benefit of using administrative data sources in national accounts is simply because of its accessibility. Administrative data are collected by the administrative agencies as part of their administrative functions, or as legal or taxation requirements. Thus, these administrative data which are generally available, are cost-effective and often better and free source, and do not require conducting any censuses and surveys. However, to facilitate the collection of these data from the administrative agencies, an agreement and memorandum of understanding (MoUs) need to be set up. MoUs formalize relationships between the National Bureau of Statistics (NBS) and other key partners in the National Statistical System (NSS) and also strengthen collaboration and data sharing. In addition, annual agency meetings with the heads are held to discuss the progress of data exchange covered in the MoUs as well as any on-going issues.

Apart from reducing cost, administrative data also saves time and has a larger coverage than surveys and with no survey errors to worry about. They provide more accurate and detailed estimates. Such an avenue is also recommended by the international standards and guidelines prescribed in the System of National Accounts 1993 and 2008.

In some cases, however, the main challenges faced in using administrative data are the reliability and/or consistency. The business register is not updated consistently and this can impact on the coverage and timeliness.

One example is the government policy decision to introduce a VAT system in January 2013. This replaced the goods and services tax (GST), which was being used as indicators for some activities. In fact, the VAT covers some additional activities that were not subjected to GST. So, in theory VAT data could be used as quarterly indicators for more activities. However, as the VAT system has only been in operation for just over one year now, it is not yet possible to ascertain if the data will be reliable enough to be used to derive quarterly GDP estimates. Another issue with the VAT is that it has set thresholds and businesses whose annual turnover fall beneath the prescribed threshold are not obliged to register and this can be viewed as a limitation as there are a significant number of these spread across various economic activities.

The kind of administrative data in Seychelles are tax data, e.g income tax and VAT, Balance of Payments (BoPs) statistics, Government Finance Statistics (GFS), Fiscal reports, Social Security records, Customs records (import and export of goods), employment registers, and annual and quarterly Financial Statements. These data are collected from different administrative sources. The most important of them is the Seychelles Revenue

Commission (SRC) which is officially authorized to collect taxes and which remains the Bureau's primary source of administrative data for economic statistics compilation.

The quarterly national accounts should be published within 12 weeks after the reference period and the annual national accounts within 11 months after reference period. Administrative data is collected via emails, through electronic downloads, and follow up by phone calls. For quarterly data NBS send emails two weeks after the end of the reference period; after additional two weeks a friendly/gentle reminder is sent and later (after another two weeks) based on phone discussion a final date of submission is agreed. Most of the time this process works; however, in few cases, due to the lack of data, imputation on estimates needs be done. The same process is applied for annual data. However the time lag is different due to different auditing schedules from establishments; the collection of data starts 6 months after the end of the reference period and follow up every 2 months.

NBS use existing templates or working files in MS Excel format, set up by an IMF consultant. The working files are user friendly and reduce considerable computation workload. The national accountants make sure that the files are well maintained and documentations are being prepared to guide new recruits. No bridging tables exist in national accounts for reconciliation of items. However, we do have templates to translate business accounts to national accounts and converting fiscal years to calendar years.

To conclude, for improving the use of administrative data sources, NBS must sensitize the respondents about the importance of collecting these data, and the importance of using internationally recommended classifications and best data collection and compilation practices, which will not only meet the Bureau's requirements but will also benefit their individual organizations. The focal person in each of these establishments must devise a calendar or an action plan to meet NSB deadlines for data submission.

*Source: Document provided by National Bureau of Statistics, Seychelles*

Since it is often found that the concepts and definitions of units and data items in the administrative data do not exactly correspond to the national accounts concepts, national accountants have to make necessary adjustments while translating these data to national accounts and this becomes a major exercise. Another problem that arises is while using administrative sources is when the data is in conflict with those of other available sources and surveys. For example, growth rates estimated from the accounts of businesses engaged in manufacturing may differ with those estimated from the production index or manufacturing surveys of statistical offices. Part of it, however, is attributable to concepts and definitions of units and products adopted in different sources, but the differences still need to be closely examined by the national accountants.

Despite these disadvantages, it is always preferable to use administrative data in the compilation of national accounts, in view of their overwhelming advantages.

## **1.5. Administrative statistics to national accounts**

Translating administrative data to national accounts requires good understanding of the scope, coverage, definitions, classifications and concepts of the source data being used. Normally, administrative agencies maintain or develop these databases principally for their own administrative requirements or as part of their regulatory functions and, may not directly meet the national accounts requirements. Therefore, sound understanding of the source data is essential on the part of national accountants in order to prepare necessary transition accounts and tables and make conceptual adjustments.

The 2008 SNA states, *Business accounts, tax returns and other administrative records are main sources of data for drawing up the national accounts. One should be aware; however, that none of these necessarily satisfies the valuation requirements of the SNA and that accordingly adjustments may have to be made. In particular, in the interest of prudence, business accounting often adopts valuations that are not appropriate for the national accounts. Similarly, valuations for tax purposes often serve objectives that differ from those of macroeconomic analysis. For example, the depreciation methods favoured in business accounting and those prescribed by tax authorities almost invariably deviate from the concept of consumption of fixed capital employed in the SNA.* (Para 3.140, 2008 SNA)

To a large extent, translation of administrative data to national accounts becomes easier if the administrative data (especially in the case of government and business accounts) follows certain national or international standards and classifications, as most international standards are largely harmonized with national accounting principles. In this case, it is easier to prepare bridge tables and incorporate standard adjustments to meet national accounts requirements, in the databases of administrative agencies. However, this is often not the case, as classifications and standards vary not only across the countries, but also even within the countries. For examples, the codes used for recording revenues and expenditures in government accounts may vary from one department to another department or from federal government to provincial governments or local authorities even within a country. Similarly, business accounting practices may vary from one company to another company. Some companies may present very detailed accounts while others may only present a few consolidated entries.

Therefore, it becomes essential for the national accountants to prepare ‘bridge tables’ or ‘intermediate tables’ for translating micro-data or consolidated data from administrative sources to national accounts. Bridge tables are particularly relevant while using accounts of government and corporations and balance of payments statistics. The Eurostat handbook suggests the following six phases for translating administrative data to national accounts.

- 1) *identification of administrative data sources;*
- 2) *analysis of content in respect of national accounting methodological requirements;*
- 3) *collection of data source indicators;*
- 4) *translation of each indicator from administrative data sources into national accounts concepts;*
- 5) *application of adjustments to meet national accounting requirements;*
- 6) *estimation of the national accounts indicators.*

For an efficient use of administrative data in national accounts, the national accounts compiling agencies should establish a mechanism of having a continuous dialogue (and if necessary by establishing memorandum of understandings) with the administrative source data agencies, with the purpose of:

- understanding the scope, coverage, concepts, definitions and quality of administrative data;
- sharing the administrative data, preferably the micro-data in electronic form;
- improving the timeliness and periodicity to match with national accounts releases;
- improving the content and quality of data in line with the recommended international standards, such as International Accounting Standards and International Financial Reporting Standards;

- giving a feedback to the source data agencies on how they have used the data in the national accounts and compiled the economic variables. By this measure, the source agencies will feel involved in the national accounts compilation and help in assessing the contribution of the activities under their jurisdiction to the national economy.

#### **Box 1.2: Senegal – Focal points**

Recognizing the importance of having reliable and timely information on macroeconomic aggregates, former President of the Republic of Senegal, Abdoulaye Wade, convened on November 9, 2010 a government seminar on the calculation of GDP. During the meeting, it was emphasised that availability and reliability of basic statistical information was necessary to improve the quality of GDP estimates. To this end, the Prime Minister gave instructions to various departments for the designation of focal points (FP) whose tasks include the collection and transmission of statistical information to National Agency of Statistics and Demography (ANSD).

These discussions resulted in the following actions by the ANSD:

- Organization of meetings and workshops with focal points to explain how the activities of their ministries are reflected in national accounts. These meetings highlighted the typical characteristics of certain sectors, such as tourism, which are not separately visible in the national accounts but can only be assessed by compiling satellite accounts;
- The focal points were provided with a questionnaire to make an inventory of statistical information that is available in their departments and that could be useful in the improvement of national accounts. This inventory highlighted the potential to improve the coverage of certain sectors by integrating statistical information available in the departments, such as rural water supply, inland fisheries, expenditure financed directly by donors, which are not recorded in the State budget;
- Holding two meetings with focal points during each period of "compiling national accounts." The first meeting focuses on the information received and pending information. In this meeting, reasons for abnormal figures in the source data are also discussed. The second meeting is devoted to the validation of national accounts.

Collaboration with focal points facilitated access to administrative data and promoted ownership of the results of national accounts by sector ministries.

*Source: Document provided by National Agency of Statistics and Demography of Senegal (contributed by Mamadou Ngalgou KANE, Chief of the Office of National Accounts)*

## **1.6. Handbooks and manuals from international agencies**

There are several handbooks and manuals that provide comprehensive guidance on use of administrative data in national accounts for specific sectors. Some of these are:

- 1) *UNECE Handbook of Using Administrative and Secondary Sources for Official Statistics: A Handbook of Principles and Practices, 2011*
- 2) *UN Handbook: Links Between Business Accounting and National Accounting, Studies in Methods, 2000*
- 3) *UN Handbook of National Accounting: Financial Production, Flows and Stocks in the System of National Accounts, 2013*
- 4) *Guide méthodologique pour l'élaboration des comptes nationaux dans les états membre d'Afristat, Afristat, Serie Méthodes No.4, 2001; Chapter II-III: 'Le comptes des*

*administrations publiques* ’; chapter II-IV: ‘ *Le commerce extérieur et la balance des paiements* ’; Chapters II-VII: ‘ *Le traitement des données d’entreprises* ’

- 5) *Eurostat handbook Essential SNA: Building the basics, 2013*
- 6) *European Commission, IMF, OECD, UN, World Bank System of National Accounts, 1993 and 2008*
- 7) *United Nations, European Central Bank: Handbook of National Accounting: Financial Production, Flows and Stocks in the System of National Accounts, 2014*
- 8) *UN Handbook of National Accounting National Accounts: A Practical Introduction: Studies in Methods, 2003*
- 9) *OECD, IMF, ILO, CIS Stat (2002) Measuring the Non-Observed Economy: A Handbook*
- 10) *IMF (2001): Government Finance Statistics Manual*
- 11) *IMF (2009): Balance of Payments and Investment Position, Sixth Edition;*
- 12) *United Nations (2010): International Merchandise Trade Statistics: Concepts and Definitions*
- 13) *IAS Plus: Summaries of IFRSs and IASs at <http://www.iasplus.com/standard/standard.htm>.*

The most important one among these on use of administrative data in national accounts is the *UN Handbook: Links Between Business Accounting and National Accounting, Studies in Methods, 2000*. This handbook deals with the subject exhaustively for the non-financial sector and includes country practices of Canada, USA, France, Netherlands, Malaysia and Latin American countries.

The *UN Handbook of National Accounting: Financial Production, Flows and Stocks in the System of National Accounts, 2014* deals with financial sector comprehensively and includes a number of examples on computing FISIM and compiling full set of sequence of accounts for the financial corporations sector.

Chapter 5 of Eurostat handbook *Essential SNA: Building the basics, 2013* covers major administrative statistics of government, financial and non-financial sector, and balance of payments and provides bridge tables between administrative data concerning these sectors and the national accounts transactions. This handbook provides guidance mainly on compiling output and value added estimates from the bridge tables.

The 1993/2008 SNA does not separately discuss the use of administrative data and their translation to national accounts, though it highlights the areas of differences between business accounting and economic accounting, in several chapters. However, 2008 SNA devotes an entire chapter 22 for general government and public sector. Further, 2008 SNA mentions in Chapter 1 that the accounting rules and procedures used in the SNA are based on those long used in business accounting. In Chapter 22, it mentions that national accounts for government units and public corporations are often derived directly from the micro-data in government financial accounting databases. As a result, compilers of statistics for the government units and public corporations usually draw more heavily on accounting information than the results of statistical enquiries. In Chapter 26, SNA provides a comparison between the international accounts and the SNA rest of the world accounts

Chapter 14 of the UN Handbook of National Accounting *National Accounts: A Practical Introduction: Studies in Methods Series F, No.85*, discusses the types of accounts available from the administrative sources and mentions the approaches and items that should be looked for in these sources while estimating output and value added.

### **1.7. Structure of the guidebook**

The guidebook is structured as follows:

Chapter 1: Introduction provides a brief description of objectives, scope and contents of the Guidebook and also discusses the advantages in using administrative data in the compilation of national accounts.

Chapters 2 to 5 deal with a range of administrative statistics and their translation to national accounts. These chapters also include box items containing a brief write-up on country practices in the use of administrative data. Chapter 2 is on government accounts, while chapters 3 and 4 deal with financial and non-financial corporations, respectively. Chapter 5 discusses the transition from balance of payments statistics to national accounts. Country experiences of using administrative data in national accounts are presented in Annex.



# Chapter 1. Use of government accounts for national accounts

This chapter describes the general structure of government accounts that includes revenue and expenditure details; and provides a concordance between the government accounts and national accounts classification of transactions. The text for this chapter has mainly been sourced from the following three documents:

- 1) *European Commission, IMF, OECD, UN, World Bank System of National Accounts, 1993 and 2008*
- 2) *IMF: Government Finance Statistics Manual 2014*
- 3) *Eurostat handbook Essential SNA: Building the basics, 2013*

The chapter also presents a simplified method of estimating CFC when countries are not able to compile the same according to perpetual inventory method (PIM) recommended in SNA due to absence of long-term data on fixed capital formation for general government.

## 2.1 Introduction

In the compilation of national accounts concerning general government sector, source data used is normally the government accounts (mainly available in the form of budget documents) and rarely from any other alternative sources such as censuses or surveys. Usually these data are available to the national accountants either in hard copies or in electronic form. In some countries, government accounts show item level revenues and expenditures in a very detailed manner and further for each ministry/department and again for different levels of government. The extent of detailed data available from government accounts determines the quality of national accounts for general government, as there are several borderline cases where items of expenditures or revenues can be classified under national accounts transactions one way or other. For example, some expenses can either be categorised under compensation of employees or intermediate consumption. Some types of fees and fines can be classified under different categories. Some expenditure under repairs and maintenance can either be of current or capital nature. There are also borderline cases between taxes and sales as also between subsidies and transfers. Therefore, availability of detailed item level data in the government accounts helps in correctly classifying<sup>1</sup> the revenues and expenditures of government against national accounts transactions.

African countries mostly use government accounts to compile national accounts for general government sector. The UNECA survey of December, 2013 on the sources and methods used to compile national accounts in the 54 African member countries (47 countries responded) showed that 43 countries have access to government accounts in some form. Of these, 40 countries have access to government accounts in electronic form - either for national government only (22 countries) or for both national and provincial levels (18 countries). Among these, 19 countries are compiling sequence of accounts for general government from production account to use of income accounts, and 11 countries are able to produce sequence of accounts up to financial account.

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<sup>1</sup> There can still be some difficult borderline cases which cannot easily be fitted into predetermined categories, in which case, the national accountants need to closely examine such items and classify them appropriately.

Concerning availability of details in the government accounts, the experience of African countries has been diverse. Most countries are able to distinguish major economic categories such as wages, transfers, and intermediate consumption from the source data. However, only about 60 per cent of countries are able to distinguish expenditures by COFOG or by kind of economic activity; in nine countries government accounts are not detailed enough to distinguish between current and capital expenditures; in 13 countries the accounts do not distinguish between different types of taxes and subsidies, or do not distinguish between taxes and receipts from sales; and in 17 countries the accounts cannot be used to identify subsidies, current transfers, and social benefits in kind.

Despite these limitations, government accounts constitute the single most important source for preparing national accounts for the general government sector in Africa. The micro-data available from government accounts helps in translating the government transactions to national accounts directly through preparation of bridge tables and application of required adjustments. A clear understanding of the underlying concepts, definitions, scope and coverage of details provided in government accounts and their linkages with national accounts is, therefore, essential on the part of national accountants. This is particularly important as there are several borderline cases where government revenues and expenditures could be treated differently in national accounts in the absence of detailed information, thus impacting the quality of estimates of output, value added, capital formation and savings of not only the general government sector but also of the overall economy.

## **2.2 Definition of government**

Governments are mainly engaged in redistributing income and wealth among various sections of the community through taxation, transfers and other revenue raising or welfare measures; and produce non-market<sup>2</sup> services that are either provided free or at economically insignificant prices to the population either collectively or individually. Government has been defined in the 2008 SNA and the 2014 GFSM as follows:

*According to the 2008 SNA, Government units are unique kinds of legal entities established by political processes that have legislative, judicial or executive authority over other institutional units within a given area. Viewed as institutional units, the principal functions of government are to assume responsibility for the provision of goods and services to the community or to individual households and to finance their provision out of taxation or other incomes; to redistribute income and wealth by means of transfers; and to engage in non-market production.* (2008 SNA, para 4.9)

The Government Finance Statistics Manual 2014 states “*The general government sector consists of resident institutional units that fulfil the functions of government as their primary activity. The function of government units, broadly described, is to implement public policy through the provision of primarily nonmarket services and the redistribution of income and wealth, with both activities supported mainly by compulsory levies on other sectors.*”(2014 GFSM, para 1.2)

Both the above definitions outline the principal characteristics of government units as:

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<sup>2</sup>Non-market output of government consists of goods and individual or collective services produced by its units that are supplied free, or at prices that are not economically significant, to other institutional units or the community as a whole.



- engaging in non-market production;
- providing goods and services to the community or to individual households;
- redistributing income and wealth by means of transfers; and
- financing their activities through taxation and/or other incomes.

## 2.3 Coverage of government

The general government sector includes legal entities which have legislative, judicial or executive authority over other institutional units. It covers the budgetary government units, extra-budgetary units, social security funds and non-profit institutions that are controlled by government units. The budgetary government units include the central government, state or provincial governments and local governments.

- Budgetary units
  - Central government that encompasses the fundamental activities of the executive, legislative and judiciary powers. The political authority of central government extends over the whole country.
    - Most of the ministries, departments, agencies, boards, commissions, judicial authorities, legislative bodies and other entities make up this central government unit.
    - Its revenues as well as its expenses are normally regulated and controlled by a Ministry of Finance, by means of a general budget approved by the Parliament.
  - State/provincial or local governments
    - The state or local government subsectors each have a budgetary state/local government component that includes the principal executive, legislative, and judicial powers for these levels of government. Often, these budgets also need approval by the legislatures/elected bodies.
- Extra-budgetary units
  - General government entities with individual budgets not fully covered by the general budget.
  - These entities operate under the authority or control of a central, state, or local government.
  - They may have their own revenue sources, which may be supplemented by grants (transfers) from the general budget or from other sources.
  - Even though their budgets may be subject to approval by the legislature, similar to that of budgetary accounts, they have discretion over the volume and composition of their spending.
  - They are non-market producers established to carry out specific government functions and are controlled by a government unit.

- Social security fund that is devoted to the operation of one or more social security schemes<sup>3</sup>. In macroeconomic statistics, a social security fund is recognized if it meets the criteria to be an institutional unit and if it:
  - is organized and managed separately from the other activities of government units;
  - holds its assets and liabilities separately from other government units; and
  - engages in financial transactions on its own account.
- NPIs that are non-market producers and controlled by a government. Controls could be in the form of appointing officers, financing and other contractual arrangements. The NPIs are normally included in the government units which control them.

**Box 1.1: Niger – Sources of data for General government sector accounts**

General government accounts are usually produced according to the nature of the following available data sources:

General budget of the state;  
 State Finance Operations Tables (SFOT);  
 National treasury;  
 State investment budget;  
 Local governments' accounting documents;  
 Documents from the national social security fund;  
 Documents from the national pension fund;  
 Accounting documents of administrative public institutions;  
 Documents of the non-profit institutions serving households (NPISHs).

These documents are provided in paper form, apart from the general budget that is provided by the Directorate General of Budget in both paper and electronic format. The budget has the advantage of giving more details about both the revenues and the expenses, while the SFOT is more exhaustive but less detailed than the budget. Therefore, the data is harmonised each year.

Regarding the delays in the transmission of data, even if it is easy to acquire the budget or the SFOT within reasonable deadline, this is not the case for the local governments and public institutions, where the non-response rate is fairly high – sometimes reaching 60%. Therefore, adjustments are made for these local authorities and institutions.

The coding of revenue and expense operations is similar to the working framework used in the ERETES module, which is in line with the 1993 SNA.

The administrative public institutions (called special accounts of the Treasury) are entities receiving transfers and subsidies from the state, but their accounts are not detailed in the budget. Their objectives are in the public interest and not profit-seeking, and consequently, they are treated as non-commercial entities with zero net operating income.

The detailed bridging tables show how the aggregates are transformed from public accounting to national accounting.

Particular cases:

<sup>3</sup>Social security schemes are social insurance schemes covering the community as a whole, or large sections of the community, and are imposed and controlled by government units. Social insurance schemes provide social protection and require formal participation by the beneficiaries, evidenced by the payment of contributions (actual or imputed).

Fixed capital consumption is calculated by a method consisting of a long series of gross fixed capital formation (GFCF) at current and constant prices) with their indexes, assuming average lifetime and low price variation and by deducing the arithmetic mean of GFCF.

Capital expenses are calculated according to a spreading method obtained based on a certain number of projects with known activities included in the document called “state investment budget”. This is partly about external aid (reimbursable and non-reimbursable aid) in line with the 1993 SNA. Also, this procedure includes for each different type of aid measures, the calculation of shares that finance investments, operating costs and human resource costs. Nevertheless, the management of the projects out of state-control (directly managed projects) complicates the accounting task of understanding the whole of external aid-related activities

## 2.4 Sources of data for general government sector

For the general government sector, the source data required for compiling statistics is usually available. These mainly comprise budget documents; and accounts of extra-budgetary units, social security funds and NPIs. The budget documents of central government are generally prepared by the Ministry of Finance (MoF). Accounts of other general government units are normally prepared by a designated administrative authority of these units.

The budget documents usually contain item-wise revenues and expenditures of government under major accounting heads, further disaggregated by ministries/departments and also sometimes by states/provinces and local governments if the country is centrally governed. In some countries, state/provincial governments and local governments may have their own set of budget documents submitted to their legislatures or an elected body, where the governance is decentralised. Similarly, in some countries, accounts of extra-budgetary units and NPIs controlled by government units may also need to be submitted to the Parliament/legislatures, depending on the legal and administrative arrangements and procedures in place in their countries or they may just need to submit their accounts to the concerned ministry/department/state/local government which administers these units.

These detailed governments accounts by ministries/departments within the central government and state/provincial governments and local governments constitute the micro-data for use in national accounts. Unless such detailed data by ministries and departments are available, it is difficult to correctly compile general government accounts and also its functions according to the Classification of Functions of Government (COFOG) and allocate general government activities to various industries. This is also essential for determining the collective and individual consumption of government services and in preparing supply and use tables.

From the national accounts point of view, irrespective of the type of accounting system followed by the countries, it is important to ensure that micro-data from all general government units are collected and there are no omissions. In some countries, local governments or some of the NPIs or extra-budgetary units may not be covered in the general government accounts due to lack of source data. This will result in under-coverage of general government sector in national accounts.

## 2.5 Structure of government accounts

The type and structure of government accounts vary across the countries, depending upon their political and administrative procedures and arrangements. Most countries normally have a consolidated government account in the form of Finance Account or Annual Financial Statement, which shows summary information on government revenues and expenditures across its accounting heads and sub-accounts. The accounting heads are generally categorised under revenue (further broken down by current and capital receipts), and expenditure (broken down by current and capital expenditure). Some countries may also have separate accounts for loans and advances, and public debt. There could be several other models of government accounts in the African countries. The sub-accounts could be the consolidated fund, charged fund<sup>4</sup>, development fund, etc. or country specific sub-accounts.

In a typical set of budget documents, information on budgeted amounts may be available for the current fiscal year and actuals for the previous fiscal year.

In addition to the *Finance Account* or *Annual Financial Statement* which is prepared normally by the Ministry of Finance, individual departments/ministries may also maintain their own accounts showing receipts and expenditures, with more detailed information on the types of receipts and expenses incurred by them. In some countries, these accounts are termed as *Demand for Grants* by individual ministries and are also needed to be approved by the Parliament or legislature before incurring expenditures. Expenditures of government are normally voted by the Parliament or legislatures and some expenditure could be ‘charged’, which means the expenses under this charge account are not required to be voted.

The detailed information available from the accounts of departments/ministries, and extra-budgetary units enables in correctly classifying government transactions according to SNA concepts and also enables in preparing general government expenditures according to COFOG and allocate them to appropriate industry groups and products<sup>5</sup>. Sometimes, details of expenditures may not be available for some sub-accounts. In such cases, efforts may have to be made to collect data on expenditures at least under some broad heads like salaries and wages, transfers, other current and capital expenditures. If it is not possible even to collect these details, the breakdowns available for similar accounts could be adopted. Another alternative is subjective judgments (after discussing with concerned authorities on the possible categories of expenditures under this sub-account) that may have to be made to break-up the total expenditures into national accounts categories.

The government accounts of most countries also follow certain standard accounting practices. Individual item/category level revenues and expenditures are classified according to a set of standard ledger codes, which sometimes can extend up to 15 digits<sup>6</sup> and these are unique across the ministries/departments of central government and state/provincial governments and local governments. In such cases, it is easy for national accountants to prepare concordance tables between the ledger codes and SNA transactions and generate national accounts aggregates and sequence of accounts, in a simplified manner, after incorporating suitable adjustments required to meet SNA concepts. However, in most countries these ledger codes may not be standardised

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<sup>4</sup>Charged fund shows expenditures which are charged and not voted by the Parliament or legislatures. These expenditures are generally towards constitutional positions such as judiciary and head of the nation.

<sup>5</sup>Product level information is useful while compiling the supply and use tables.

<sup>6</sup>Covering major head, minor head, detailed head, object code, etc.

across various levels of government. In which case, national accountants have to go through the detailed data on expenditures and revenues by items/categories and allocate them to appropriate SNA transactions on the basis of their descriptions, while preparing bridge tables. This is often a very lengthy process, but if the micro-data is available electronically, the process becomes easier.

One constraint with government accounts is non-availability of product-level details of expenditures, which is required in the compilation of supply and use tables. Usually, government accounts provide expenditures under broad categories, such as transportation, office expenses, etc., which cannot easily be mapped to products at detailed level. In such cases, the way out is to do a small survey of few government departments to collect expenditures disaggregated by products. The level of details of these products could be determined according to the product classification included in the country's supply and use tables.

Another feature of most government accounts is that they are normally recorded on cash basis. SNA requires the data to be compiled on an accrual basis. It is important to prepare national accounts for general government sector on accrual basis, as they have transactions outside government, for example, with the corporations and households, which follow accrual accounting. This results in inconsistency of the data across institutional sectors if one institutional sector follows cash accounting and others, the accrual accounting. For example, Governments may issue bonds to corporations to be redeemed in future, and may not show such expenditures in the current year in the government accounts. On the other hand, corporations may show the bonds as receivables in their accounts in the current year.

In this context, para 22.13 of 2008 SNA states, “*The development in recent years of International Public Sector Accounting Standards by the International Public Sector Accounting Standards Board of the International Federation of Accountants has increased the need for clear guidance on the compilation of government finance statistics so that the detailed accounting data can be transposed correctly into the framework of the SNA. Such guidance is especially important when the government financial accounts are compiled on a cash basis and must be converted to an accrual basis to comply with the accounting basis of the SNA*”.

## **2.6 Certain conceptual issues**

The following are some of the characteristic features specific to the general government (*extracts from 2008 SNA*).

- General government consists of institutional units that, in addition to fulfilling their political responsibilities and their role of economic regulation, produce services for individual or collective consumption mainly on a non-market basis and redistribute income and wealth.
- They consist mainly of central, state and local government units together with social security funds imposed and controlled by those units. In addition, it includes NPIs engaged in non-market production that are controlled by government units or social security funds.
- Social security schemes are run as part of the operation of general government. If separate units are distinguished, their output is determined in the same way as all non-market output as the sum of costs. If separate units are not distinguished, the output of social security is included with the output of the level of government at which it operates. It is possible to identify social security funds as separate units within the general government, if they so exist in the economy. They are separately organized from the other activities of government units, raise social security contributions and pay out benefits from/to the members of the

community and hold their assets and liabilities separately from the government units and engage in financial transactions on their own account.

- Central bank when it is a separate institutional unit, is always allocated to the financial corporations sector even if it is primarily a non-market producer and is treated as being controlled by government, and produces collective services. These collective services are, however, shown under government final consumption, as corporations do not have final consumption expenditure and their purchases on goods and services are only towards intermediate consumption or compensation in kind.
- Government accounting is usually on cash basis. The rules of consistency in the SNA require that efforts should be undertaken for correcting them to accrual basis.
- Within the general government accounts, current and capital transfers such as central government grants to lower levels of government are usually consolidated.

### 2.6.1. Production, output, value added (production account)

- Government undertakes production (on non-market basis), accumulation and final consumption on behalf of the population.
- The SNA includes within the production boundary all goods or services provided free to individual households or collectively to the community by government units.
- The non-market output produced by government units (including social security funds operated by government units) that is supplied free, or at prices that are not economically significant, to other institutional units or the community as a whole is valued by total production costs, including consumption of fixed capital<sup>7</sup>, plus other taxes (less other subsidies) on production.

Output of government =	Intermediate consumption + Compensation of employees + Consumption of fixed capital+ Other taxes on production (payable by the government units)
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- Basic prices exclude any taxes on products the producer receives from the purchaser and passes on to government but include any subsidies the producer receives from government and uses to lower the prices charged to purchasers.
- The value of market output of government is given by its receipts from sales of market products, the value of its non-market output is obtained residually as the difference between the values of its total output (estimated on non-market basis) and its market output.
- The net operating surplus for government units is zero<sup>8</sup>, by convention; no net return to capital is included for non-market production.
- Expenditures by government on goods or services produced by market producers that are provided directly to households, without any further processing, are not included in intermediate consumption (therefore, also non-market output). They constitute final consumption expenditures by government. Such goods and services in question are treated as social transfers in kind and enter into the actual consumption of households.

<sup>7</sup>Consumption of fixed capital is the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage.

<sup>8</sup>It is possible for some government units undertaking market production to have net operating surplus.



- In the production account, the resources side includes market and non-market output and on the use side, the intermediate consumption. The balancing item is gross value added. If consumption of fixed capital is excluded, the balancing item will be the net value added.
- The net value added of government equals compensation of employees, plus other taxes less subsidies on production, if any.

### **2.6.2. Distribution of income (generation of income account)**

- The resource side of this account has only one entry, the gross/net value added, which is the balancing item of the production account.
- The use side of generation of income account for government has only two entries – compensation of employees and consumption of fixed capital, besides other taxes and subsidies on production, if any.
- The balancing item of this account, gross operating surplus, is equal to consumption of fixed capital. Net operating surplus is zero.

### **2.6.3. Distribution of income (allocation of primary income account)**

- Resources in this account, apart from operating surplus<sup>9</sup>, are taxes on production and imports, subsidies (shown as negative) and property income.
- The uses are property income payable in the form of interest and rent. The balancing item is gross/net balance of primary incomes.
- Receipts from taxes on production and imports (less subsidies on production and imports) are treated as primary incomes of governments. These taxes on production and imports appear under resources only for the general government sector and the total economy, apart from any such taxes payable to foreign governments. Taxes on production and imports are referred to as indirect taxes in some countries.
- Taxes are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units. They are described as unrequited because the government provides nothing in return to the individual unit making the payment, although governments may use the funds raised in taxes to provide goods or services to other units, either individually or collectively, or to the community as a whole.
- Receipts on account of fees are treated as taxes, if it involves little or no work on the part of government or the fees charged is clearly out of all proportion to the costs of providing the services, they are treated as taxes. Otherwise, they are treated as purchases of services from government.

*Para 22.89, 2008 SNA*

*a. The payment is recorded as a tax when a licence or a permit is automatically granted by the government as a mandatory condition to perform an activity or acquire an asset and when the government unit performs little or no work other than a minimum control of the legal capacity of the acquirer to receive the permit (for instance, to confirm the applicant has not been convicted of a crime). The payment of the fee in such a case is not commensurate with the control function that the government exercises.*

<sup>9</sup>This can be expressed in gross or net terms; the difference between the two is consumption of fixed capital.

*b. The payment is recorded as the purchase of a service when, for instance, issuing the licence or permit implies a proper regulatory function of the government by exercising control on the activity, checking the competence or qualifications of the persons concerned, etc. In such a case, the payment is taken to be proportion to the costs of producing the service for all or any of the entities benefiting from the services and is borne by those benefiting. Only if the payment is out of proportion to the costs of producing the services, is it treated as a tax.*

- Payments by persons or households for licences to own or use vehicles, boats or aircraft and for licences for recreational hunting, shooting or fishing are treated as current taxes. Payments for all other kinds of licences (for example, driving or pilot's licences, television or radio licences, firearm licences, etc.) or fees to government (for example, payments for passports, airport fees, court fees, etc.) are treated as purchases of services rendered by governments.
- Leases granted by government units to other institutional units permitting them to extract mineral deposits over a specified period of time in return for the payment of rent, are treated as rent in SNA. Enterprises engaged in exploration may make payments to the owners of surface land in exchange for the right to make test drillings or investigate by other means the existence and location of subsoil resources. Such payments are also to be treated as rent even though no extraction is taking place.
- Subsidies are made to enterprises on the basis of the levels of their production activities or the quantities or values of the goods or services that they produce, sell or import. They are not paid to final consumers; current transfers that governments make directly to households as consumers are treated as social benefits. Subsidies also do not include grants that governments may make to enterprises. Subsidies have the same impact as negative taxes on production. While taxes have the effect of raising prices, subsidies have the effect to lower the prices.
- Primary incomes do not include current transfers, especially, payments of social contributions to social insurance schemes and the receipt of benefits from them, or the current taxes on income, wealth, etc.
- The balancing item of this account is the gross/net balance of primary income (national income for the overall economy).

#### **2.6.4. Redistribution of income (secondary distribution of income account)**

- Resources under this account include current transfers in the form of (i) current taxes on income, wealth, etc., (ii) net social contributions<sup>10</sup> and (iii) other current transfers<sup>11</sup>.
- Current taxes on income, wealth, etc. consist mainly of taxes on the incomes of households or profits of corporations and of taxes on wealth. These are also sometimes referred to as direct taxes in some countries.

<sup>10</sup>Net social contributions include (i) employers' actual social contributions, (ii) employers' imputed social contributions, (iii) households' actual social contributions and (iv) households' imputed social contributions

<sup>11</sup>Other current transfers consist of all current transfers between resident institutional units, or between residents and non-residents, except for current taxes on income, wealth, etc. and social contributions and benefits.



- The uses side of this account include current transfers in the form of social benefits<sup>12</sup> other than social transfers in kind including social assistance<sup>13</sup> benefits in cash; and other current transfers.
- Social contributions are actual or imputed payments to social insurance schemes. They are paid by (i) employers on behalf of their employees and (ii) households in their capacity as employed, self-employed or unemployed persons. The employers' contributions are recorded as compensation of employees and therefore, form part of balance of primary incomes; whereas both employers' and households' contributions towards these schemes are recorded as payable by households and receivable by the units responsible for the social insurance schemes, in the secondary distribution of income account.
- As employers' social contributions are made for the benefit of their employees, their value is recorded as one of the components of compensation of employees together with wages and salaries in cash and in kind. The social contributions (together with their own contributions) are then recorded as being paid by the employees as current transfers to the social security schemes or other employment-related social insurance schemes.
- The balancing item of this account is the gross/net disposable income.

Explanation of the four terms used in this account social insurance, social security, social assistance and social transfers in kind (Para 8.6 to 8.9, 2008 SNA)

8.6 Social insurance schemes are schemes in which social contributions are paid by employees or others, or by employers on behalf of their employees, in order to secure entitlement to social insurance benefits, in the current or subsequent periods, for the employees or other contributors, their dependents or survivors. The social benefits payable by social insurance schemes are of two kinds, pensions and other benefits such as medical, education, housing or unemployment benefits. Pensions are always paid in cash; non-pension benefits may be payable in cash or in kind.

8.7 Two main types of social insurance schemes may be distinguished:

a. The first consists of social security schemes covering the entire community, or large sections of the community, that are imposed, controlled and financed by government units. Pensions payable under these schemes may or may not be related to levels of salary of the beneficiary or history of employment. Non-pension benefits are less frequently linked to salary levels.

b. The second type consists of other employment-related schemes. These schemes derive from an employer-employee relationship in the provision of pension entitlement that is part of the conditions of employment and where responsibility for the provision of benefits does not devolve to general government under social security provisions.

8.8 Social assistance benefits in cash are current transfers payable to households by government units or NPISHs to meet the same needs as social insurance benefits but which are not made under a social insurance scheme requiring participation usually by means of social contributions.

8.9 Social transfers in kind consist of social security benefits payable in kind and social assistance benefits payable in kind.

<sup>12</sup>Social benefits are current transfers received by households intended to provide for the needs that arise from certain events or circumstances. Benefits are divided into two groups; the first consists of pensions and the second of all other benefits, described as non-pension benefits. These cover, for example, payments due in respect of sickness, unemployment, housing, education or family circumstances. Social benefits may be provided under social insurance schemes or by social assistance.

<sup>13</sup>Social assistance is distinguished from social security in that eligibility to receive social assistance benefits is non-dependent on having elected to participate as demonstrated by the payment of contributions. Usually all members of resident households are entitled to apply for social assistance but the conditions under which it is granted are often restrictive.

### 2.6.5. Redistribution of income (redistribution of income account)

- The resource here is the balancing item from the secondary distribution of income account, namely, the gross/net disposable income.
- The uses in this account include social transfers in kind that include both non-market production and purchased market production. The whole of individual consumption of general government is treated as social transfers in kind.
- The balancing item in this account is called adjusted disposable income. For households, adjusted disposable income is higher than disposable income; for government and NPISHs, it is lower.

### 2.6.6. Use of income (use of disposable income account)

- The use of income account shows how the disposable income is allocated between final consumption and saving. This is the last account under current accounts.
- The resource in this account is the balancing item from the secondary distribution of income account, namely, the gross/net disposable income.
- The use is final consumption expenditure<sup>14</sup>, which is sub-divided between actual individual consumption<sup>15</sup> and actual collective consumption<sup>16</sup>.
- Adjustment for the change in pension entitlements is also recorded as a use.
- The collective consumption represented by monetary policy services is recorded as expenditure by general government but government does not incur the costs incurred by the central bank. Therefore a current transfer of the value of the non-market output should be recorded as payable by the central bank and receivable by the general government to cover the purchase of the non-market output of the central bank by government. The non-market output consists of monetary policy services, which are regarded as collective consumption.
- Final consumption expenditure of government is derived as:

Final consumption expenditure of government =	Value of all types of output of general government - value of output for own account capital formation - value of sales of goods and services + value of goods and services purchased from market producers for delivery to households free or at economically insignificant prices
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- The final consumption expenditures of general government can be classified:
  - a) According to whether the goods or services have been produced by market or non-market producers;
  - b) According to whether the expenditures are on collective services or individual goods or services;
  - c) By function or purpose according to the classification of the functions of government (COFOG); or

<sup>14</sup>Final consumption expenditure is the amount of expenditure on consumption goods and services.

<sup>15</sup>Consumption expenditures incurred for the benefit of individual households (social transfers in kind).

<sup>16</sup>Consumption expenditure incurred for the benefit of community as a whole or large sections of community.

d) By type of good or service according to the *CPC*.

- The balancing item in this account is gross/net saving.

### 2.6.7. Use of income (use of adjusted disposable income account)

- The resource in this account is the balancing item from the redistribution of income account, namely, the adjusted disposable income.
- The main entry in the use side of the account is actual final consumption<sup>17</sup>.
- Adjustment for the change in pension entitlements is also recorded as a use.
- Actual final consumption equals collective consumption of government

Actual final consumption of government =	Final consumption expenditure of Government – individual consumption of government
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- The balancing item in this account is the same as in the case of use of disposable income account, gross/net saving.

### 2.6.8. Capital account

- The capital account shows the change in net worth due to saving and capital transfers and the values of net acquisition of non-financial assets by resident institutional units.
- The right-hand side of the capital account represents changes in liabilities and net worth and records the resources available for the accumulation of assets. These consist of net saving, the balancing item carried forward from the use of income account, and capital transfers. Capital transfers payable are recorded here with a negative sign.
- The left hand side of the account shows, gross capital formation, consumption of fixed capital and acquisitions less disposals of non-produced assets. Resources coming from the disposal of existing assets appear as negative entries on the left-hand side of the account.
- Gross capital formation is measured by the total value of the gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables.
- Gross fixed capital formation is measured by the total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain specified expenditure on services that adds to the value of non-produced assets.
- There are borderline cases where certain expenditure can be categorised as fixed capital formation or as intermediate consumption. This distinction between intermediate consumption and gross capital formation depends on whether the goods and services involved are *completely used up* in the accounting period or not. If they are, the use of them is a current transaction recorded as intermediate consumption; if not it is an accumulation transaction recorded in the capital account.
- The asset boundary for fixed assets consists of goods and services that are used in production for more than one year (except for consumer durables purchased by households and small tools, but include expenditures on dwellings and own account construction by households)
- The balancing items of this account is *net lending (+)/net borrowing (-)* shown on the left hand side of the account. The total on the right hand side, called *changes in net worth due to*

<sup>17</sup>Actual final consumption measures the amount of consumption goods and services acquired.

*saving and capital transfers* is not a balancing item but has the same characteristic of being an analytical construct of particular interest.

- For the overall economy, gross capital formation can also be derived as sum of saving plus current external balance. The difference between this GCF and the estimated GCF as sum of GFCF, change in inventories and net acquisition of valuables equals statistical discrepancy, which in turn is the difference between production approach GDP and expenditure approach GDP. When the statistical discrepancy is zero, the following identity holds for the overall economy):

Gross Saving + Current external balance (with sign changed) =	Gross fixed capital formation + change in inventories + net acquisition of valuables
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- The sum of current external balance and capital external balance equals net lending to or borrowing from the rest of the world, for the overall economy.

## 2.7 Adjustments

While transforming government accounts to national accounts, several adjustments may need to be applied to meet national accounts requirements. Among these, the main ones are in respect of (i) consumption of fixed capital, (ii) valuation of inventories, (iii) in kind wages and salaries, (iv) imputed social security contributions, (v) financial intermediation services indirectly measured (FISIM) and (vi) accrual accounting.

### 2.7.1. Consumption of fixed capital

The output of government is measured on the basis of production costs that include consumption of fixed capital (CFC). However, government accounts mostly do not show amounts in respect of CFC. Some countries may include depreciation figures under expenses in the government accounts, but these differ considerably with the concept of CFC used in national accounting. Depreciation is normally an allocation of the original costs of fixed assets (historic cost) over subsequent reporting periods. On the other hand, CFC is a forward-looking measure that is determined by future, rather than past events—it is determined by the benefits that institutional units expect to derive in the future from using the asset in production over the remainder of its service life. Consumption of fixed capital is, therefore, based on current market value or replacement cost of the asset.

2008 SNA defines CFC as, “*The CFC is the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage*”.

Since CFC is charged as a cost of production, it is important to estimate CFC and include it in the measurement of output of government. Otherwise, government output and value added will be underestimated and these estimates will not be comparable with those of other countries.

CFC is estimated with respect to all fixed assets owned by government units, but not for valuables (precious metals, precious stones, etc.), which are acquired precisely because their value, in real terms, is not expected to decline over time. CFC also does not cover the depletion

or degradation of natural assets such as land, mineral or other deposits, coal, oil, or natural gas, or contracts, leases, and licenses<sup>18</sup>.

To compute CFC, fixed assets purchased in the past and still in use have to be revalued at the average prices of the reference period and assumptions have to be made regarding the remaining service lives of each asset and the rate at which their efficiency is expected to diminish.

Therefore, for estimating CFC, capital stock data are needed to be computed.

SNA recommends computing capital stock data indirectly through perpetual inventory method (PIM). Basically the PIM writes down the value of all assets existing at the beginning of the year in question by the reduction in their value during the year, and eliminates those assets that reach the end of their useful lives in the year and adds the written-down value of assets acquired during the year. The computations include that the values of assets are initially brought down to base year prices and after estimating capital stock using information on average service lives at base year prices, are again revalued to the prices of the current period by utilising appropriate price indices. Estimates of consumption of fixed capital are obtained as a by-product of the PIM.

The steps involved in PIM are as follows:

- Estimate what proportion of the fixed assets acquired in previous years has survived to the current period. Average service lives, or survival functions, based on observations or technical studies may be applied to past investments for this purpose.
- Fixed assets purchased at different prices in the past have then to be revalued at the prices of the current period by utilizing appropriate price indices for fixed assets.
- The stock of fixed assets surviving from past investment and revalued at the purchasers' prices of the current period but before deduction of consumption of fixed capital is often also described as the gross capital stock.

An approximate method of estimating CFC for general government in the absence of long series data on capital formation with some assumptions is presented below in section 2.9.

The second issue regarding CFC is allocating the total CFC to different functions of government. In these circumstances, approximations will have to be used. One possibility may be to distribute consumption of fixed capital according to book value depreciation, if it is available for detailed organizational units within government. Another approach would be to distribute consumption of fixed capital among functions in proportion to the net acquisition of fixed assets over a number of earlier years.

**Box 1.2: Madagascar – Calculation of consumption of fixed capital by the inventory method**

The 1993 SNA recommends the use of PIM for estimating capital stock from the data on gross fixed capital formation and derive from these the estimates of consumption of fixed capital (CFC). Thus, assessment of stock for current year is by estimating fixed assets still alive among those acquired in previous years. The estimate of the CFC is obtained by defining a function or survival rates of depreciation on fixed assets.

For current year, the stock of fixed assets should be valued at the price of the current year and that it would be bought if it was still new. It may be done using the price indexes of assets. The stock value thus calculated is called the GCS (SBK). The value of the depreciated stock called net capital stock (SNK) is then estimated. The

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<sup>18</sup>Changes in these assets are recorded in other changes in the volume of assets

difference between the gross capital stock and net capital stock gives the value of CFC. The calculation for the Malagasy case is presented below.

Let us denote  $t$  the current year for which we want to measure the CFC and  $L$  the number of years of life of fixed asset, and assume, as a function of survival, that  $1/L$  asset falls out of use each year. For stock revaluation, we multiply first with the price index  $p_j$  of the asset in year  $t$ :  $I_t - I_{t-j} = j \times p_j$ . Gross capital stock is estimated by the sum, in current value, fixed assets still in use in year  $t$  is given by the formula:

$$SBK = \sum_{j=0}^L \left( \frac{L-j}{L} I_{t-j} \right).$$

The method used to estimate depreciation is called “double declining balance depreciation” which means that half of the amount at the beginning of the year is amortized each year. Or in this case of declining balance, the residual value is never exhausted. A better approximation of depreciation is then obtained with double the value of fixed assets falling out of use each year equivalent to the value of  $2/L$  fixed assets with  $L = 2n$  and  $n$  is the life of fixed assets. Inventory values thus obtained is called net capital stock (SNK). As  $2/L = 1/n$ , SNK formula is given by:

$$SBK = \sum_{j=0}^n \left( \frac{n-j}{n} I_{t-j} \right).$$

The value of consumption of fixed capital relative to fixed assets retained is derived from the formula:

$$CFC = SBK - SNK$$

The table below shows the life of fixed assets for the Malagasy case:

<b>FIXED ASSETS</b>	<b>Life (years)</b>
Construction or rehabilitation of building	10
Construction or rehabilitation of channels	15
Construction or rehabilitation of networks	10
Plant and equipment	6
Transport equipment	10
Specialized complex installations	10

## 2.7.2. Valuation of inventories

Inventories are produced assets that consist of goods and services, which came into existence in the current period or in an earlier period, and that are held for sale, use in production or other use at a later date. Changes in inventories are measured by the value of the entries into inventories less the value of withdrawals and less the value of any recurrent losses of goods held in inventories during the accounting period.

The adjustments in the case of inventories relate to using the available data on inventories (source data is usually on historic costs, i.e., at the price of the goods when they were purchased) to estimate change in inventories and capital/holding gains/losses. This is because in national accounting, a withdrawal from stock must be valued at the prevailing market price at the time of withdrawal from inventories, since goods and services used for intermediate consumption can come from market purchases or inventories and they all must be valued at the same current market prices. Similarly, the output produced by the producer may either be sold or otherwise disposed of or be transferred to inventories as finished products or work-in-progress. In order to

ensure that output is consistently valued, finished goods transferred into inventories are valued as if they were sold at that time, while additions to work-in-progress are given the value they have at the time they are added to inventories.

The value of changes in inventories is the value of the inventories acquired less the value of the inventories disposed of during the year. SNA recommends the perpetual inventory method (PIM) for compiling data on change in inventories. The measure of inventories required for national accounting purposes is the change in inventories valued at the average prices ruling during the year. It can be calculated by taking the difference between closing (i.e. end of year) inventories and opening (i.e. beginning of year) inventories both valued at average annual prices for the year in question. The data required are prices for inventories at the end of the year, at the beginning of the year and the average for the year as a whole. The physical change in inventories valued at average annual prices is then obtained as follows:

Figure 1.1: Calculating change in inventories at average 2011 prices

(a) Value of inventories at beginning of 2011 (i.e. at 31 December 2010)		660
(b) Value of inventories at end of 2011 (i.e. at 31 December 2011)		855
(c) Change in value of inventories (i.e. change in book value) in 2011	(a) – (b)	195
<b>Price indexes for inventories</b>		
(d) Price index at beginning of 2011 (base year of volume estimates =100)		110
(e) Price index at end of 2011 (base year of volume estimates =100)		114
(f) Average price index for 2011 (base year of volume estimates =100)		112
<b>Inventories at constant prices</b>		
(g) Book value level at beginning of 2011, at constant prices	(a)/(d) x 100	600
(h) Book value level at end of 2011, at constant prices	(b)/(e) x 100	750
(i) Change in book value in 2011, at constant prices	(h) – (g)	150
<b>Change in inventories at average 2011 prices</b>		
(j) Change in inventories at average 2011 prices	(i) x (f)/100	168
<b>Capital gain</b>	(c) – (j)	27

**Source:** National Accounts Framework in the ICP: Operational Material, ICP 2011 Global Office

### 2.7.3. Wages and salaries in kind

Compensation of employees includes wages and salaries in cash or in kind, and employers' social contributions payable by employers on behalf of employees to social insurance schemes.

The adjustments here are to ensure that wages and salaries in kind are included in the estimates of compensation of employees as this component is included in the output and value added of government services.

Wages and salaries in kind are amounts payable in the form of goods, services, interest forgone, and shares issued to employees in return for work performed and exclude amounts connected with own-account capital formation. They consist of goods and services provided without charge, or at reduced prices. When provided at reduced prices, the value of the wages and salaries in kind is given by the difference between the full value of the goods and services and the amount payable by the employees.

Employers may remunerate their employees in kind for various reasons. For example:

- there may be tax advantages for the employer, the employee, or both by avoiding payments in cash;



- the employer may wish to dispose of outputs which are periodically in excess supply;
- the nature of the work may require frequent, or prolonged, absence from home so that the employee has to be provided with accommodation, travel, etc.(1993 SNA, para 7.37)

The following are the most common types of goods and services provided by the government to its employees without charge, or at reduced prices:

- meals and drinks provided on a regular basis, including any subsidy element of an office canteen (for practical reasons, it is not necessary to make estimates for meals and drinks consumed as part of official entertainment or during business travel);
- clothing or footwear that employees may choose to wear frequently outside of the workplace and while at work;
- housing services or accommodation of a type that can be used by all members of the household to which the employee belongs;
- the services of vehicles or other durables provided for the personal use of employees;
- goods and services produced by the employer, such as free travel on government airplanes or trains;
- sports, recreation, or holiday facilities for employees and their families;
- transportation to and from work, free or subsidized parking, when it would otherwise have to be paid for;
- childcare for the children of employees; and
- the value of the interest foregone by employers when they provide loans to employees at reduced, or even zero rates of interest for purposes of buying houses, vehicles, furniture, or other goods or services (these amounts are also recorded as interest receivable).

Some of these services, such as transportation to and from work, parking, clothing, etc. are provided because of the nature of the production process or the physical conditions under which employees have to work. Such expenses are not wages in kind, but are intermediate consumption of government.

However, there could be several borderline cases for which it will be difficult to fit them into appropriate categories. In principle, goods or services that employers are obliged to provide to their employees to enable them to carry out their work, such as tools, equipment, special clothing, etc., constitute intermediate consumption. On the other hand, goods or services that employees are able to use in their own time for the direct satisfaction of their needs or wants, or those of their families, constitute remuneration in kind.

However, sometimes the employers are obliged to provide certain facilities (such as transportation to and from work, car parking and crèches, which have some of the characteristics of intermediate consumption) to attract and retain labour, and not because of the nature of the production process or the physical conditions under which employees have to work. On balance, they are more like other forms of compensation of employees than intermediate consumption.

#### **2.7.4. Imputed social security contributions**

Employers' social contributions are social contributions payable by employers, to social security funds, employment-related pension funds, or other employment-related social insurance schemes to obtain entitlement to social benefits for their employees. These include (i) actual employers' social contributions and (ii) imputed employers' social contributions. Such contributions form part of compensation of employees. Though these contributions are not directly paid to



employees, they are rerouted, first to the employees and then from the employees to the social insurance schemes.

Imputed employers' social contributions are the amounts calculated and added to actual contributions, sufficient to exactly match the increases in employees' social benefit entitlements. These imputed employers' social contributions may relate to pension and to non-pension benefits.

Some government units provide employment related non-pension social benefits directly to their employees, former employees, or dependents out of their own resources without involving an insurance enterprise. The values of these benefits during the current year should be imputed based on *de facto* entitlements using actuarial methods that are normally used by insurance enterprises to determine the levels of premiums charged. In practice, however, it may be difficult to decide how large such imputed contributions should be. The government sector unit may make estimates, perhaps on the basis of the contributions payable into similar funded schemes, in order to calculate its likely liabilities in the future, and such estimates may be used when available. Otherwise, the only practical alternative may be to use the unfunded non-pension benefits payable by the unit to the pensioners during the same reporting period as an estimate of the imputed expense that would be needed to cover the imputed contributions.

Imputed employers' social contributions to employment-related pension benefits depend upon the type of pension scheme the government unit operates, especially in the case of defined-benefit pension scheme. In this case the imputed contribution is equal to the increase in benefits payable due to current period employment plus the costs of operating the scheme minus the sum of the government's actual contribution and the sum of any contributions by the employees. The level of the employer's contribution should be determined by assessing the increase in the net present value of the pension entitlement the employee has earned in the period in question, adding any costs charged by the pension fund for operating the scheme and deducting the amount of any contribution the employee makes this amount. This amount should be determined actuarially, taking into account only the life expectancy of the employee and not any future earnings or the impact of any future pay increases on the ultimate pension benefit.

### **2.7.5. Financial intermediation services indirectly measured (FISIM)**

FISIM allocated to the general government sector forms part of its intermediate consumption. Since this is an imputed estimate, these values may not be recorded in government accounts. Therefore, FISIM allocated to general government sector needs to be included in the intermediate consumption (and hence output) of government. Inclusion of FISIM, however, does not alter the value added estimates of general government, as both intermediate consumption and output are increased by the same amount of FISIM for non-market producers.

The first stage in allocating FISIM to producers (industries/sectors) and final users is to estimate the amount of FISIM earned by resident financial intermediaries payable by borrowers and the amount payable by lenders. The value of FISIM produced by resident financial intermediaries represents output and that coming from the rest of the world represents imports. The total supply of FISIM is thus the total of these two amounts. The FISIM paid by non-resident borrowers and lenders to resident financial intermediaries represents exports.

The 1993 SNA calculated FISIM as the difference between property income receivable and interest payable. This method is still followed in several countries. The 2008 SNA estimates the charges for FISIM as difference between the rate paid to banks by borrowers and reference rate plus the difference between the reference rate and the rate actually paid to depositors. The amounts of interest recorded in the SNA are calculated as the reference rate times the level of loan or deposit in question (called SNA interest). The difference between these amounts and the amounts actually paid to the financial institution (called bank interest) are recorded as service charges paid by the borrower or depositor to the financial institution. The implicit service charge is thus the sum of the bank interest on loans less the SNA interest on the same loans plus the SNA interest on deposits less the bank interest on the same deposits. The service charge is payable by or to the unit in receipt of the loan or owning the deposit as appropriate.

The reference rate to be used in the calculation of SNA interest is a rate between bank interest rates on deposits and loans. However, because there is no necessary equality between the level of loans and deposits, it cannot be calculated as a simple average of the rates on loans or deposits. The reference rate should contain no service element and reflect the risk and maturity structure of deposits and loans. The rate prevailing for inter-bank borrowing and lending may be a suitable choice as a reference rate.

FISIM is allocated to all institutional units borrowing from and lending to resident financial intermediaries. The value of FISIM earned is in relation to interest. Payments by non-financial corporations, NPISHs and general government represent intermediate consumption. No FISIM is consumed by financial intermediaries themselves, though inter-bank lending could give rise to a non-zero allocation of FISIM to financial corporations.

### **2.7.6. Accrual accounting**

In many countries, government units still apply cash accounting. International statistical guidelines and accounting standards have adopted the accrual basis of recording. Although an increasing number of governments have adopted accrual recording, many countries still use various mixes of source data based on cash and accrual based accounts. The differences in time lags between the economic events and the associated cash flows could distort the assessment of fiscal stance during a given year if a cash basis of accounting is mainly used. It is, therefore, preferable that fiscal targets include both cash and accrual measures. If no accrual source data are available, the African countries should agree on the methodology used to estimate the adjustments to convert cash data into accrual data. In practice, the adjustments required are especially relevant for taxes, social contributions, and interest.

## **2.8 Compilation of national accounts from government accounts**

Government budgets/accounts include several sub-accounts (such as consolidated fund, charge fund, development fund, etc.) categorised under different accounting heads (current and capital receipts and current and capital expenditures, etc.). The detailed item-wise revenues and expenses are shown against country specific ledger codes or simply under different descriptive items. The extent of details available in the government accounts vastly differs across countries. It is, therefore, difficult to identify a model budget that fits into all African country practices for the purpose of illustrating the transformation of government accounts to national accounts. In this chapter, the model budget used is from the publication *Eurostat handbook Essential SNA: Building the basics, 2013* (Chapter 5).

The government finance presentation consists of transactions that increase net worth leading to an aggregate called revenue and transactions that decrease net worth leading to the aggregate called expense. In addition there are two main balancing items, net operating balance and net lending or net borrowing.

Broadly, revenues comprise, taxes, social contributions including grants, other current revenue (property income, market sales of goods and services, fines, penalties and forfeits, voluntary transfers, miscellaneous and unidentified revenue) and capital transfers receivable. In addition there can be receipts from capital and financial operations. Expenses cover, production expenses (compensation of employees, intermediate consumption and consumption of fixed capital), interest payable, grants, social benefits, other current expenses and capital transfers payable. In addition, there are can be expenses towards capital and financial operations including loans or repayment of loans. Outlays are another item presented in government finance statistics, which is expense plus acquisitions less disposals of non-financial assets<sup>19</sup>.

Government finance presentation is according to the following structure.

## 1. Revenue

- 1.1 Taxes
- 1.2 Social contributions
- 1.3 Grants
- 1.4 Other revenue
  - 1.4.1 Property income
  - 1.4.2 Sales of goods and services
  - 1.4.3 Fines, penalties and forfeits
  - 1.4.4 Transfers not elsewhere classified
  - 1.4.5 Premiums, fees, and claims related to non-life insurance and standardized guarantee schemes

## 2. Expense

- 2.1 Compensation of employees
- 2.2 Use of goods and services
- 2.3 Consumption of fixed capital
- 2.4 Interest
- 2.5 Subsidies
- 2.6 Grants
- 2.7 Social benefits

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<sup>19</sup>The purchase of a non-financial asset is not an expense because it has no net effect on net worth since it represents the exchange of one type of asset for another or the incurrence of a liability matched by the acquisition of an asset.

## 2.8 Other expense

### 2.8.1 Property expense other than interest

#### 2.8.1.1 Dividends

#### 2.8.1.2 Withdrawals from income of quasi-corporations

#### 2.8.1.3 Property expense for investment income disbursements

#### 2.8.1.4 Rent

#### 2.8.1.5 Reinvested earnings on foreign direct investment

### 2.8.2 Transfers not elsewhere classified

#### 2.8.2.1 Current transfers not elsewhere classified

#### 2.8.2.2 Capital transfers not elsewhere classified

### 2.8.3 Premiums, fees, and claims related to non-life insurance and standardized guarantee schemes

The *net operating balance* is defined as revenue less expense. It is the balance of all transactions that affect net worth. Net lending or net borrowing is the amount a government has available to lend or must borrow to finance its non-financial operations. *Net lending or net borrowing* can be calculated as the net operating balance less the net acquisition of non-financial assets, or as total revenue less total outlays.

From the data on receipts and expenses available in the government budgets in its several types of sub-accounts and coded or described under various items, concordance tables can be prepared to allocate these data to SNA elements with the purpose of generating the following two classifications of expenses:

- 1) economic classification of expenses; and
- 2) Functional classification – Classification of the Functions of Government (COFOG).

Further, the economic and functional classifications of expenditure can be *cross-classified* as illustrated in Figure 1.2. A cross-classification of COFOG with each of the categories of the economic classification of expense is analytically useful. The cross-classification allows an analysis of:

- inputs, which show how governments perform their functions, and the outputs which show what governments are doing;
- how governments carry out their public expenditure policy functions to meet social objectives;
- changes in the composition of expenditure over time to serve specific policy objectives; and
- comparison of how specific functions are carried out by different governments

Figure 1.2: Cross-classification of expenditure by functional and economic classifications

Economic categories → COFOG ↓	Compensation of employees	Use of goods and services	Consumption of fixed capital	Interest	Subsidies	Grants	Social benefits	Other expense	Net Investment in nonfinancial assets
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General public services									
Defense									
Public order and safety									
Economic affairs									
Environmental protection									
Housing and community amenities									
Health									
Recreation, culture, and religion									
Education									
Social protection									

The following table presents an example (not exhaustive) of how each transaction extracted from government data contained in the budget income and expenses are linked to SNA transactions. Note that each budget may contain, under the main titles, specific items according to specific necessities of the government units in each country.

Figure 1.3: Simplified bridge table for the government accounts

<i>Budget items</i>	<i>SNA transactions</i>	<i>Amount</i>
<b>TOTAL INCOME</b>		237
<b>I. CURRENT INCOME</b>		<b>234</b>
<b>A. FISCAL INCOME</b>		87
<b>A.1 INCOME TAX, PROFIT AND CAPITAL EARNINGS</b>		<b>30</b>
<b>A.1.1 INCOME TAX, PROFIT AND CAPITAL EARNINGS FROM LEGAL ENTITIES</b>		<b>20</b>
1.1.1 INCOME TAX	D51	15
e.g. Income tax from economic agents	D51	
1.1.2 OTHER TAXES ON INCOME, PROFIT AND CAPITAL EARNINGS FROM LEGAL ENTITIES	D51	5
e.g. Tax on the incomes obtained by non-resident legal entities	D51	
<b>A.1.2. TAX ON INCOME, PROFIT AND CAPITAL EARNINGS FROM NATURAL PERSONS</b>		
TAX ON INCOME	D51	4
e.g. Tax on salary income		
e.g. Tax on wealth	D51	
BROKEN DOWN QUOTAS AND AMOUNTS FROM THE TAX ON INCOME (TO BE DEDUCTED)	D51	
<b>A.1.3. OTHER TAXES ON INCOME, PROFIT AND CAPITAL EARNINGS</b>	D51	6
<b>A2. TAX ON SALARIES</b>	D51	5
<b>A3.TAXES AND DUTIES ON OWNERSHIP</b>		
e.g. Tax on the land located outside the city area	D59	4
<b>A4.TAXES AND DUTIES ON GOODS AND SERVICES</b>		20
VALUE ADDED TAX	D21	10
BROKEN DOWN VAT AMOUNTS (to be deducted)		
e.g. Broken down VAT amounts for roads (to be deducted)		
<b>OTHER TAXES AND GENERAL DUTIES ON GOODS AND SERVICES</b>		
e.g. Tax on the crude oil from internal production and natural gases	D21	2
e.g. Quotas applied on the income obtained in the civil aviation field	D29	
EXCISES	D21	5
e.g. Excises collected from the sale of mineral oils	D21	
e.g. Excises collected in customs from the import of mineral oils	D21	
DUTIES ON SPECIFIC SERVICES	D21	3
DUTIES ON THE USE OF GOODS, AUTHORISATION OF THE USE OF GOODS OR PERFORMANCE OF ACTIVITIES	D51, D29, D21	
e.g. Duties on gambling	D51, D21	
<b>A5. TAX ON FOREIGN TRADE AND INTERNATIONAL TRANSACTIONS</b>		
CUSTOMS DUTIES AND OTHER DUTIES ON INTERNATIONAL TRANSACTIONS	D21, D29	25
e.g. Custom duties from legal entities	D21	

<i>Budget items</i>	SNA transactions	Amount
A6. OTHER TAXES AND FISCAL FEES	D51, D21, D29	3
B. INSURANCE CONTRIBUTIONS	D611, D613	7
C. NON-FISCAL INCOME		140
C1. OWNERSHIP INCOME		
OWNERSHIP INCOME	D42, D44, D45	80
INCOME FROM INTEREST	D41	50
CURRENT TRANSFERS	D73, D74, D75	
C2. SALE OF GOODS AND SERVICES	P11	10
II. CAPITAL INCOME		
INCOME FROM SALE OF ASSETS (-)	P51	3
III. FINANCIAL OPERATIONS		
COLLECTIONS FROM THE REPAYMENT OF LOANS GRANTED	Financial transaction	

<i>Budget items</i>	SNA transactions	Amount
<b>TOTAL EXPENSES</b>		<b>212</b>
<b>A. CURRENT EXPENDITURES</b>		<b>198</b>
<b>TITLE I. STAFF EXPENDITURES</b>		<b>33</b>
e.g. salary expenditures in cash	D11	25
salary expenditures in kind	D11	5
contributions	D12	3
<b>TITLE II. GOODS AND SERVICES</b>		<b>68</b>
Goods and services		
– office supplies	P2	5
– cleaning materials	P2	1
– heating, lighting	P2	2
– water, sewerage, sanitation	P2	6
– fuels and lubricants	P2	8
– transport	P2	2



<b>Budget items</b>	<b>SNA transactions</b>	<b>Amount</b>
– mail, telecommunications, radio, TV, internet	P2	3
– other goods and services for maintenance and operation, etc.	P2	9
Current repairs	P2	5
Food		
– food for humans	D11, P2	4
– animal feed	P2	1
Medicinal products and medical materials	P2	5
Goods as inventory items		
– uniforms and equipment	D11, P2	2
– bed linen and accessories	P2	1
Travels, secondments	P2, D11	6
Books and publications, etc.	P2	3
Actions of a scientific and social and cultural nature	D75, P2	2
.....		
Other expenditure, such as:		
– protocol and representation	P2	1
– non-life insurance premiums	D71	1
– rents	D45	1
<b>TITLE III. INTEREST</b>	D41,D92	6
<b>TITLE IV. SUBSIDIES</b>		<b>13</b>
Subsidies for products	D31	8
Social protection in the mining sector	D62	4
Support for farmers, other grants, etc.	D39	1
<b>TITLE VI. TRANSFERS BETWEEN THE GENERAL GOVERNMENT'S UNITS</b>		<b>29</b>
Current transfers		12
Transfers to public institutions	D73	5
Maintenance of road infrastructure, etc.	D92	7
Capital transfers		17
Transfers to finance investments in hospitals	D73, D92	8

<b>Budget items</b>	<b>SNA transactions</b>	<b>Amount</b>
Programme for paving of roads and water supply of villages, etc.	D92	9
<b>TITLE VII. OTHER TRANSFERS</b>		<b>37</b>
<b>A. Internal transfers</b>		<b>0</b>
Reimbursable financing programmes	P51,D92	0
Community programmes	D75	10
Investment of economic operators with state capital	D92	12
Restructuring of the defence industry	D39, D92	9
Current repairs relating to public railway infrastructure, etc.	P2	5
B. Current transfers abroad (to international organizations)	D74	1
<b>TITLE VIII. SOCIAL ASSISTANCE</b>		<b>9</b>
Social security	D62	2
Special pensions	D12,D62	3
Social aids in kind	D63	4
<b>TITLE IX. OTHER EXPENDITURE</b>		<b>3</b>
Scholarships	D62	1
Associations and foundations, etc.	D75	1
State orders for books and publications, etc.	P2	1
<b>B. CAPITAL EXPENDITURES</b>		<b>0</b>
<b>TITLE X. NON-FINANCIAL ASSETS</b>		<b>14</b>
Fixed assets: e.g. constructions, machines and transportation , etc.	P51	10
Inventories	P52	4
<b>TITLE XI. FINANCIAL ASSETS</b>	Financial transactions	<b>0</b>
<b>TITLE XII. LOANS</b>	Financial transactions	<b>0</b>
<b>TITLE XIII. REPAYMENT OF LOANS</b>	Financial transactions	<b>0</b>

Source for the structure: Eurostat handbook Essential SNA: Building the basics, 2013, Chapter 5

The sequence of accounts for the general government compiled from the above accounts is presented below. The estimates of CFC included in the sequence of accounts are externally determined and has been assumed to be 5 in this illustration. Further, the change in inventories has been assumed to be same as inventories valued as 4 for the sake of simplicity. The other adjustment items such as wages in kind, FISIM, and imputed social contributions have been assumed to be zero in this example. For some of the budget items, the SNA transactions could be classified under more than one code, in the absence of details, as shown in the above table. However, in the following sequence of accounts, the first SNA code shown in the above table only has been considered to record expenditure shown against such items.

Figure 1.4: Sequence of accounts for general government

I: Production account

Resources	
P.1 Output	111
P.11 Market output	10
P.12 Output for own final use	0
P.13 Other non-market output	101
Uses	
P.2 Intermediate consumption	64
<b>B.1g Value added, gross</b>	<b>47</b>
K.1 Consumption of fixed capital	5
<b>B.1n Value added, net</b>	<b>42</b>

II.1.1: Generation of income account

Resources	
<b>B.1n Value added, net</b>	<b>42</b>
<b>B.1g Value added, gross</b>	<b>47</b>
Uses	
D.1 Compensation of employees	42
D.11 Wages and salaries	36
D.12 Employers' social contributions	6
D.29 Other taxes on production	0
D.39 Other subsidies on production	0
<b>B.2 Operating surplus, net</b>	<b>0</b>
<b>B.2 Operating surplus, gross</b>	<b>5</b>

II.1.2: Allocation of primary income account

Resources	
<b>B.2 Operating surplus, net</b>	<b>0</b>
D.2 Taxes on production and imports	45
D.21 Taxes on products	45
D.29 Other taxes on production	0
D.3 Subsidies	-18
D.31 Subsidies on products	-8
D.39 Other subsidies on production	-10
D.4 Property income	130
D.41 Interest	50
D.42 Distributed income of corporations	80
D.44 Property income attributed to insurance policyholders	0
D.45 Rent	0
Uses	
D.4 Property income	7
D.41 Interest	6
D.42 Distributed income of corporations	0
D.45 Rent	1
<b>B.5 Balance of primary incomes, net</b>	<b>150</b>

## II.2: Secondary distribution of income account

Resources	
B.5 Balance of primary incomes, net	150
D.5 Current taxes on income, wealth, etc.	42
D.51 Taxes on income	38
D.59 Other current taxes	4
D.61 Social contributions	7
D.7 Other current transfers	0
D.72 Non-life insurance claims	0
D.73 Current transfers within general government	0
D.74 Current international corporations	0
D.75 Miscellaneous current transfers	0
Uses	
D.5 Current taxes on income, wealth, etc.	0
D.59 Other current taxes	0
D.62 Social benefits other than social transfers in kind	7
D.7 Other current transfers	28
D.71 Net non-life insurance premiums	1
D.73 Current transfers within general government	13
D.74 Current international corporations	1
D.75 Miscellaneous current transfers	13
B.6 Disposable income, net	164

## II.3: Redistribution of income in kind account

Resources	
B.6 Disposable income, net	164
Uses	
D.63 Social transfers in kind	4
B.7 Adjusted disposable income, net	160

## II.4.1: Use of disposable income account

Resources	
B.6 Disposable income, net	164
Uses	
P.3 Final consumption expenditure	105
P.31 Individual consumption expenditure	4
P.32 Collective consumption expenditure	101
D.8 Adjustment for the change in net equity of households on pension funds	0
B.8 Saving, net	59

#### II.4.2: Use of adjusted disposable income account

Resources	
B.7 Adjusted disposable income, net	160
Uses	
P.4 Actual final consumption	101
P.42 Actual collective consumption	101
D.8 Adjustment for the change in net equity of households on pension funds	0
B.8 Saving, net	59

#### III.1: Capital account

Changes in liabilities and net worth	
B.8n Saving, net	59
D.9 Capital transfers, receivable	0
D.9 Capital transfers, payable	-28
B.10.1 Changes in net worth due to saving and capital transfers	31
Changes in assets	
P.51 Gross fixed capital formation	7
K.1 Consumption of fixed capital	5
P.52 Changes in inventories	4
P.53 Acquisitions less disposals of valuables	0
K.2 Acquisitions less disposals of non-produced non-financial assets	0
B.9 Net lending (+) / net borrowing (–)	25

Figure 1.5 below presents net lending as defined in the government finance presentation. The net lending data compiled from this table matches with that shown in the capital account of the sequence of accounts, shown above.

Figure 1.5: Operating Balance and net lending

1. current revenues	234
2. current expenditures	198
3. operating balance (1-2)	36
4. receipts from sale of assets	3
5. capital formation	14
6. net acquisition of non-financial assets (5-4)	11
7. net lending (3-6)	25

## 2.9 Calculations: consumption of fixed capital (CFC) for government

Consumption of fixed capital is one of the cost components of government output. Governments typically own large stocks of fixed assets including office buildings, vehicles, computers, hospital equipment, and office furniture as well as infrastructure such as roads bridges, dams,

and water supply and sewage networks. In the 1968 SNA CFC was not calculated in respect of most infrastructure assets because they were assumed to have infinite lives but the 1993 SNA takes the more realistic view that although infrastructure assets may have long lives they eventually do need to be replaced. CFC should therefore be calculated in respect of all government-owned assets.

In some countries the government accounts include estimates of depreciation but these are invariably calculated by writing down the acquisition, or “historic”, costs of assets whereas the SNA requires that CFC be calculated after revaluing assets to their current market values. As many government assets have long lives, depreciation based on historic costs may understate CFC based on current market values by a substantial amount. In most countries the government accounts show no entry for depreciation.

The SNA recommends that CFC be calculated from capital stock estimates derived from a Perpetual Inventory Model (PIM). The problem is that a PIM requires long time series of GFCF and related price statistics and very few developing countries have so far succeeded in calculating capital stocks using the PIM. Below is an alternative approach which may be feasible in many countries as it only requires information on government GFCF for a single year. It does of course also require some bold assumptions.

#### ***Short-cut method to estimate capital stock***

The net capital stock at the beginning of the benchmark year 0, denoted here by  $K^{t0}$ , is approximately equal to the sum of the depreciated assets, denoted here by  $I^t$ , that were installed in earlier years and that are still in use. Equation (1) expresses this relationship<sup>20</sup>:

$$K^{t0} \approx I^{t0-1} + I^{t0-2} (1 - \delta) + I^{t0-3} (1 - \delta)^2 + \dots \quad (1)$$

Here  $\delta$  is the constant rate by which each year's GFCF loses market value through obsolescence and wear and tear. (We consider its calculation later.)

Suppose now that GFCF grows each year in real terms by a constant rate denominated by  $\theta$  so that  $I^{0t-2} = I^{0t-1} / (1 + \theta)$ , and  $I^{0t-3} = I^{0t-1} / (1 + \theta)^2$ , etc.;

Then the net capital stock at the beginning of the benchmark year can be written as

$$K^{t0} \approx I^{t0-1} \{ 1 + [(1 - \delta)/(1 + \theta)] + [(1 - \delta)/(1 + \theta)]^2 \dots \} \quad (2)$$

Equation (2) is a geometric series with  $\frac{1-\delta}{1+\theta}$  as the common ratio. Summing to infinity, equation (2) becomes<sup>21</sup>:

$$K^{t0} \approx \frac{I^{t0-1}}{1 - \frac{1-\delta}{1+\theta}} = \frac{I^{t0-1}}{\frac{1+\theta}{1+\theta} - \frac{1-\delta}{1+\theta}} = \frac{I^{t0-1}}{\frac{1+\theta-1+\delta}{1+\theta}} = \frac{I^{t0-1}(1+\theta)}{\theta+\delta} = \frac{I^{t0}}{\theta+\delta} \quad (3)$$

<sup>20</sup> This is an approximation to  $K^{t0}$  because  $I^{t0-1}$  will also have depreciated by the beginning of the benchmark year except in the unlikely event that all  $I^{t0-1}$  occurred on the last day of the year

<sup>21</sup> Recall that the sum to  $n$  of a geometric series of the form  $a + ar + ar^2 + \dots + ar^n$  is  $a(1 - r^{n+1})/(1 - r)$ . As  $n \rightarrow \infty$ ,  $r^n$  approaches zero if  $r < 1$ . The sum to infinity then becomes  $a/(1 - r)$ . Here  $r = (1 - \delta)/(1 + \theta)$  which must always be less than unity whatever the (positive) values of  $\delta$  and  $\theta$ .

Equation (3) shows that the net capital stock of the benchmark year ( $K^{t0}$ ) can be approximated using only the GFCF of the benchmark year ( $I^{t0}$ ) and assumptions about the rate of (geometric) depreciation ( $\delta$ ) and the average real growth rate of GFCF ( $\theta$ ). How do we calculate  $\delta$  and  $\theta$ ?

Clearly  $\delta$  will vary depending on the type of asset so you will need to break down government GFCF into as many categories as possible. A three way breakdown is the minimum:

- machinery and equipment
- government buildings
- roads, bridges, dams and other infrastructure.

The depreciation term  $\delta$  is calculated as  $d/L$  where  $L$  is the expected service life of the asset and  $d$  is the depreciation factor which is usually set between 1.0 and 2.0. If  $d$  is set equal to 2.0 depreciation is described as “double declining” and this is the depreciation method often used by commercial accountants. Here we will set  $d$  at 1.6: this value of  $d$  generates a depreciation profile similar to that obtained using straight-line depreciation which is generally regarded as the most appropriate method of calculating depreciation. (The problem with straight-line depreciation is that it requires a time series of GFCF and associated price deflators: geometric depreciation, which is being used here, is much less data-demanding.)

The growth term,  $\theta$ , is the average real annual growth in government GFCF. Assuming that you have no long time series on real GFCF for government,  $\theta$  could be set equal to the long-term real growth rate of GDP. In the OECD region this is probably around 2%, but in many developing countries it will be higher than this – between 4% and 5% perhaps. Of course, if you have reason to think that government GFCF has actually been growing faster or more slowly than real GDP, you should use your own best estimate of  $\theta$ .

Figure 1.6: Illustrative values for  $\delta$  and  $\theta$

Type of government asset	Depreciation factor ( $d$ )	Possible service life ( $L$ ) in years	Possible values of $\delta$ , i.e. $d/L$	Illustrative values of $\theta$ , i.e. long-term real growth rate of government GFCF
Machinery and equipment	1.6	8-12	0.200 to 0.133	0.04 – 0.06
Buildings	1.6	50 - 70	0.032 to 0.023	0.04 – 0.06
Infrastructure (roads, etc.)	1.6	100 -150	0.016 to 0.011	0.04 – 0.06

Suppose, for example, that we have the following information on government GFCF in the benchmark year:

- GFCF in machinery and equipment is estimated at 246,000 kwacha. Using, as an illustration, the mid-points from the table for  $\delta$  and  $\theta$  the government capital stock of machinery and equipment will be estimated as  $246,000 / (0.167 + 0.050) = 1,133,641$  kwacha.
- GFCF in roads, bridges and other infrastructure is estimated at 403,500 kwacha. Again using mid-points for  $\delta$  and  $\theta$  the stock of infrastructure assets will be calculated as  $403,500 / (0.0135 + 0.050) = 6,354,331$  kwacha.

This very simple model for calculating a capital stock can sometimes be improved in either of two ways:



- If government GFCF is volatile from year to year it may be better to take an average of GFCF for three or four years as the starting point for calculating the capital stock.
- Another possibility is to calculate the capital stock not for the benchmark year but for the earliest year for which a time series of government GFCF (at constant prices) is available. The stock calculated for this earliest year is then updated to the benchmark year by adding each year's GFCF and multiplying each updated estimate of the stock by  $(1 - \delta)$ . In this way maximum use is made of the available data rather than using an estimated growth rate of  $\theta$ .

### ***Consumption of fixed capital***

Consumption of fixed capital (CFC) for the benchmark year consists of two elements:

- First, there is CFC on the stock of assets in place at the beginning of the benchmark year. In the example above the stock of infrastructure assets was estimated to be 6,036,614 kwacha so CFC on the existing stock will be  $6,354,331 \times 0.0135 = 85,783$  kwacha.
- Second, there is CFC on the assets put in place during the benchmark year. If all these assets had been put in place on the 1st January they would all have depreciated by  $\delta$ , and if they had been put in place on the 31st December there would be no depreciation at all. Assuming that the infrastructure GFCF occurred evenly throughout the year, CFC can be calculated as  $\delta/2 \times 403,500 = 2,724$ .
- Total CFC on infrastructure for the benchmark year is therefore  $85,734 + 2,724 = 88,458$  kwacha.

This is obviously a crude method of estimating the capital stock and CFC, but it is certainly better than assuming that CFC is zero (i.e. just ignoring it) and it is most likely to be nearer the true figure for CFC than a depreciation estimate based on historic costs that may be available from the government accounts

### **Reference:**

*Measuring Capital: OECD Manual, 2<sup>nd</sup> Edition*, (Pages. 130-131 deal with the estimation of a capital stock using limited data. The method described here for estimating CFC for government is based on this section of the *Manual*.) OECD, Paris 2009.

## **2.10 Summary**

This chapter presents a broad summary of SNA guidelines on preparation of sequence of accounts for general government and illustrates the translation of government accounts to national accounts using SNA transaction codes for a model budget.

General government units include central, state, and local governments and also the statutory bodies or extra-budgetary units and the non-profit institutions controlled by government. While preparing national accounts for general government, it is essential to collect accounts of all these government units and ensure that the coverage of general government is exhaustive in national accounts.

If the countries follow a classification of standard ledger codes for receipts and expenses that is unique across all levels of government in respect of receipts and expenses, concordance tables can be prepared between these ledger codes and SNA transactions that will facilitate the preparation of sequence of accounts for general government sector. Availability of micro-data

electronically also helps in reducing the computation work of translating government accounts to national accounts.

## Chapter 2. Use of financial statements of financial corporations in national accounts

### 3.1. Introduction

This chapter deals with the translation of administrative data of financial corporations comprising their financial statements, to the national accounts. The financial corporations are engaged in a large number of financial and insurance activities, the most important among them being the central bank, commercial banks, life-insurance and non-life insurance companies. This chapter focuses on preparing national accounts of financial corporations engaged in these four activities.

The text for the chapter has mainly been sourced from the following three documents:

- 1) *European Commission, IMF, OECD, UN, World Bank: System of National Accounts, 1993 and 2008* (referred to as 1993/2008 SNA)
- 2) *United Nations, European Central Bank: Handbook of National Accounting: Financial Production, Flows and Stocks in the System of National Accounts, 2014* (referred to as UN-ECB Handbook (2014))
- 3) *Eurostat handbook Essential SNA: Building the basics, 2013* (referred to as Eurostat Handbook (2013))

The chapter also includes in the box items, few African country practices of using accounts of financial corporations in compiling national accounts.

Financial corporations are engaged in financial and insurance activities. The administrative data for the financial corporations comprises the financial statements of individual companies or the consolidated financial statements of all units provided by the regulatory/supervisory agencies. Mostly, for the banking activities, the micro-data of individual financial corporations is consolidated by the central bank, while for the insurance corporations such consolidated data is maintained by the insurance regulatory agencies. In some countries, the regulatory agency for stock exchanges also maintains micro-data of financial statements of companies listed on the stock exchanges.

In addition to the financial statements, the regulatory/supervisory agencies also conduct surveys or prescribe returns to the financial corporations to collect statistics on financial and insurance activities, mainly to serve the administrative/supervisory/regulatory functions of these agencies.

All the above types of administrative data, namely, (a) micro-data of individual companies in the form of their financial statements comprising income account (also known as profit and loss account), balance sheet, cash flow statement and accounting policies and explanatory notes; (b) consolidated financial statements of all companies engaged in the same activity by the regulatory or supervisory agencies; and (c) summarized financial and insurance data collected through surveys or the returns prescribed by the regulatory or supervisory agencies, provide the necessary information for compiling national accounts, with few adjustments. In general, these source data provide detailed information on deposits, loans, debt securities and shares, with corresponding

breakdowns by original maturity, currency denomination and counterpart sector, for the banking sector; and premiums, claims/benefits, reserves, etc. for the insurance sector.

It is rarely the practice for national statistics offices to conduct surveys on financial and insurance activities of corporations, though they may conduct surveys to collect information on financial activities of households or when detailed information required for compilation of national accounts is not available from the above sources.

The ECA survey of December 2013 on the sources and methods used to compile national accounts in the 54 African member countries (47 countries responded) showed that countries generally use accounts of financial corporations and banking and insurance statistics provided by the regulatory/supervisory agencies, in the national accounts compilation.

Among the countries responded to the survey carried out by ECA, it was observed that central banks on less than third of countries distinguish between their three activities of monetary, supervisory/regulatory and banking, in their accounts. On the other hand, in about a quarter of the countries no information is available on any central bank activities.

In two thirds of countries, financial statements are available for each individual commercial bank and consolidated accounts are available for about a quarter of countries. Although consolidated data is sufficient for national accounts purposes, most national accounts compilers would prefer statements for each individual bank so that they can identify and verify any large movements from year to year.

FISIM allocation has proved difficult and many countries have not yet devised satisfactory procedures for doing it. Information on loans and deposits is essential for any allocation system, and only 19 countries have the detailed information required on loans and deposits while 20 countries report that they have no information at all. This no doubt explains why many countries are still not able to allocate FISIM to users as recommended by 1993/2008 SNA.

Information from life and non-life insurance companies is required both to calculate the gross output of insurance companies including premium supplements. Information on claims and net premiums are also required for the sequence of accounts. About two-thirds of countries have the necessary information for life insurance and three-quarters for non-life insurance. On the other hand, eight countries have no data available for life insurance and four countries have no data available for non-life insurance.

#### **Box 2.1: Niger – Compiling national accounts variables for financial corporations**

In Niger, **Central Bank accounts** are not integrated in the compilation of the GDP. Despite multiple actions undertaken by the NIS to obtain the accounting data of the National Agency of the Central Bank of West African States for Niger, no progress has been made yet.

Regarding commercial banks, banking services include banking commissions and financial intermediation services that are measured by the difference between the interest receipts from loans and interest payments on deposits. The consumption of financial intermediation services is attributed to a fictive branch. In the case of these banks, the individual documents are collected by the NIS each year, often, with considerable delay. It should be noted, however, that the accounting documents are not always presented in the same way, and sometimes they are not detailed (for example data on credit grants by activity, that could facilitate the allocation of FISIM is not available). In addition, a large part of micro finance companies do not reply or only reply with the partial statistical information. For all these reasons, the accounts are

adjusted by estimating for non-response with the help of certain indicators or the averages based on responding units.

The accounting documents of insurance companies are collected directly by the NIS from the companies. Insurance output is estimated on the basis of premiums collected, net revenues from the placement of reserves, claims/benefits due, and the variation in the life insurance reserves. Here as well, there are non-responses and we make adjustments in the same way as with the commercial banks.

It should be noted that the Ministry of Finance is a precious source for accounting information on financial enterprises. Even though NIS collects data directly with some delay, MoF has the advantage of providing an exhaustive global picture.

### **3.2. Financial corporations in 2008 SNA**

The principal activity of financial corporations<sup>22</sup> is to provide financial services. These financial services cover financial intermediation services, insurance and pension fund services, and the provision of activities that facilitate financial intermediation. The production of financial services is the result of financial intermediation, financial risk management, liquidity transformation or auxiliary financial activities.

In the UN International Standard Industrial Classification (ISIC) Rev 4.0, the activities classified under financial services are:

#### **Section K: Financial and insurance activities**

#### **64 Financial service activities, except insurance and pension funding**

##### **641 Monetary intermediation**

###### **6411 Central banking**

###### **6419 Other monetary intermediation**

- banks
- savings banks
- credit unions

##### **642 Activities of holding companies**

##### **643 Trusts, funds and similar financial entities**

##### **649 Other financial service activities, except insurance and pension funding activities**

#### **65 Insurance, reinsurance and pension funding, except compulsory social security**

##### **651 Insurance**

###### **6511 Life insurance**

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<sup>22</sup> The corporations are divided between those mainly providing financial services and those mainly providing goods and other services, which are respectively known as financial corporations and non-financial corporations. The distinction is made in SNA because of the special role that financial corporations play in the economy.

6512 Non-life insurance

652 Re-insurance

653 Pension funding

**66 Activities auxiliary to financial service and insurance activities**

661 Activities auxiliary to financial service activities, except insurance and pension funding

662 Activities auxiliary to insurance and pension funding

663 Fund management activities

Financial corporations consist of (i) all resident corporations that are principally engaged in providing financial services; (ii) branches of non-resident enterprises that are engaged in financial activity on the economic territory on a long-term basis; and (iii) all resident non-profit institutions (NPIs) that are market producers of financial services.

Financial corporations can be divided into three broad classes, namely,

- Financial intermediaries: institutional units that incur liabilities on their own account for the purpose of acquiring financial assets by engaging in financial transactions on the market. They include insurance corporations and pension funds.
- Financial auxiliaries: institutional units principally engaged in serving financial markets, but do not take ownership of the financial assets and liabilities they handle.
- Other financial corporations: institutional units providing financial services, where most of their assets or liabilities are not available on open financial markets.

The financial corporations sector can be divided into nine sub-sectors according to its activity in the market and the liquidity of its liabilities. These nine sub-sectors<sup>23</sup> are shown below. Sub-sector 6 corresponds to financial auxiliaries; sub-sector 7 corresponds to other financial corporations. All the other sub-sectors are financial intermediaries of one sort or another.

**S12 Financial corporations**

S121 The central bank

S122 Deposit-taking corporations, except the central bank

S123 Money market funds (MMFs)

S124 Non-MMF investment funds

S125 Other financial intermediaries except insurance corporations and pension funds

S126 Financial auxiliaries

S127 Captive financial institutions and money lenders

S128 Insurance corporations

S129 Pension funds

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<sup>23</sup> The sectors are classified in SNA under S codes. S12 refers to financial sector.

The following sections deal specifically with the use of administrative data concerning central bank, commercial banks, life and non-life insurance, in national accounts.

### **3.3. Central bank (S121)**

Central banks carry out a number of functions, grouped under monetary policy, financial intermediation and regulatory/supervisory services. These services fall under collective and individual services and some of them are measured on non-market basis and some on market basis, depending on the nature of functions and the income received from the services provided. In the SNA, central bank transactions are recorded in a special manner, especially in respect of those relating to collective consumption and interest receipts and payments.

#### **3.3.1. Definition and coverage**

The central bank is the national financial institution that exercises control over key aspects of the financial system. It is the public financial corporation which is a monetary authority: that is, which issues banknotes and sometimes coins and may hold all or part of the international reserves of the country. The central bank also has liabilities in the form of demand or reserve deposits of other depository corporations and often government deposits.

This sub-sector consists of the central bank together with any other agencies or bodies which regulate or supervise financial corporations and which are separate institutional units.

In general, the following financial intermediaries are classified in this sub-sector: (i) the national central bank; (ii) currency boards or independent currency authorities that issue national currency that is fully backed by foreign exchange reserves; and (iii) central monetary agencies of essentially public origin (for example, agencies managing foreign exchange or issuing bank notes and coin) that keep a complete set of accounts but are not classified as part of central government.

Some important points to note here are:

- Supervisory authorities that are separate institutional units are not included with the central bank but are included with financial auxiliaries.
- When the central bank is a separate institutional unit, it is always allocated to the financial corporations sector even if it is primarily a non-market producer.
- Many central banks also engage in some commercial banking. However, all activities of central bank, including its commercial banking activities, are classified under “central banks”.
- Some countries may not have central banks and their activities<sup>24</sup> are performed by government units under the direct control and supervision of central government. Such government units are classified under government sector and not under financial corporations.

Services produced by the central bank are broadly classified under the following three groups:

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<sup>24</sup>Such as issue of currency, the maintenance of international reserves and the operation of exchange stabilization funds, and also transactions with the International Monetary Fund.



- **Monetary policy services:** Monetary policy refers to measures or actions taken by the central bank to influence the general price level and the level of liquidity in the economy. These could include setting interest rates and determining the level of money supply in the economy through various tools, such as increasing/decreasing the reserve requirements. Monetary policy services are collective in nature, serving the community as a whole, and thus represent non-market output of the central bank. The output of these services is estimated on non-market basis.
- **Financial intermediation services:** Financial intermediation services are individual in nature and, in the absence of policy intervention in the interest rates charged by the central banks, would be treated as market production. The method to calculate the output of these financial intermediation services is the same as the method to calculate FISIM.
- **Borderline cases, such as supervisory services:** The borderline cases, such as supervisory services, may be classified as market or non-market services, depending on whether explicit fees are charged that are sufficient to cover the costs of providing these services.

### **3.3.2. Sources of data on central bank**

The source of data for compiling national accounts in respect of central bank activities is the central bank itself. The central banks usually produce annual financial statements comprising income statement (sometimes referred to as profit and loss account) and balance sheet and publish them in their annual reports. These annual reports are generally public documents and national accountants can have direct access to the financial statements included in these reports.

However, the financial statements published in the annual report of central banks may not provide the necessary details that are required for national accounts compilation, though they may have been prepared in compliance with International Accounting Standard (IAS) / International Financial Reporting Standard (IFRS) and also include explanatory notes to the accounts. Moreover, in most developing countries, the financial statements of central banks are presented together for all their activities, namely, the monetary policy, banking services and supervisory services, but not separately. On the other hand, central banks in some countries publish financial accounts separately for these services in respect of either profit and loss account or balance sheet or both, in their annual reports. In summary, the data available from central bank accounts that are placed in public domain may not be sufficient for compiling national accounts.

Irrespective of country practices in releasing the financial statements, central banks internally maintain detailed information (such as on establishment costs, purchases, travel and transportation expenses, repair and maintenance, rent and rentals, capital expenses, financial transactions, etc.) and sometimes, separately for different types of services (monetary policy, banking activities, and supervisory services) provided by them. Therefore, the national accounts compiling agency should establish a mechanism, whereby the central bank provides detailed information separately for the three different services for use in the compilation of national accounts. Such detailed information segregated by different functions of central bank is necessary for the national accounts compilation, as methods to calculate output and other economic variables is different for these services. If the central banks in some countries do not maintain separate accounts for its various functions, there is no option for the national accountants but to treat the whole of central bank as a non-market producer.

### 3.3.3. Structure

The central bank financial accounts generally follow the same structure as those of other financial and non-financial enterprises. These financial accounts include (a) *income statement* covering income and expenses transactions during the financial year, considered as flow accounts; and (b) *balance sheet* showing the value of assets and liabilities (financial and non-financial) at the end of the financial year, covering stock accounts. In addition, the financial statements include a statement of significant accounting policies and notes to the accounts<sup>25</sup> (*accounting policies and explanatory notes*), which contain important information on accounting methodologies used for recording and reporting transactions, and additional information on the items included in the income statement and balance sheets. More detailed data on the financial statements that is required for national accounts compilation would be available with the central banks.

### 3.3.4. Conceptual issues specific to central banks

The following are some of the characteristic features specific to the central banks (*extracts from 2008 SNA and UN-ECB Handbook on Financial Production, Flows and Stock in SNA, 2014*).

- When the central bank is a separate institutional unit, it is always allocated to the financial corporations sector even if it is primarily a non-market producer and produces collective services.
- If a country does not have a central bank and its functions are carried out by government units, such units are classified under general government sector. They are not allocated to the central bank sub-sector.
- All central bank activities including its commercial banking activities, if any, are classified under “central banks”.
- As far as possible the three broad groups of central bank services, namely, the monetary policy services, financial intermediation and regulatory/supervisory services should be distinguished separately in national accounts owing to the differences in measuring their output.

#### ***Production, output, value added (production account)***

To the extent it is feasible, output of central bank may be estimated separately for its three main functions, as follows:

- Monetary policy services: output is estimated on non-market basis as sum of costs including consumption of fixed capital and other taxes less subsidies on production, as these services are collective in nature, serving the community as a whole and are part of government consumption expenditure.

Output of <i>Monetary policy services</i> of central bank =	Intermediate consumption + Compensation of employees + Consumption of fixed capital + Other taxes (less subsidies) on production
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- Financial intermediation services: If there is no policy intervention in the interest rates charged by the central banks, these services would be treated as market production and the method to calculate their output is the same as the method to calculate FISIM.

<sup>25</sup>These are also sometimes known as ‘footnotes to financial statements’.

FISIM =	$(r_L - rr) * YL + (rr - r_D) * YD$ , where $r_L$ , $r_D$ , $rr$ , $YL$ and $YD$ represent the lending rate, deposit rate, reference rate, average stock of loans and average stock of deposits respectively
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- **Borderline cases, such as supervisory services:** These may be classified as market or non-market services, depending on whether explicit fees charged are sufficient to cover the costs of providing these services. Market output is the value of the explicit fees. Non-market output is estimated as the sum of costs. However, if the fees are not sufficient to cover the supervisory costs incurred by the bank, then the services should be treated as non-market output and part of government consumption expenditure.

Though it is recommended to distinguish market and non-market output of central bank services, in practice the possible resource intensiveness of the exercise and the relative importance of making the distinction should be considered before implementing the conceptual recommendations. In cases where market output is not separated from non-market output, the whole of the output of the central bank should be treated as non-market and valued at the sum of costs.

***Redistribution of income (secondary distribution of income account), use of income (use of disposable income account)***

The non-market output of the central bank should be recorded as collective consumption expenditure by general government. However, the general government does not actually make outlays on the non-market output of the central bank. Therefore, a current transfer equivalent to the value of the non-market output should be recorded as payable by the central bank and receivable by the general government to cover the purchase of the non-market output of the central bank by government. In the SNA, the current transfer is included in miscellaneous current transfers (D75).

Figure 2.1: Costs incurred by the central bank in producing non-market output  
(Assuming no CFC and net other taxes on production)

Item	Value	2008 SNA code
1. Intermediate consumption	90	P1, P2
2. Compensation of employees	360	D1
3. Non-market output of the central bank (1+2)	450	P1, P3, P32, D7, D75

Source: UN-ECB Handbook, 2014, Table 3.30

The collective consumption expenditure represented by the non-market output of the central bank (450) is consumed by the general government. Hence, it is recorded as part of the collective consumption expenditure of the general government in the use of disposable income account. However, this output is not produced by the general government. As a result, there will be a fall in government saving and, hence, net lending/net borrowing. For the central bank, the opposite effects are observed. To remove these effects, a current transfer (450) is also recorded as payable by the central bank to the general government to cover its purchase of the non-market output of the central bank. The current transfer is recorded as part of miscellaneous current transfers in the secondary distribution of income account.

In other words, these transactions are recorded as follows:

- In the production account of financial corporations, under resources, central bank output of (P1) 450 is recorded as non-market output.
- In the secondary distribution of income account of financial corporations, under uses, there will be an entry for other current transfers of (D75) 450.
- In the secondary distribution of income account of general government, under resources, there will be an entry for other current transfers of (D75) 450.
- In the use of income account of general government, under uses, there will be an entry for collective consumption (P32) of 450.
- This treatment has no effect on government saving or net lending/borrowing.

### 3.3.5. Adjustments

Apart from the usual adjustments concerning salaries and wages in kind, consumption of fixed capital, imputed social contributions, etc., central bank accounts also include adjustments when the of following three types of situations are encountered: (i) the central bank is able to dictate below market rates for reserve deposits, (ii), the central bank pays above market rates in a situation where the external value of the currency is under pressure; and (iii) the central bank acts as a development bank offering loans at below market rates to priority industries.

#### ***Case 1: The central bank is able to dictate below market rates for reserve deposits***

If the central bank interest rates are below or above those of commercial banks, FISIM for central bank is estimated using the reference rate and the difference between this amount and the actual amount charged from the commercial banks is treated as implicit taxes or subsidies, respectively. However, taxes and subsidies are only paid to or received from general government. Therefore, suitable re-routing of transactions is necessary.

The following example shown in Tables 3.33 and 3.34 of UN-ECB Handbook, 2014 explains these transactions.

Figure 2.2: SNA treatment of different transactions when central bank pays below market interest rates

Item		Value	2008 SNA Code
1. Average stock of reserve deposits from commercial banks		50,000.0	
2. Interbank interest rate (reference rate) (%)		4.5	
3. Actual interest rate (payable to commercial banks) (%)		3.0	
4. FISIM using the actual and interbank interest rates	$(1)*[(2)-(3)]/100.0$	750.0	
5. SNA interest income payable by the central bank to commercial banks	$(1)*(2)/100.0$	2,250.0	D4, D41
6. Actual interest income payable by the central bank to commercial banks	$(1)*(3)/100.0$	1,500.0	

7. Other taxes on production payable by commercial banks	$(1)*[(2)-(3)]/100.0$	750.0	D2, D29, D7, D75
8. FISIM of the central bank using market interest rates	$(1)*[(2)-(2)]/100.0$	0.0	P1, P2

Source: UN-ECB Handbook, 2014

- In the production account of central bank, under resources, output (which is FISIM) is recorded as 0.0 (item 8).
- In the production account of commercial banks, under uses, the same amount 0.0 (item 8) is recorded as intermediate consumption.
- In the allocation of primary income account of commercial banks, under resources, 2250.0 (item 5) is recorded as SNA interest, though they have actually received only 1500.0 (item 6).
- Therefore, in the generation of income account of commercial banks, under uses, 750.0 (item 7) is recorded as other taxes on production.
- In the allocation of primary income account of general government, under resources, the same amount of 750.0 is recorded under other taxes on production.
- In the secondary distribution of income account of general government, under uses, the same amount of 750.0 is recorded as miscellaneous current transfer.
- In the secondary distribution of income account of central bank, under resources, the same amount of 750.0 is recorded as miscellaneous current transfer.

**Case 2: The central bank pays above market rates when external value of the currency is under pressure**

The following example shown in Tables 3.36 and 3.37 of UN-ECB Handbook (2014) illustrates how the transactions are recorded in SNA.

Figure 2.3: SNA treatment of different transactions when central bank pays above market interest rates

Item		Value	2008 SNA Code
1. Average stock of reserve deposits from commercial banks		50,000.0	
2. Interbank interest rate (reference rate) (%)		4.5	
3. Actual interest rate (payable to commercial banks) (%)		7.0	
4. FISIM using the actual and interbank interest rates	$(1)*[(2)-(3)]/100.0$	-1,250.0	
5. SNA interest income payable by the central bank to commercial banks	$(1)*(2)/100.0$	2,250.0	D4, D41
6. Actual interest income payable by the central bank to commercial banks	$(1)*(3)/100.0$	3,500.0	
7. Other subsidies on production receivable by commercial banks	$(1)*[(3)-(2)]/100.0$	1,250.0	D3, D39, D7, D75

8. FISIM of the central bank using market interest rates	$(1)*[(2)-(2)]/100.0$	0.0	P1, P2
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Source: UN-ECB Handbook, 2014

- In the production account of central bank, under resources, output (which is FISIM) is recorded as 0.0 (item 8).
- In the production account of commercial banks, under uses, the same amount 0.0 (item 8) is recorded as intermediate consumption.
- In the allocation of primary income account of commercial banks, under resources, 2250.0 (item 5) is recorded as SNA interest, though they have actually received 3500.0 (item 6).
- Therefore, in the generation of income account of commercial banks, under uses, - 1250.0 (item 7) is recorded as other subsidies on production (recorded as -1250.0, since the entry is under uses).
- In the allocation of primary income account of general government, under resources, the same amount of -1250.0 is recorded under other subsidies on production.
- In the secondary distribution of income account of central bank, under uses, the same amount of 1250.0 is recorded as miscellaneous current transfer.
- In the secondary distribution of income account of general government, under resources, the same amount of 1250.0 is recorded as miscellaneous current transfer.

**Case 3: The central bank acts as a development bank by offering loans at below market rates to priority industries**

The following example shown in Tables 3.39 and 3.40 of UN-ECB Handbook (2014) illustrates how the transactions are recorded in SNA. It is assumed that the priority industries are in non-financial sector.

Figure 2.4: SNA treatment of different transactions when central bank offers loan at below market interest rates to priority industries

Item		Value	2008 SNA Code
1. Average stock of loans to priority industries (non-financial corporations)		100,000.0	
2. Interbank interest rate (reference rate) (%)		4.5	
3. Actual interest rate (receivable on loans by the central bank to priority industries) (%)		3.0	
4. Market interest rate for loans (%)		5.0	
5. FISIM using the actual interest rate and the interbank interest rate	$(1)*[(3)-(2)]/100.0$	-1,500.0	
6. SNA interest receivable by the central bank from priority industries	$(1)*(2)/100.0$	4,500.0	D4, D41
7. Actual interest receivable by the central bank from priority industries	$(1)*(3)/100.0$	3,000.0	

8. Other subsidies on production receivable by priority industries	$\frac{(1)*[(4)-(3)]}{100.0}$	2,000.0	D3, D39, D7, D75
9. FISIM of the central bank	$\frac{(1)*[(4)-(2)]}{100.0}$	500.0	P1, P2

Source: UN-ECB Handbook, 2014

- In the production account of central bank, under resources, output (which is FISIM) is recorded as 500.0 (item 9).
- In the production account of non-financial corporations, under uses, the same amount 500.0 (item 9) is recorded as intermediate consumption.
- In the allocation of primary income account of non-financial corporations, under uses, SNA interest of 4,500.0 is recorded. The non-financial corporations deemed to have paid 5000.0 (calculated at market interest rate of 5%) interest, split into 4,500.0 as SNA interest (item 6) and 500.0 as FISIM, though they have actually paid 3,000.0 (item 7).
- Therefore, in the generation of income account of non-financial corporations, under uses, - 2,000.0 (item 8) is recorded as other subsidies on production.
- In the allocation of primary income account of general government, under resources, the same amount of -2,000.0 is recorded under other subsidies on production.
- In the secondary distribution of income account of central bank, under uses, the same amount of 2,000.0 is recorded as miscellaneous current transfer.
- In the secondary distribution of income account of general government, under resources, the same amount of 2,000.0 is recorded as miscellaneous current transfer.

### 3.3.6. Bridge table – national accounts from central bank accounts

Central bank accounts comprise income statement, balance sheet and notes to the accounts, just as the case with other financial and non-financial enterprises. Sometimes, the information contained in these accounts that are available in public domain may be too aggregated and insufficient to compile sequence of accounts. In such cases, the national accountants may have to obtain more detailed data in respect of financial statements, from the central bank authorities.

The following table presents the translation of a model financial statement of central bank to national accounts, as well as the sequence of accounts compiled from the accounts of central bank.

Figure 2.5: Simplified bridge table for central bank (S121)

#### A. Income statement of central bank

##### A1. Income

Description	Amount	SNA Transaction
1. Interest received	500	D41
2. Discount	8	P11
3. Exchange gain	40	Financial transaction
4. Commission	11	P11



5. Rent realised	2	D45
6. Profit/loss on sale of bank assets	1	Financial transaction
7. Provision no longer required	3	Financial transaction
<b>8. Total Income</b>	<b>565</b>	

## A2. Expenses

Description	Amount	SNA Transaction
9. Interest payment	5	D41
10. Establishment	59	P13, D11
11. Directors and Local Board members fee	1	P13,P2
12. Remittance of Treasure	2	P13,P2
13. Agency charges	20	P13,P2
14. Security printing	15	P13,P2
15. Printing and stationary	1	P13,P2
16. Postage and telecom charges	2	P13,P2
17. Rent, tax, insurance lighting	3	P13,P2
18. Auditors fee	1	P13,P2
19. Law charges	1	P13,P2
20. Depreciation	2	P13,K1,P51c
21. Repair and maintenance	1	P13,P2
22. Miscellaneous expenses	4	P13,P2
<b>23. Total expenses</b>	<b>117</b>	
24. Surplus payable to Government	330	D42, D421

## B. Balance sheet of central bank (S121)

B1. Liabilities (only flows are shown here)

Description	Amount	SNA Transaction
25. Paid up capital	0	Financial transaction
26. Share premium	0	D9
27. Capital reserve	0	Financial transaction
28. General reserve	300	Financial transaction
29. Other reserve	1	Financial transaction
30. Surplus	0	Financial transaction
31. Capital transfer	0	D9
32. Currency deposits	0	Financial transaction
33. Transferable deposits	-20	Financial transaction
34. Other deposits	40	Financial transaction
35. Bonds, debenture & bills	2	Financial transaction
36. Other accounts payable	500	Financial transaction
<b>Total</b>	<b>823</b>	

B2. Assets (only flows are shown here)

Description	Amount	SNA Transaction
37. Other building	5	P5, P51, P5111
38. Other structure	1	P5, P51, P5111
39. Machinery & equipment	2	P5, P51, P5111
40. Software	1	P5, P51, P5121
41. Land	0	P5, P51, P513
42. Contract, lease & licence	0	P5, P51, P5121
<b>43. Total</b>	<b>9</b>	
44. Depreciation	2	P13,K1,P51c

45. Capital work in progress unallocated	0	P5, P51
46. Net deduction	0	P5113
<b>47. Net fixed assets</b>	<b>7</b>	<b>P51n</b>
48. Govt. Securities	970	Financial transaction
49. Public securities	0	Financial transaction
50. Other securities	0	Financial transaction
51. Public corporate shares	0	Financial transaction
52. Private shares	0	Financial transaction
53. Other shares	0	Financial transaction
54. Material & supplies	0	Financial transaction
55. Currency	0	Financial transaction
56. Transferable deposits	0	Financial transaction
57. Other deposits	0	Financial transaction
58. Loan to Government	100	Financial transaction
59. Loan banks	20	Financial transaction
60. Foreign financial assets	-224	Financial transaction
61. Other accounts payable	-50	Financial transaction
<b>62. Total</b>	<b>823</b>	

Figure 2.6: Sequence of accounts for central bank (S121)

**I: Production account**

Resources		
P.1	Output	112
P.11	Market Output	19
P.12	Output for own final use	
P.13	Non-market output	93
Uses		
P.2	Intermediate Consumption	51
B.1g	Value added, Gross	61
K.1	Consumption of fixed capital	2
B1n	Value added, Net	59

**II.1.1: Generation of income account**

Resources		
B.1g	Gross Value added, Gross (GDP)	61
B1n	Value added, Net (NDP)	59
Uses		
D.1	Compensation of employees(CE)	59
D.11	Wages & Salaries	59
D.12	Employers' social security contribution	
D.121	Employers' actual social security Contribution	
D.122	Employers' imputed social Contribution	
D.2- D.3	Other Taxes Less Subsidies On Production	
B.2g	Operating surplus , Gross	2
B.2n	Operating surplus , Net	0

**II.1.2: Allocation of primary income account**

Resources		
B.2g	Operating surplus , Gross	2
B.2n	Operating surplus , Net	0
D.4	Property Income	500
D.41	Interest	500
D.42	Distributed income of corporations	
D.421	Dividends	
D.44	Investment Income Disbursements	
D.45	Rent	
Uses		
D.4	Property Income	335
D.41	Interest	5
D.42	Distributed income of corporations	

D.421	Dividends	330
D.44	Investment Income Disbursements	
D.45	Rent	
B.5g	Balance of primary incomes, Gross/National Income, Gross	167
B.5n	Balance of primary incomes, Net/National Income, Net	165

## II.2: Secondary distribution of income account

Resources		
B.5g	Balance of primary incomes, Gross	167
B.5n	Balance of primary incomes, Net	165
D.61	Social contributions	
D.62	Social benefits other than social transfers in kind	
D.7	Other current transfers	
Uses		
D.5	Current taxes on income, wealth etc.	
D.51	Taxes on income	
D.59	Other current taxes	
D.61	Social contributions	
D.62	Social benefits other than social transfers in kind	
D.7	Other current transfers	93 <sup>26</sup>
D.71	Net non-life insurance premiums	
D.75	Other current transfers	93
B.6g	Disposable income, Gross	74
B.6n	Disposable income, Net	72

## II.4: Use of income account

Resources		
B.6g	Disposable Income, Gross	74
B.6n	Disposable Income, Net	72
Uses		
B.8g	Saving, Gross	74
B.8n	Saving, Net	72

## III.1: Capital account

Changes in liabilities and net worth		
B.8n	Saving, net	72
D.9	Capital transfers, receivables(+)	
B.10.1	Change in net worth due to saving & capital transfers	72
Changes in assets		

<sup>26</sup> This amount will be a receipt for government as other current transfers and is to be shown as Collective Consumption (P3) of the Government.

P.51	Gross fixed capital formation	9
K.1	Consumption of fixed capital (-)	2
P.52	Change in inventories	0
P.53	Acquisition less disposals of valuables	
K.2	Acquisition less disposal of non-produced non-financial assets	0
D.9	Capital transfers, payable (-)	
B.9	Net lending(+)/Net borrowing(-)	65

### 3.4. Commercial banks (S122)

The commercial banks are classified under the sub-sector S122: Deposit-taking corporations categorised under financial intermediaries in the financial corporations sector. This sub-sector includes, besides the commercial banks, (a) savings banks; (b) post office giro institutions, post banks, giro banks; (c) rural credit banks, agricultural credit banks; (d) cooperative credit banks, credit unions; and (e) specialized banks or other financial corporations (including non-banking financial institutions) if they take deposits or issue close substitutes for deposits. The commercial banks sub-sector is the most important and contributes to a major part of the services provided by the financial corporations sector.

The main activity of banks is financial intermediation. In addition, they also carry out secondary functions such as issue of traveller cheques, bank drafts, credit/debit cards, accepting payments for utilities, etc., from which they derive explicit charges. The major part of income of the banks, however, comes from the financial intermediation services in the form of difference between interest receipts on loans and interest payments on deposits.

The banks do not charge for services they provide in arranging the financial intermediation services to depositors and borrowers. For example, the money paid by a bank on a deposit is described as interest by the bank but is not the amount recorded as interest in the SNA because the amount paid by the bank is assumed to be a compound payment representing interest as understood in the SNA less the service charges levied on the depositor for the costs of operating the account. Therefore, these service charges are estimated indirectly in the SNA.

Since these service charges are estimated indirectly, they are not shown as intermediate consumption or final use by the user industries and sectors. Hence, the service charges of banks estimated indirectly need to be allocated to the sectors/industries, which have availed these financial intermediation services.

Money lenders, pawnshops, microfinance institutions and other types of non-banking financial institutions, which provide financial services (mainly lending) exclusively with own funds are covered under the sub-sector S127: Captive financial institutions and money lenders<sup>27</sup>. Output of these units comprises a combination of the following: a) FISIM and b) Explicit fees.

<sup>27</sup>Captive financial institutions and money lenders consist of institutional units providing financial services, where most of either their assets or liabilities are not transacted on open financial markets. It includes entities transacting within only a limited group of units (such as with subsidiaries) or subsidiaries of the same holding corporation or entities that provide loans from own funds provided by only one sponsor. (para 4.113, 2008 SNA).

### 3.4.1. Concepts and definitions followed in SNA

Commercial banks are deposit-taking corporations that have financial intermediation<sup>28</sup> as their principal activity. These institutions accept deposits and give loans to businesses and consumers, besides providing a number of financial services. They have liabilities in the form of deposits or financial instruments (such as short-term certificates of deposit) that are close substitutes for deposits and assets that include loans.

Financial services provided by banks charge for their services explicitly or implicitly, mainly through: (i) financial services provided in return for explicit charges; and (ii) financial services provided in association with interest<sup>29</sup> charges on loans and deposits. The explicit charges include fees paid for getting a bank draft, commissions charged for services, annual fees for using certain types of banking services, etc. Implicit charges arise from the financial services provided in association with interest charges on loans and deposits and these are described in the SNA as FISIM.

### 3.4.2. Sources of data

In most countries, the functions of commercial banks are regulated by the central bank. As part of compliance to these regulations, banks prepare their financial statements generally in accordance with the standardised structure recommended in IAS<sup>30</sup>/IFRS.

The financial statements of commercial banks that include income account and the balance sheet are the basic sources for compiling SNA sequence of accounts in respect of commercial banks. In addition, the central bank or the regulatory agency collects and consolidates the financial statements of all commercial banks in the context of monetary policy and/or supervisory functions. Moreover, the central bank and/or regulatory agency may also prescribe returns or conduct surveys to collect information on banking activities.

Other possible data sources include surveys or censuses conducted by other government agencies, surveys conducted by private enterprises and industry groups, or the enterprise/establishment surveys of statistical offices in which the information on interest payments and receipts are collected.

The above data sources facilitate compilation of output of commercial banks, the financial services provided in association with deposits and loans, the interest that is to be recorded in the SNA, and allocation of FISIM to user sectors and industries.

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<sup>28</sup>Financial intermediation involves financial risk management and liquidity transformation, activities in which an institutional unit incurs financial liabilities for the purpose of acquiring mainly financial assets. Corporations engaged in these activities obtain funds, not only by taking deposits but also by issuing bills, bonds or other securities. They use these funds as well as own funds to acquire mainly financial assets not only by making advances or loans to others but also by purchasing bills, bonds or other securities.

<sup>29</sup>Interest is a form of income that is receivable by the owners of certain kinds of financial assets, namely: deposits, debt securities, loans and (possibly) other accounts receivable for putting the financial asset at the disposal of another institutional unit.

<sup>30</sup>For details on IAS, please visit the link <http://www.iasplus.com/en/standards/ias>.

### 3.4.3. Structure of accounts

As in the case of non-financial corporations, the financial statements comprise the income statement, balance sheet, cash flow statement and accounting policies and explanatory notes.

The income statement (also termed as profit and loss account) contains details on interest earned, profit/loss on sale of investment, dividends earned, rent, commission/exchange/brokerage/miscellaneous income, gain/loss on exchange, profit/loss on sale of assets, etc. on the income side. On the expenditure side, the details include interest expended, rent, depreciation, repair and maintenance, insurance, other office expenses (printing, advertising, telephone, auditors' fees, etc.), payments to employees, dividends, taxes, transfers to reserves, etc.

The balance sheet contains details on share capital, reserves, profit/loss from income account, deposits (separately for domestic and foreign), borrowings, other liabilities, cash and bank balances, investments in securities and companies (separately within and outside the country), investment in land and fixed assets, depreciation, capital work in progress, construction period expenses, loans and advances to employees, advances for capital work, balances in foreign current accounts, other assets, etc.

The quality of national accounts for banks depends upon the extent of details available in their accounts. More often, the accounts of banks placed in the public domain are too aggregated and further details can only be obtained from the internal records of concerned banks. The national accountants should, therefore, approach all commercial banks (or at least the major banks) in the economy to provide more detailed accounts.

### 3.4.4. Conceptual issues specific to banks

#### ***Financial intermediation services indirectly measured (FISIM)***

One traditional way in which financial services are provided is by means of financial intermediation. This is understood to refer to the process whereby a financial institution such as a bank accepts deposits from units wishing to receive interest on funds for which the unit has no immediate use and lends them to other units whose funds are insufficient to meet their needs. The bank thus provides a mechanism to allow the first unit to lend to the second. Each of the two parties pays a fee to the bank for the service provided, the unit lending funds by accepting a rate of interest lower than that paid by the borrower, the difference being the combined fees implicitly charged by the bank to the depositor and to the borrower.

Therefore, SNA recommends dividing interest transactions with financial corporations between two transaction categories, one showing interest as understood in the SNA and the other representing the implicit payment for financial intermediation services. For this purpose, SNA introduces the concept of a “reference” rate of interest. The difference between the rate paid to banks by borrowers and the reference rate plus the difference between the reference rate and the rate actually paid to depositors represent charges for financial intermediation services indirectly measured (FISIM).

Thus, FISIM is a component of the bank interest<sup>31</sup> receivable by financial corporations on the loans they issue, partly because borrowers are willing to pay more than the SNA interest in order

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<sup>31</sup>The term bank interest is used to indicate the apparent interest as quoted by a financial intermediary to their customer; the term SNA interest is used for the amount recorded in the SNA as interest (that is the level of loans and deposits multiplied by the reference rate chosen).



to utilize the services provided by financial corporations. Likewise, FISIM is one component of the SNA interest payable by financial corporations on the deposits of their customers because the latter are willing to accept lower bank interest payments on their deposits in order to receive the services provided by financial corporations.

For clarity, the amounts based on the *reference rate* recorded in the SNA as interest are described as “*SNA interest*” and the total amounts actually paid to or by the financial institution are described as “*bank interest*”. The implicit service charge is thus the sum of the bank interest on loans less the SNA interest on the same loans plus the SNA interest on deposits less the bank interest on the same deposits.

Implicit service charge of banks or financial intermediation services indirectly measured (FISIM)	Service charge on loans (= <i>bank interest</i> on loans - <i>SNA interest</i> on the same loans) + Service charge on deposits (= <i>SNA interest</i> on deposits - <i>bank interest</i> on the same deposits)
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Some important points to note in this context are:

- FISIM applies only to loans and deposits and only when those loans and deposits are provided by, or deposited with, financial institutions.
- FISIM needs to be imputed in respect of all loans and deposits offered by a financial institution, irrespective of the source of funds.
- No exclusion is made for lending of own funds. Although the act of lending, and the charging of SNA interest is not a productive activity, there is a service charge associated with lending.
- Even when a loan is described as non-performing, interest and the associated service charge continue to be recorded in the SNA.
- The types of loans to be included in the calculation of FISIM include the amount overdrawn on overdrafts, instalment loans, hire-purchase credit, revolving credit, loans to finance trade credit and mortgage loans. Securities repurchase agreements, gold swaps and financing by means of a financial lease may also be classified as loans.
- The types of deposits to be included in FISIM include transferable deposits and other deposits, which typically include savings deposits, fixed-term deposits, non-negotiable certificates of deposit, deposits of limited transferability, and overnight and very short-term repurchase agreements if they are considered part of the definition of broad money. Shares or similar evidence of deposit issued by savings and loan associations, building societies, credit unions and the like, as well as repayable margin payments in cash related to financial derivative contracts, are also included.
- For banks within the same economy, there is often little, if any, service provided in association with banks lending to and borrowing from other banks.
- Cash transactions carried through mobile phones are not included here, as such transactions are only a means of paying for goods and services.

### **Reference rate**

The reference rate to be used in the calculation of SNA interest is a rate between bank interest rates on deposits and loans. The reference rate should contain no service element and reflect the risk and maturity structure of deposits and loans. Choices of reference rate:

- 1) If the absolute value of the effect on the average rate payable to depositors of the FISIM provided to depositors equals the effect on the average rate receivable from borrowers of the

FISIM provided to borrowers, then a simple way to obtain a reference rate that reflects the maturity structure of the financial assets and liabilities is to calculate the simple average of the ratio of interest receivable on loans to the stock of loans and ratio of interest payable on deposits to the stock of deposits.

Reference rate (based on average interest rates on deposits and loans)	Average (interest receivable on loans/stock of loans + interest payable on deposits/stock of deposits)
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- 2) The reference rate may also be calculated as a weighted average of the interest rates on loans and deposits using the following. Total interests (paid and received)/total stock of loans and deposits. This approach is known as the endogenous reference rate approach and is probably more suitable for countries with less detailed data.

Reference rate (based on weighted average interest rates on deposits and loans)	Total interests (paid and received)/total stock of loans and deposits
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- 3) Instead of using endogenous interest rates on loans and deposits, reference rate can also be calculated as the weighted average of observable exogenous rates of maturities with different terms (weighted by the stock of loans and deposits in each maturity).
- 4) The rate prevailing for interbank borrowing and lending may be another suitable choice as a reference rate, although this may not exactly reflect the risk and maturity structure of deposits and loans, since the rate only reflects short-term lending and borrowing.
- 5) Other potential reference rate candidates include the rate on service-free financial instruments such as government bonds.

Reference rates for deposits and loans with non-residents and/or non-resident banks, can also be computed using the above guidelines, using the data on interest payments, interest earnings, stock of deposits and stock of loans in respect of these transactions. If the data on all these transactions is available in different foreign currency units, they would need to be converted to local currency units before calculating the reference rates and FISIM. Reference rate of foreign countries with which the financial intermediary transactions are made, can also be considered as the reference rate for such transactions.

The reference rate calculated according to 1) above is mostly used by developing countries. For those institutions which provide loans from own sources (money lenders, micro-finance institutions and other types of non-banking financial institutions) the reference rate may be assumed to be the domestic reference rate.

### ***Estimating FISIM and output of banks***

Output of banks includes explicit charges and the FISIM, which is estimated indirectly from the bank interest using reference rates. Output comprises a combination of the following: (i) explicit fees charged in lieu of providing services; and (ii) financial intermediation services indirectly measured (FISIM), which is calculated as  $(rL - rr) * YL + (rr - rD) * YD$ , where  $rL$ ,  $rD$ ,  $rr$ ,  $YL$  and  $YD$  represent the lending rate, deposit rate, reference rate, average stock of loans and average stock of deposits respectively. An example of calculating reference rate and FISIM is presented below.

Figure 2.7: Data on the interest receivable on loans and interest payable on deposits offered by resident deposit-taking corporations

No	Item	Value	SNA transactions
1	Interest receivable on loans	150.10	
2	Interest payable on deposits	62.90	

No	Item	Value	SNA transactions
3	Stock of loans granted on 1 January	1809.00	
4	Stock of deposits held on 1 January	1127.00	
5	Stock of loans granted on 31 December	1893.00	
6	Stock of deposits held on 31 December	1155.00	
7	<b>Average stock of loans granted (average of 3 and 5)</b>	<b>1851.00</b>	
8	Average stock of deposits held (average of 4 and 6)	1141.00	
9	Change in loans granted (5-3)	84.00	<b>Financial account</b>
10	Change in deposits held (6-4)	28.00	
11	<b>Average interest rate on loans (1/7)</b>	<b>8.11</b>	
12	Average interest rate on deposits (2/8)	5.51	
13	Reference rate (average of 11 and 12)	6.81	
14	<b>SNA interest on loans (7*13)</b>	<b>126.07</b>	<b>D4,D41</b>
15	SNA interest on deposits (8*13)	77.71	<b>D4,D41</b>
16	<b>FISIM on loans (1-14)</b>	<b>24.03</b>	
17	FISIM on deposits (15-2)	14.81	
18	<b>FISIM (16+17)</b>	<b>38.84</b>	<b>P1</b>
19	<b>SNA interest (14+15)</b>	<b>203.78</b>	

Source: UN-ECB Handbook, 2014 Tables 3.2 to 3.8

The above transactions are recorded in SNA as follows:

- a) The output of deposit-taking corporations is 38.84. This comprises FISIM on loans (24.03) and on deposits (14.81). The output is recorded in the production account of the deposit-taking corporations.
- b) The interest recorded in the allocation of primary income account represents SNA interest (203.78) rather than bank interest, with 126.07 shown under resources and 77.71 shown under uses.

The calculated value of FISIM may be negative, due to use of inappropriate reference rates or other reasons. This gives rise to interpretation problems, as it is not possible for output to be negative. The national accountants may need to review the applicability of the underlying reference rate for that period to calculate FISIM when such incidences occur.

### **Back-casting of FISIM**

Back-casting of FISIM for the previous years can be a challenging task. An option could be using the splicing method with the imputed bank charges previously estimated. If such data was not previously computed, the ratio of FISIM to the total stock of deposits and loans in the benchmark year may be treated as constant and the same may be applied on the previous years' total stock of deposits and loans. However, depending on the country situation, and the overall guidelines provided in SNA on back-casting, countries may adopt the best possible method for back-casting FISIM estimates. The UN proposes to bring out a *Handbook on National Accounting Back-casting Methodology*, which could provide guidelines on the back-casting of financial sector data.

### ***Allocating FISIM to sectors/industries***

The 2008 SNA recommends that the output and supply of FISIM should be distributed to users across the institutional sectors. This includes the rest of the world, given that the financial institutions which provide FISIM need not be resident. Allocation to resident institutional units will allow the use of FISIM to be classified as intermediate or final consumption, while allocation to the rest of the world is included in exports of services. The distinction between intermediate and final consumption will depend on the purpose for which the institutional sector is consuming the service. Intermediate consumption is incurred by corporations, general government, households (in their role as owners of dwellings and unincorporated enterprises) and NPISHs. Allocation of FISIM to intermediate consumption of institutional sectors will also need to be broken down into the respective industries so as to properly account for their value added.

Depending on the nature of the source data, the national accountants can consider two approaches to allocate FISIM and related transactions to sectors. The first approach can be described as the “bottom-up” approach. This approach assumes that the data on interest receivable on loans, interest payable on deposits and stocks of loans and deposits *by institutional sector* (including the rest of the world) is available. Thus, it can directly compute the FISIM and SNA interest on loans and deposits to be allocated to each sector. These transactions are then summed up to obtain the economy-wide estimates. However, while doing so, careful distinction should be made for households between those as owners of dwellings, unincorporated enterprises and consumer households, since the allocation to former two refer to intermediate consumption (to be recorded in production account of sectors on the use side) and the allocation to the later refers to final consumption expenditure (to be recorded in the use of income account of households on the use side).

However, it is likely that the input data may only be available without a sectoral breakdown, especially in the case of developing countries. Consequently, the national accountants may need to consider the use of the second approach, which can be described as the “top-down” approach. In this approach, firstly the total FISIM, SNA interest and bank interest on loans and deposits are calculated using the available data from the source agencies (as illustrated in the above table). Secondly, the calculated data is allocated to user sectors using various indicators such as loan/deposit balances or interest receivable/payable. Such information may be available from various sources such as business accounts, government accounts, enterprise and household surveys.

Further, resident institutional units are also likely to be clients of non-resident deposit-taking corporations. Estimates of the total imports of FISIM, SNA interest and bank interest on loans and deposits can be obtained directly from balance of payments statistics or through estimation techniques. These estimates then need to be allocated to the resident institutional sectors. This may be done either through information available from surveys and administrative data or using various assumptions, for example, allocating the data in proportion to the sectoral data on stocks of loans and deposits of resident deposit taking corporations.

The allocation of FISIM to the intermediate consumption expenditure of these institutional units will also need to be broken down into the respective industries so as to properly account for their value added.

It is unlikely that the input data to calculate FISIM and SNA interest by industry will be available at the industry level. Thus, it may not be possible to directly compute the FISIM and SNA interest for each industry using the “bottom-up” approach. Instead, the compiling agency will need to allocate the intermediate consumption of domestically produced FISIM to industries using the “top-down” approach using indicators such as the shares of the stocks of loans and deposits, gross value added, or the output of each industry. Generally, banks or the central bank maintain information on stock of deposits and loans disaggregated by industries and for sectors including consumer households. Another source for indicators to allocate FISIM could be the various household and enterprise/establishment surveys conducted by the statistical offices and the administrative data such as business and government accounts. Generally, information on stock of loans and deposits and interest received and paid is available in these sources.

Alternatively, other methods, such as the shares of gross value added or the output of each industry group may be considered to carry out the allocation if it is assessed that these methods will provide more reliable results. These methods are more suitable for distributing FISIM to the sub-industries in each broad industry group, since information on loans and deposits and corresponding interest receipts and payments may not be maintained or available at that level.

In addition to the FISIM, explicit fees should always be recorded as payable by the unit to whom the services are rendered to the institution performing the service. If the services are rendered to a corporation, government or non-profit institution serving households (NPISHs), the costs will form part of intermediate consumption. If they are rendered to households, they will be treated as final consumption unless the financial service is performed in relation to an unincorporated enterprise, including the owning and occupying of a dwelling. If they are rendered to non-residents, they will be treated as exports of goods and services. The explicit fees payable by resident institutional units to non-resident financial institutions for the financial services they provide are included in total imports of goods and services. The estimates of these explicit fees can be obtained directly from balance of payments statistics.

### 3.4.5. Bridge table – national accounts from banks’ accounts

The information provided in the administrative data of banks in the form of financial statements, facilitates compilation of national accounts variables and sequence of accounts, as illustrated in the following three examples.

#### **Example 1**

The information available in Figure 2.7 above has been used to compile SNA sequence of accounts, presented below:

Figure 2.8: Sequence of accounts from data presented in Figure 2.7

#### **I: Production account**

Resources	
P.1 Output	38.84
Uses	
P.2 Intermediate consumption	0.00
<b>B.1g Value added, gross</b>	<b>38.84</b>
K.1 Consumption of fixed capital	0.00

<b>B.1n Value added, net</b>	<b>38.84</b>
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### II.1.1: Generation of income account

Resources	
<b>B.1n Value added, net</b>	<b>38.84</b>
<b>B.1g Value added, gross</b>	<b>38.84</b>
Uses	
D.1 Compensation of employees	0.00
D.11 Wages and salaries	0.00
D.12 Employers' social contributions	0.00
D.29 Other taxes on production	0.00
D.39 Other subsidies on production	0.00
<b>B.2 Operating surplus, net</b>	<b>38.84</b>
<b>B.2 Operating surplus, gross</b>	<b>38.84</b>

### II.1.2: Allocation of primary income account

Resources	
<b>B.2 Operating surplus, net</b>	<b>38.84</b>
D.4 Property income	126.07
D.41 Interest	126.07
D.42 Distributed income of corporations	0.00
D.421 Dividends	0.00
D.422 Withdrawals from income of quasi-corporations	0.00
D.43 Reinvested earnings on direct foreign investment	0.00
D.44 Property income attributed to insurance policyholders	0.00
D.45 Rent	0.00
Uses	
D.4 Property income	77.71
D.41 Interest	77.71
D.42 Distributed income of corporations	0.00
D.421 Dividends	0.00
D.422 Withdrawals from income of quasi-corporations	0.00
D.43 Reinvested earnings on direct foreign investment	0.00
D.44 Property income attributed to insurance policyholders	0.00
D.45 Rent	0.00
<b>B.5 Balance of primary incomes</b>	<b>87.20</b>

### II.2: Secondary distribution of income account

Resources	
<b>B.5 Balance of primary incomes</b>	<b>87.20</b>
D.61 Social contributions	0.00
D.611 Actual social contributions	

D.612 Imputed social contributions	
D.7 Other current transfers	0.00
D.71 Net non-life insurance premiums	0.00
D.72 Non-life insurance claims	0.00
D.75 Miscellaneous current transfers	0.00
Uses	
D.5 Current taxes on income, wealth, etc.	0.00
D.51 Taxes on income	0.00
D.59 Other current taxes	0.00
D.62 Social benefits other than social transfers in kind	0.00
D.7 Other current transfers	0.00
D.71 Net non-life insurance premiums	0.00
D.72 Non-life insurance claims	0.00
D.75 Miscellaneous current transfers	0.00
B.6 Disposable income	87.20

#### II.4.1: Use of disposable income account

Resources	
B.6 Disposable income	87.20
Uses	
D.8 Adjustment for the change in net equity of households on pension funds	0.00
B.8 Saving	87.20

#### III.1: Capital account

Changes in liabilities and net worth	
B.8 Saving, net	87.20
D.9 Capital transfers, receivable	0.00
D.9 Capital transfers, payable	0.00
Changes in assets	
P.51 Gross fixed capital formation	0.00
P.511 Acquisitions less disposals of tangible fixed assets	0.00
P.512 Acquisitions less disposals of intangible fixed assets	0.00
P.513 Additions to the value of non-produced non-financial assets	0.00
K.1 Consumption of fixed capital	0.00
P.52 Changes in inventories	0.00
P.53 Acquisitions less disposals of valuables	0.00
K.2 Acquisitions less disposals of non-produced non-financial assets	0.00
B.9 Net lending (+) / net borrowing (–)	87.20



### Example 2

The sequence of accounts compiled in respect of a model financial statement of banks given in Chapter 5 of the Eurostat Handbook (2013) is presented below.

Figure 2.9: Simplified bridge table for banking institutions

No.	Items from accounting statements	Value	SNA transactions
1	Stock of loans (asset) (Average for the year)	4,378,889	
2	Stock of deposits (liability) (Average for the year)	5,152,500	
3	Interest receivable (on loans) and similar income	78,820	D4
4	Dividend income	4,870	D4
5	Interest payable (on deposits) and similar expenses	61,830	D4
6	Income from fees charged	10,950	P1
7	Expenses with fees paid	2,980	P2
8	Personnel expenses, of which		D1
9	• Wages and salaries	7,740	D11
10	• Social security costs	3,110	D121
11	• Pension costs	2,500	D121
12	• Post-employment medical benefits	10	D122
13	General and administrative expenses	10,480	P2
14	Depreciation	3,550	K2
15	Other operating expenses (local taxes)	219	D29

Source: Eurostat handbook (2013) Table 5.3

Calculations from the data provided in the above table:

16	Average interest rate on loans (3/1*100)	1.80	
17	Average interest rate on deposits (5/2*100)	1.20	
18	Reference rate (Average of 16,17)	1.50	
19	<b>SNA interest on loans (18*1/100)</b>	<b>65,683</b>	<b>D4,D41</b>
20	SNA interest on deposits (18*2/100)	77,287	D4,D41
21	<b>FISIM on loans (3-19)</b>	<b>13,137</b>	<b>P1</b>
22	FISIM on deposits (20-5)	15,457	P1
23	FISIM (21+22)	28,594	P1
24	SNA interest (19+20)	142,971	
25	Output of banks (23+6)	39,544	P1
26	Intermediate consumption (7+13)	13,460	P2
27	Gross value added (25-26)	26,084	
28	compensation of employees (9+10+11+12)	13,360	D1
29	consumption of fixed capital (14)	3,550	K1
30	other taxes on production (15)	219	D29



31	net operating surplus (27-28-29-30)	8,955	
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Figure 2.10: Sequence of accounts compiled from Figure 2.9

I: Production account

Resources	
P.1 Output	39,544
Uses	
P.2 Intermediate consumption	13,460
<b>B.1g Value added, gross</b>	<b>26,084</b>
K.1 Consumption of fixed capital	3,550
<b>B.1n Value added, net</b>	<b>22,534</b>

II.1.1: Generation of income account

Resources	
<b>B.1n Value added, net</b>	<b>22,534</b>
<b>B.1g Value added, gross</b>	<b>26,084</b>
Uses	
D.1 Compensation of employees	13,360
D.11 Wages and salaries	7,740
D.12 Employers' social contributions	5,620
D.29 Other taxes on production	219
D.39 Other subsidies on production	0
<b>B.2 Operating surplus, net</b>	<b>8,955</b>
<b>B.2 Operating surplus, gross</b>	<b>12,505</b>

II.1.2: Allocation of primary income account

Resources	
<b>B.2 Operating surplus, net</b>	<b>8,955</b>
D.4 Property income	70,553
D.41 Interest	65,683
D.42 Distributed income of corporations	4,870
D.421 Dividends	4,870
D.422 Withdrawals from income of quasi-corporations	
D.43 Reinvested earnings on direct foreign investment	
D.44 Property income attributed to insurance policyholders	
D.45 Rent	
Uses	
D.4 Property income	77,287
D.41 Interest	77,287
D.42 Distributed income of corporations	
D.421 Dividends	

D.422 Withdrawals from income of quasi-corporations	
D.43 Reinvested earnings on direct foreign investment	
D.44 Property income attributed to insurance policyholders	
D.45 Rent	
B.5 Balance of primary incomes	2,221

## II.2: Secondary distribution of income account

Resources	
B.5 Balance of primary incomes	2,221
D.61 Social contributions	
D.611 Actual social contributions	
D.612 Imputed social contributions	
D.7 Other current transfers	
D.71 Net non-life insurance premiums	
D.72 Non-life insurance claims	
D.75 Miscellaneous current transfers	
Uses	
D.5 Current taxes on income, wealth, etc.	
D.51 Taxes on income	
D.59 Other current taxes	
D.62 Social benefits other than social transfers in kind	
D.7 Other current transfers	
D.71 Net non-life insurance premiums	
D.72 Non-life insurance claims	
D.75 Miscellaneous current transfers	
B.6 Disposable income	2,221

## II.4.1: Use of disposable income account

Resources	
B.6 Disposable income	2,221
Uses	
D.8 Adjustment for the change in net equity of households on pension funds	0
B.8 Saving	2,221

## III.1: Capital account

Changes in liabilities and net worth	
B.8n Saving, net	2,221
D.9 Capital transfers, receivable	0
D.9 Capital transfers, payable	0
Changes in assets	
P.51 Gross fixed capital formation	0
P.511 Acquisitions less disposals of tangible fixed assets	0

P.512 Acquisitions less disposals of intangible fixed assets	0
P.513 Additions to the value of non-produced non-financial assets	0
K.1 Consumption of fixed capital	3,550
P.52 Changes in inventories	0
P.53 Acquisitions less disposals of valuables	0
K.2 Acquisitions less disposals of non-produced non-financial assets	0
B.9 Net lending (+) / net borrowing (–)	5,771

### ***Example 3***

The next example presents sequence of accounts compiled from a set of income statement and balance sheet for a bank. The data included is notional.

Figure 2.11: Annual financial statements of a bank

**A. Income Statement of a bank**

	Value	SNA transactions
<b>A1. Income</b>		
<b>1. Interest income, of which</b>	<b>1,348</b>	<b>D41</b>
• Interest on loans	1,020	FISIM, P1, D41
• Income on investments	306	D41
• Interest on balances with central bank	6	D41
• Others	15	D41
<b>2. Other income, of which</b>	<b>181</b>	
• Commission, exchange and brokerage	129	P1
• Profit on sale of investment	12	D421
• Loss on sale of investment	0	-D421
• Profit on revaluation of investment	0	D421
• Loss on revaluation of investment/amortisation	0	-D421
• Profit on sale land , buildings and other assets	0	P51
• Loss on sale land , buildings and other assets	1	-P51
• Profit on exchange transactions	19	P1
• Loss on exchange transactions	0	-P1
• Income earned by way of dividends	8	D421
• Miscellaneous income	12	P1
• Rent	1	D45
<b>A2. Expenses</b>		
<b>3. Interest expenses, of which</b>	<b>848</b>	
• Interest on deposits	760	FISIM, P1, D41
• Interest on inter-bank/central bank borrowings & others	46	D41
• Others	42	D41

<b>4. Operating expenses, of which</b>	<b>331</b>	
• Payment to and provision for employees	207	D11
• Rent, taxes & lighting	27	D45
• Printing & stationary	3	P2
• Advertisement & publicity	4	P2
• Depreciation/amortisation on banks property	13	K1
• Director's fees	1	P2
• Auditor's fees	1	P2
• Law charges	2	P2
• Postage, telegram & telephone	6	P2
• Repair & maintenance	4	P2
• Insurance	14	P2/D71
• Other expenditure	48	P2
<b>Provision and contingencies</b>	<b>191</b>	Not an SNA item <sup>32</sup>

<sup>32</sup>Provisions for bad debt are treated as bookkeeping entries that are internal to the enterprise and do not appear in the SNA except in the case of expected losses on nonperforming loans, which appear as memorandum items in the balance sheets. The unilateral repudiation of debt by a debtor is also not a transaction and is not recognized in the SNA.

## B. Balance sheet of the bank

	Opening	Closing	Flows	
<b>LIABILITIES, of which</b>	<b>15,040</b>	<b>17,639</b>	<b>2,599</b>	
<b>5. Capital</b>	<b>8</b>	<b>8</b>	<b>0</b>	
• Capital issued, subscribed & paid	8	8	0	Financial transaction
• Share application money				Financial transaction
<b>6. Reserves and surplus</b>	<b>938</b>	<b>1,106</b>	<b>168</b>	
• Statutory reserve	406	456	50	
• Capital reserve	17	17	0	
• Revaluation reserve				
• Others reserve	194	278	84	
• Share premium	321	355	34	
• Investment reserve				
• Exchange fluctuation				
• Other special reserve				
• Deferred tax reserve				
<b>7. Deposits</b>	<b>11,753</b>	<b>13,545</b>	<b>1,792</b>	
• Demand deposits				
o From banks	78	83	4	Financial transaction
o From others	1,030	1,186	156	Financial transaction
o Saving bank deposits	4,157	4,802	644	Financial transaction
• Term deposits				Financial transaction
o From banks	196	314	118	Financial transaction
o From others	6,291	7,160	869	Financial transaction
• Deposits of branches in the economy	11,061	12,727	1,666	
• Deposits of branches abroad	692	818	126	
<b>8. Borrowings</b>	<b>1,430</b>	<b>1,905</b>	<b>475</b>	

• Borrowings in the economy				
o Borrowing from the central bank	0	163	163	Financial transaction
o Other banks	57	64	7	Financial transaction
o Others institutions & agencies	43	55	12	Financial transaction
o Innovative perpetual debt instruments	24	24	0	Financial transaction
o Perpetual cumulative preference shares				Financial transaction
o Subordinated debts	390	390	0	Financial transaction
• Borrowings outside the economy	916	1,209	293	Financial transaction
<b>9. Other liabilities</b>	<b>911</b>	<b>1,075</b>	<b>164</b>	
• Bills payable	231	222	-9	Financial transaction
• Inter office adjustments	0	185	185	Financial transaction
• Interest accrued	121	150	29	Financial transaction
• Deferred tax	0	7	7	Financial transaction
• Others including provision	559	512	-48	Financial transaction

	Opening	Closing	Flows	
<b>ASSETS, of which</b>	15,040	17,639	2,599	
<b>10. Cash and bank balances</b>	<b>609</b>	<b>741</b>	<b>132</b>	Financial transaction
• Currency	126	130	4	Financial transaction
• Transferable deposits	483	611	128	Financial transaction
• Other deposits				Financial transaction
<b>11. Balances with banks and money at short and call notice</b>	<b>485</b>	<b>552</b>	<b>66</b>	
<u>In the economy</u>				
• Balances with bank				
o In current account	9	7	-2	Financial transaction
o In other deposit account	43	34	-9	Financial transaction
• Money at call and short notice				

o With banks	68	81	13	Financial transaction
o With other institutions				Financial transaction
Outside the economy				
• In current account	266	291	24	
• In other deposit accounts	5	49	44	
Money at call and short notice	94	90	-4	
<b>12. Investments, of which</b>	<b>3,516</b>	<b>3,952</b>	<b>436</b>	
• Government securities	2,902	3,065	162	Financial transaction
• Public corporations securities	146	327	181	Financial transaction
• Private corporations securities				Financial transaction
• Other corporations securities	87	70	-17	Financial transaction
• Public corporations				Financial transaction
• Private corporations				Financial transaction
• Other corporations	380	490	110	Financial transaction
• Investments outside the economy				
<b>13. Fixed assets, of which</b>	<b>62</b>	<b>79</b>	<b>17</b>	
• Land				P5, P51, P513
• Premises	24	32	8	P5111
• Revalued cost of assets				
• Office equipment	133	153	20	P5111
• Lease & transferable contract				P5, P51, P5121
• Computer software				P5, P51, P5121
• Total	158	185	28	
• Depreciation	100	111	11	K1, P51c
• Revalued depreciation				
• Net fixed assets	58	74	16	
• Work in progress	4	5	1	AN11, P5111



<b>14. Loans and advances, of which</b>	<b>9,770</b>	<b>11,775</b>	<b>2,005</b>	
• Bills purchased and discounted	869	999	130	Financial transaction
• Cash credits, overdraft & loans repayable on demand	4,214	5,242	1,028	Financial transaction
• Term loan	4,688	5,535	847	Financial transaction
<b>15. Other assets, of which</b>	<b>598</b>	<b>539</b>	<b>-58</b>	
• Inter office adjustments	18	0	-18	Financial transaction
• Interest	124	136	12	Financial transaction
• Tax paid in advance	93	60	-33	Financial transaction
• Stationary and stamps	1	1	1	P52
• Non-banking assets acquired in satisfaction of claim				Financial transaction
• Deferred tax assets	2	0	-2	Financial transaction
• Others	360	342	-18	Financial transaction
<b>16. Appropriation, of which</b>				
Balance brought forward from previous year				
Transfer from other reserve				
Transfer to				
Statutory reserve			50	
Capital reserve			1	
Revenue and other reserve			73	
Corporate social responsibility fund			0	
Final dividend proposed			32	D421
Tax on dividend			4	D51
Interim dividend			0	D421
Tax on interim dividend			0	D51
Balance carried to balance sheet			0	

Figure 2.12: Intermediate set of tables compiled from the above financial statements

No.	Items from accounting statements	Value
1	Stock of loans (asset) (Average for the year) (14)	10,773
2	Stock of deposits (liability) (Average for the year) (7)	12,649
3	Interest receivable (on loans) and similar income	1,020
4	Dividend income	8
5	Interest payable (on deposits) and similar expenses	760
6	Income from fees charged, profit on exchange transactions	160
7	Expenses with fees paid	83

8	Personnel expenses, of which	207
9	Wages and salaries	207
10	Social security costs	
11	Pension costs	
12	Post-employment medical benefits	
13	General and administrative expenses	
14	Depreciation	13
15	Other operating expenses (local taxes)	
<b>16</b>	<b>Average interest rate on loans</b>	<b>9.47</b>
17	Average interest rate on deposits	6.01
18	Reference rate	7.74
<b>19</b>	<b>SNA interest on loans</b>	<b>834</b>
20	SNA interest on deposits	979
<b>21</b>	<b>FISIM on loans</b>	<b>186</b>
22	FISIM on deposits	219
23	FISIM	405
24	SNA interest	1,813
25	Output of banks	565
26	Intermediate consumption	83
27	Gross value added	482
28	compensation of employees	207
29	consumption of fixed capital	13
30	other taxes on production	0
31	net operating surplus	262

Figure 2.13: Sequence of accounts compiled from the above financial statements

### I: Production account

Resources	
P.1 Output	565
Explicit income	160
FISIM	405
FISIM on loans	186
FISIM on deposits	219
Uses	
P.2 Intermediate consumption	83
<b>B.1g Value added, gross</b>	<b>482</b>
K.1 Consumption of fixed capital	13
<b>B.1n Value added, net</b>	<b>469</b>

### II.1.1: Generation of income account

Resources	
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<b>B.1n Value added, net</b>	<b>469</b>
<b>B.1g Value added, gross</b>	<b>482</b>
<b>Uses</b>	
D.1 Compensation of employees	207
D.11 Wages and salaries	207
D.12 Employers' social contributions	0
D.29 Other taxes on production	0
D.39 Other subsidies on production	0
<b>B.2 Operating surplus, net</b>	<b>262</b>
<b>B.2 Operating surplus, gross</b>	<b>275</b>

## II.1.2: Allocation of primary income account

<b>Resources</b>	
<b>B.2 Operating surplus, net</b>	<b>262</b>
D.4 Property income	1182
D.41 Interest	1162
D.42 Distributed income of corporations	20
D.421 Dividends	20
D.422 Withdrawals from income of quasi-corporations	0
D.43 Reinvested earnings on direct foreign investment	0
D.44 Property income attributed to insurance policyholders	0
D.45 Rent	1
<b>Uses</b>	
D.4 Property income	1,126
D.41 Interest	1,067
D.42 Distributed income of corporations	32
D.421 Dividends	32
D.422 Withdrawals from income of quasi-corporations	0
D.43 Reinvested earnings on direct foreign investment	0
D.44 Property income attributed to insurance policyholders	0
D.45 Rent	27
<b>B.5 Balance of primary incomes</b>	<b>318</b>

## II.2: Secondary distribution of income account

<b>Resources</b>	
<b>B.5 Balance of primary incomes</b>	<b>318</b>
D.61 Social contributions	0
D.611 Actual social contributions	
D.612 Imputed social contributions	
D.7 Other current transfers	0
D.71 Net non-life insurance premiums	0

D.72 Non-life insurance claims	0
D.75 Miscellaneous current transfers	0
Uses	
D.5 Current taxes on income, wealth, etc.	4
D.51 Taxes on income	4
D.59 Other current taxes	0
D.62 Social benefits other than social transfers in kind	0
D.7 Other current transfers	0
D.71 Net non-life insurance premiums	0
D.72 Non-life insurance claims	0
D.75 Miscellaneous current transfers	0
B.6 Disposable income	314

#### II.4.1: Use of disposable income account

Resources	
B.6 Disposable income	314
Uses	
D.8 Adjustment for the change in net equity of households on pension funds	0
B.8 Saving	314

#### III.1: Capital account

Changes in liabilities and net worth	
B.8n Saving, net	314
D.9 Capital transfers, receivable	0
D.9 Capital transfers, payable	0
Changes in assets	
P.51 Gross fixed capital formation	30
P.511 Acquisitions less disposals of tangible fixed assets	30
P.512 Acquisitions less disposals of intangible fixed assets	0
P.513 Additions to the value of non-produced non-financial assets	0
K.1 Consumption of fixed capital	13
P.52 Changes in inventories	1
P.53 Acquisitions less disposals of valuables	0
K.2 Acquisitions less disposals of non-produced non-financial assets	0
B.9 Net lending (+) / net borrowing (–)	296

### 3.5. Insurance corporations

Insurance schemes provide individual institutional units exposed to certain risks with financial protection against the consequences of the occurrence of specified events. This financial protection is provided by insurance corporations in the form of an insurance policy. At its simplest, an insurance policy is an agreement between an insurance corporation and another institutional unit, called the policyholder. Under the agreement, the policyholder makes a

payment (a premium) to the insurance corporation and, if or when the specified event occurs, the insurance corporation makes a payment (claim in the case of non-life insurance and benefit in the case of life insurance) to the policyholder. In this way, the policyholder protects itself against certain forms of risk. On the other hand, by pooling the risks of the policy holders, the insurance corporation aims to receive more from the receipt of premiums than it has to pay out as claims. In addition, insurers often act as financial intermediaries who invest funds collected from policyholders in financial or other assets to meet future claims.

There are two types of insurance, namely, *direct insurance* and *reinsurance*.

*Direct insurance* is the most common form of insurance. In this type of insurance, policy is issued by an insurance corporation to another type of institutional unit. Both life and non-life insurance are in this category.

The other type of insurance called *reinsurance* is provided by one insurance corporation to another insurance corporation. Sometimes, reinsurers take out reinsurance policies with other insurance corporations to spread their risks further. This sort of reinsurance is called *retrocession*.

The institutional units involved in direct insurance and reinsurance are pre-eminently *insurance corporations*. Though it is possible for other enterprises to carry out insurance as a non-principal activity, the legal regulations on the conduct of insurance demand enterprises to keep a separate set of accounts for insurance activities. This leads to identifying a separate institutional unit in the SNA, classified to the insurance corporations. Therefore, for practical purposes, it is assumed that all insurance is carried out by insurance corporations, either resident or non-resident.

### **3.5.1. Concepts and definitions**

Insurance corporations consist of incorporated, mutual and other entities whose principal function is to provide life, accident, sickness, fire or other forms of insurance to individual institutional units or groups of units or reinsurance services to other insurance corporations. Captive insurance is included, that is, an insurance company that serves only its owners. Deposit insurers, issuers of deposit guarantees and other issuers of standardized guarantees that are separate entities and act like insurers by charging premiums and have reserves, are classified as insurance corporations. Insurance corporations provide services of direct insurance, which includes life and non-life insurance; and reinsurance. These are further explained below.

#### ***Life insurance***

Life insurance is an activity whereby a policyholder makes regular payments to an insurer in return for which the insurer guarantees to provide the policyholder (or in some cases another nominated person) with an agreed sum, or an annuity, at a given date or earlier if the policyholder dies beforehand.

There is little conditionality involved in life insurance, usually the fact that a payment will be made is certain but the amount may be uncertain. Annuities are offered by insurance corporations and are a means for an individual person to convert a lump sum into a stream of payments in the future. The sum payable under the policy (known as benefit) may be fixed or may vary to reflect the income earned from the investment of premiums during the period for which the policy operates. For policies with varying returns, the terms “with-profits” life

insurance or endowment policy are generally used. Although the date and sum may be variable, a claim is always paid in respect of a life policy.

Essentially life insurance premiums and benefits are financial transactions and not current transactions, as it mainly redistributes premiums paid over a period of time as benefits paid later to the same policyholder.

### ***Non-life insurance***

Non-life insurance is an activity similar to life insurance except that it covers all other risks, accidents, sickness, fire, etc. Non-life insurance provides cover to the policyholder against loss or damage suffered as a result of an accident. A premium is paid to the insurance corporation and a claim is paid to the policyholder only if the event insured against occurs. There is no uncertainty regarding the payments, as the maximum amount to be paid is specified in the policy.

Term insurance, which provides a benefit in the case of death within a given period but in no other circumstances, is regarded as non-life insurance because, as with other non-life insurance, a claim is payable only if a specified contingency occurs and not otherwise. In practice, because of the way in which insurance corporations keep their accounts, it may not always be possible to separate term insurance from other life insurance. In these circumstances, term insurance may have to be treated in the same way as life insurance for purely practical reasons.

### ***Similarities and differences between life and non-life insurance***

What life and non-life insurance have in common is that they both involve spreading risk. Insurers receive many small regular payments of premiums from policyholders and pay much larger sums to claimants when the contingencies covered by the policy occur.

For non-life insurance, the risks are spread over the whole population that takes out the insurance policies. For an individual non-life policyholder there is no relationship between the premiums paid and the claims received, even in the long run, but the insurance corporation establishes such a relationship for every class of non-life insurance on a yearly basis.

For life insurance, a relationship between premiums and claims over time is important both to the policyholders and to the insurance corporation. For someone taking out a life policy, the benefits to be received are expected to be at least as great as the premiums paid up until the benefit is due; and can be seen as a form of saving. The insurance corporation must combine this aspect of a single policy with the actuarial calculations about the insured population concerning life expectancy (including the risks of fatal accidents) when determining the relationship between the levels of premiums and benefits.

In both life and non-life insurance, during the interval between the receipt of premiums and the payment of claims/benefits, the insurance corporation earns income from investing the premiums received. This income also affects the levels of premiums.

The differences between life and non-life insurance result in different types of entries in the SNA. Non-life insurance consists of redistribution in the current period between all policyholders and a few claimants. Life insurance mainly redistributes premiums paid over a period of time as benefits paid later to the same policyholder.

Regarding the treatment of net premiums and claims/benefits, these are treated as current transfers in the case of non-life insurance and as financial transactions recorded under insurance technical reserves in the case of life insurance.

Non-life insurance policy holders may belong to all sectors of the economy whereas life insurance policy holders are individuals<sup>33</sup>. Life insurance includes a large saving component, whereas the objective of non-life insurance is largely to pool risk.

### **Reinsurance**

Just as individuals may limit their exposure to risk by taking out an insurance policy, so may insurance corporations themselves. They buy insurance to protect themselves against an unexpectedly large number of claims or exceptionally large claims. Insurance between one insurance corporation and another is called *reinsurance*.

Before proceeding further, it is important to know the terms that are peculiar to the insurance industry and as understood in SNA.

Figure 2.14: Terms peculiar to the insurance industry

<b>Premiums</b>	'Premiums' is used for payment to the insurance corporation. Premiums are defined in exactly the same way for both life and non-life insurance.
<b>Actual premium</b>	The actual premium is the amount payable to the direct insurer or reinsurer to secure insurance cover for a specific event over a stated time period. Actual premiums are measured by the amounts payable after all allowances, discounts or bonuses are taken into account.
<b>Premium earned</b>	Premium earned is the part of the actual premium that relates to the cover provided in the accounting period. For example, if an annual policy with a premium of 120 units comes into force on April 1 and accounts are being prepared for a calendar year, the premium earned in the calendar year is 90.
<b>Unearned premium</b>	<p>The unearned premium is the amount of the actual premium received that relates to the period past the accounting point. In the example just given, at the end of the accounting period there will be an unearned premium of 30, intended to provide cover for the first three months of the next year.</p> <p>For non-life insurance, even though a premium may be payable at the start of a period of cover, the premiums are only earned on a continuous basis as the period passes. At any point before the end of the cover, the insurance corporation holds an amount due to the policyholder relating to services and possible claims to be provided in the future. This is a form of credit extended by the policyholder to the insurance corporation described as unearned premiums.</p>
<b>Premium supplements</b>	The insurance corporation has at its disposal reserves consisting of unearned premiums and claims outstanding. These reserves are called technical reserves <sup>34</sup> and are used by the insurance company to generate investment income. Because the technical reserves are a liability of the insurance corporation to the policyholders, the investment income they generate also belongs to the policyholders. However, the amounts remain with the insurance corporation and are in effect a hidden supplement to the apparent premium. This income is therefore treated as a premium supplement paid by the policyholder to the insurance corporation.

<sup>33</sup>Even when enterprises take life insurance cover, these always relate to their employees, who fall under the category of individuals.

<sup>34</sup>These funds are invested in a range of financial assets and possibly non-financial assets such as property and land. The insurance enterprises receive investment income from the financial assets and land, and earn net operating surpluses from the renting or leasing of residential and other buildings. In addition they make holding gains or losses on the financial assets held. The bonuses declared to holders of life policies should be recorded as investment income receivable by the Policyholders (resident and possibly non-resident households) and are treated as premium supplements paid by the policyholders to the insurance corporations. (para 7.144, SNA2008)

<b>Net premiums</b>	Net premiums are defined as actual premiums plus premium supplements less the insurance service charge payable by the policyholders
<b>Net non-life insurance premiums in accounting period</b>	Net non-life insurance premiums comprise both the actual premiums payable by policyholders to obtain insurance cover during the accounting period (premiums earned) and the premium supplements payable out of the investment income attributed to insurance policyholders less the service charges payable to the insurance corporation.
<b>Claims</b>	Payments by the insurance corporation are called claims in the case of non-life policies
<b>Benefits</b>	Payments by the insurance corporation are called benefits in the case of life policies
<b>Claims incurred</b>	Claims that become due are described as claims incurred, even when the settlement of the claim takes several years. Claims generally become due when the event covered by the policy occurs in the period for which the policy is valid, even if the payment is made some time later. Claims incurred = claims paid + changes in reserves against outstanding claims
<b>Adjusted claims incurred</b>	Claims incurred plus the changes in equalization provisions and, if necessary, changes to own funds
<b>Claims due</b>	Same as claims incurred
<b>Claims outstanding</b>	Claims outstanding cover claims that have not been reported, have been reported but are not yet settled or have been both reported and settled but not yet paid.
<b>Bonuses</b>	It is common with life insurance policies for amounts to be explicitly attributed by the insurance corporation to the policyholders in each year. These sums are often described as bonuses.
<b>Term insurance</b>	A policy that provides a benefit in the case of death within a given period but in no other circumstances is usually called term insurance.
<b>Reserves</b>	Reserves are the amounts available (during the time between the premium being paid and the claim being payable) at the disposal of insurance corporations for them to invest and earn income from it.
<b>Reserves against claims outstanding</b>	Similar to the unearned premiums, although claims become due for payment by the insurance corporation when the contingency specified in the policy eventuates, they may not be actually payable until sometime later, often because of negotiation about the amounts due. This is another similar form of credit, described as reserves against claims outstanding.
<b>Technical reserves</b>	<p>The insurance corporation has at its disposal reserves consisting of unearned premiums and claims outstanding. These reserves are called technical reserves and are used by the insurance company to generate investment income.</p> <p>These reserves for life insurance consist, (i) actuarial reserves against outstanding risks in respect of life insurance policies; (ii) reserves for with- profit policies which add to the value on maturity of with-profit endowments or similar policies; (iii) reserves towards prepayments of premiums; and (iv) reserves against outstanding claims.</p>
<b>With-profit endowments or similar policies</b>	These policies on maturity provide, basic sum assured <sup>35</sup> , bonuses promised and part of the profits of life insurance company.

### 3.5.2. Sources of data

The financial statements of insurance companies provide the basic information for compiling national accounts for the financial corporations in respect of insurance companies. In most

<sup>35</sup>The basic sum assured is the minimum amount of life assurance payable on death; for endowment contracts it is also the minimum lump sum payable at maturity.



countries, it is mandatory for the insurance companies to submit annual financial statements to the insurance regulatory agencies. These regulatory agencies maintain individual insurance companies' accounts as also the consolidated financial statements of all insurance companies in the country.

The national accountants should access these individual or consolidated financial accounts of both life and non-life insurance companies and those of reinsurers, for use in the compilation of national accounts. If such information is not available, the compiling agency may need to conduct surveys to collect the necessary information.

### **3.5.3. Structure**

The structure of financial statements of insurance companies is regulated by international standards, such as IAS 1. These statements contain information on assets, liabilities, equity, income and expenses (including gains and losses), contributions by and distributions to owners and cash flows.

The financial statements of insurance companies provide details on gross and net premium contributions, premiums earned, commissions received and paid, gross and net claims/benefits paid, movement in reserves, increase in insurance fund, investment income, other income, commission paid, interest expenses, establishment and other expenses, provisions and allowances, taxes and profits. These details available in the financial statements of insurance companies provide required information to compile national accounts.

### **3.5.4. Conceptual issues specific to insurance**

The following points highlight the conceptual issues that are specific to insurance.

The activity of insurance is a form of financial intermediation. In this, funds are collected from policyholders and invested in financial or other assets (which are held as technical reserves) to meet future claims arising from the occurrence of the events specified in the insurance policies.

Typically, insurance enterprises do not charge for services they provide in arranging the financial protection or security which insurance is intended to provide. Therefore, these service charges are estimated indirectly. However, there could be cases where insurance enterprises do make explicit charges to their policyholders. In such cases, these explicit charges are treated as payments for services rendered in the normal way.

The insurance company sets the level of the actual premiums to be such that the sum of the actual premiums plus the investment income earned on them less the expected claim will leave a margin that the insurance company can retain; this margin represents the output of the insurance company. This margin, which is the output of the insurance industry, is determined from the premium setting policies of the insurance corporations. The components involved in premium setting are (i) premium earned; (ii) premium supplements; (iii) claims (or benefits) incurred; and (iv) reserves.

The insurance terminologies that are most referred to in the compilation of national accounts are *premiums earned*, *premium supplements*, *net premiums*, *changes in reserves*, *claims incurred/due*, *adjusted claims incurred and benefits*. It is necessary for national accountants to familiarise themselves with these terms.

The value of output of services produced by insurance enterprises is calculated as:

1. Total resources	Actual premiums earned + premium supplements
2. Total technical charges	Claims due + changes in actuarial reserves and reserves for with-profits insurance
3. Value of output	1-2

### ***Life insurance***

Normal life insurance is distinct from social insurance. Life insurance is entered into on own initiative, whereas social insurance involves a third party intervention, such as the government or employer. Benefits from life insurance policy are recorded in the financial account. On the other hand, benefits/pensions from social insurance are recorded as income in the secondary distribution of income account.

If we consider transactions between domestic insurers and residents only, then:

- Life insurance transactions take place only between insurance corporations and households, as life insurance policy is always held by an individual. Therefore, output of life insurance services (recorded under resources in production account of insurance corporations) equals the household final consumption expenditure (recorded under uses in the use of disposable income account of households).
- Investment income (including bonuses declared) attributed to insurance policyholders (known as premium supplements) in respect of life insurance is recorded in the allocation of primary income account. There will be corresponding entries for households in the same account.

Recording of entries for imports and exports of insurance services will arise if non-residents and/or non-resident insurers are involved.

The investment income attributed to insurance policyholders is treated as premium supplements. This includes property income from real estate, bonuses attributed to the policy holders but retained by insurers, and excess of income from the investment of life reserves over any amounts explicitly attributable to the policyholders. This property income is deemed to be paid out to policyholders and then paid back again as premium supplements even though in actuality the property income is retained by the insurance enterprises. The amount involved is earnings forgone by the policyholders by putting the funds at the disposal of the insurance corporation and is thus recorded as property income in the allocation of primary income account.

Premiums and claims are not shown separately in the case of life insurance and are not treated as current transfers. Rather they constitute components of a net transaction in the financial asset life insurance and annuities entitlements, recorded in the financial account.

In the *financial account*, the item change in life insurance and annuities entitlements is shown as a *change in assets of households and the rest of the world*; and a *change in liabilities of insurance corporations*. It is equal to actual premiums plus premium supplements (equal to the investment income attributed to policyholders) less the value of the services consumed and less benefits due.

Output and net premiums of life insurance are calculated as:

Output of life insurance =	Premiums earned + premium supplements – benefits due – increases (plus decreases) in actuarial reserves and reserves for with-profits insurance
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Net premiums of life insurance =	Actual premiums (earned premiums plus unearned premiums) + premium supplements - output of life insurance
Life insurance technical reserves =	unearned premiums + reserves against outstanding + Actuarial reserves for life insurance + reserves for with-profits insurance benefits

2008 SNA suggests estimating output of life insurance as sum of costs plus an allowance for normal profits, if adequate data are not available for the calculation of life insurance, according to this formula.

The key items used in compiling national accounts for life insurance are, *earned premiums*, *unearned premiums*, *investment income* or *premium supplements*, *benefits due* and *changes in life insurance technical reserves*.

The following table provides steps to compute various items involved in measuring output of life insurance.

Figure 2.15: Data from insurance corporations on life insurance transactions

Item	Value
1. Earned premiums	750
2. Unearned premiums	195
3. Benefits due	195
4. Increase in actuarial reserves	240
5. Investment income	63

Source: UN-ECB Handbook, 2014

Figure 2.16: Calculation of output and net premiums for data presented in Figure 2.15

Item	Equation		Value	2008 SNA code
6. Actual premiums=	Earned premium + unearned premium	1+2	945	
7. Premium supplements =	Investment income attributable to policyholders	5	63	D4, D441
8. Output of insurance corporations (insurance service charge)	Earned premiums + premium supplements – benefits due – increase in actuarial reserves	1+7-3-4	378	P1
9. Net premiums (to be recorded in financial account)	Actual premiums + premium supplements – allocated output of life insurance <sup>36</sup>	1+2+7-8	630	

<sup>36</sup>Explicit charges or other incomes though are part of output, are not to be included in net premiums.

Item	Equation		Value	2008 SNA code
	<div style="border: 1px solid black; background-color: #d4f1d4; text-align: center; padding: 2px;">OR</div> unearned premiums + benefits due + increase in actuarial reserves			

The values are recorded in different accounts of insurance corporations, as follows:

- Production account
  - Resources
    - P1 output : 378 (8)
  - Uses
    - Balancing item, B1g value added: 378 (derived)
- Allocation of primary income account
  - Resources:
    - Balancing item, B1g value added: 378
    - D4 property income : 63 (5)
  - Uses
    - D441 investment income attributable to insurance policy holders : 63(5)
    - Balancing item, B5g balance of primary income, gross: 378 (derived)

### ***Non-life insurance***

Output of non-life insurance is based on the principle of adding premiums and premium supplements and deducting adjusted claims incurred. The 2008 SNA introduced additional methods to compute adjusted claims, considering volatility in claims arising from exceptional events. Accordingly, three different methods of estimating output of non-life insurance have been suggested:

- Expectations approach

Output of non-life insurance =	Actual premiums earned + premium supplements – adjusted claims incurred, where adjusted claims are estimated from past experience.
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- Sum of costs approach

Output of non-life insurance =	Intermediate consumption + compensation of employees + consumption of fixed capital + net other taxes on production + an allowance for “normal profit”.
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- Accounting approach

Output of non-life insurance =	Actual premiums earned + premium supplements – adjusted claims incurred <sup>37</sup> , where adjusted claims are determined by using claims due plus the changes in equalization provisions and, if necessary, changes to own funds
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*Adjusted claims incurred* are determined as the sum of actual claims incurred plus the changes in equalization provisions (i.e. additions to / less withdrawals from equalization provisions) and, if necessary, changes to own funds (i.e. additions to / less withdrawals from own funds). The item

<sup>37</sup> Adjusted claims = claims incurred + changes in equalization provisions

“changes in equalization provisions” is an entry in the accounts of insurance corporations that gives a guide to the funds the insurance corporations set aside to meet unexpectedly large claims. In circumstances where the equalization provisions are insufficient to bring adjusted claims back to a normal level, some contribution from own funds must be added also.

Output of non-life insurance is recorded in the production account of insurance corporations. This output is consumed by the sectors using insurance services as intermediate consumption (recorded in the *production account*) or by the households (representing consumer households) as final consumption expenditure (recorded in the *use of income account*). If there are any payments by the rest of the world, these are recorded as exports in the *external goods and services account*.

The redistributive transactions cover investment income attributed to policyholders in respect of non-life insurance, net<sup>38</sup> non-life insurance premiums, and insurance claims:

- Investment income is attributed to policyholders. It is recorded as receivable and payable by insurance corporations and receivable by all sectors and the rest of the world, in the *allocation of primary income account*.
- Net non-life insurance premiums are payable by all sectors of the economy or the rest of the world and receivable by insurance corporations. Insurance claims incurred are payable by insurance corporations and receivable by all sectors of the economy and the rest of the world. Both net premiums and claims are recorded in the *secondary distribution of income account*.

An important point to note here is that net non-life insurance premiums only consider the earned premiums, i.e., the amounts due to obtain cover in the period of account, not the amounts of premiums actually paid in the period. The balance premiums, i.e. the unearned premiums and reserves against outstanding claims are shown as a change in liabilities of insurance corporations (with a negative sign if necessary) and a change in assets of all sectors and the rest of the world.

Non-life insurance claims are treated as current transfers. However, there could be cases when such claims are recorded as capital transfers, particularly in the wake of a major catastrophe.

The following table provides steps to compute various items involved in measuring output of non-life insurance, using the accounting approach<sup>39</sup>. For simplicity sake, it is assumed that this property income is payable by other resident sectors and that all the investment income attributable to policyholders comprises this property income.

Figure 2.17: Data from insurance corporations on non-life insurance transactions

Item	Value	2008 SNA code
1. Earned premiums	750	
2. Unearned premiums	195	
3. Claims paid	195	

<sup>38</sup>“Net” as applied to premiums implies that the service charge for the insurance services has been deducted from actual premiums paid plus premium supplements. There is no netting between direct insurance and reinsurance; each is recorded in full and separately from the other.

<sup>39</sup>This is the most common method used by countries to measure output of non-life insurance.

Item	Value	2008 SNA code
4. Changes in claims outstanding	166	
5. Changes in equalization provisions	200	
6. Investment income	63	D4, D441

Source: UN-ECB Handbook, 2014

Figure 2.18: Calculation of claims and adjusted claims incurred, non-life insurance output and net non-life insurance premiums from data presented in Figure 2.17

Item	Equation	Description	Value	2008 SNA code
7. Claims incurred	claims paid + changes in reserves against outstanding claims	(3)+(4)	361	D72, D721
8. Adjusted claims incurred	claims incurred + changes in equalization provisions	(7)+(5)	561	
9. Output of insurance corporations (insurance service charge)	premiums earned + premium supplements - adjusted claims	(1)+(6)-(8)	252	P1, P3
10. Net non-life insurance premiums	premiums earned + premium supplements - non-life insurance output	(1)+(6)-(9)	561	D71, D711

The values are recorded in different accounts of insurance corporations, as follows:

- Production account
  - Resources
    - P1 output : 252 (9)
  - Uses
    - Balancing item, B1g value added: 252 (derived)
- Allocation of primary income account
  - Resources:
    - Balancing item, B1g value added: 252
    - D4 property income : 63 (6)
  - Uses
    - D441 investment income attributable to insurance policy holders : 63(6)
    - Balancing item, B5g balance of primary income, gross: 252 (derived)
- Secondary distribution of income account
  - Resources
    - Balancing item, B5g balance of primary income, gross:252
    - D71, D711 net non-life direct insurance premiums: 561 (10)
  - Uses
    - D72, D721 non-life direct insurance claims<sup>40</sup>: 361 (7)

<sup>40</sup>Claims incurred are recorded here, rather than the adjusted claims incurred.

- Balancing item, B6g disposable income, gross:452

### 3.5.5. Bridge tables – national accounts from insurance company accounts

The following tables present an example (not exhaustive) of how each transaction extracted from the financial statements of insurance corporations are linked to SNA transactions.

#### *Life insurance*

Figure 2.19: Simplified bridge table for life insurance business

	Items from accounting statements	SNA transactions	Amounts
1	Earned premiums, net of reinsurance	+P1	13,000
2	Investment income:	+ P.1 / D.4	4,600
	a) income from participating interests, with a separate indication of that derived from affiliated undertakings	+ P.1 / D.4	2,600
	b) income from other investments, with a separate indication of that derived from affiliated undertakings	+ P.1 / D.4	2,000
	aa) income from land and buildings	+ P.1 / D.4	1,400
	bb) income from other investments	+ P.1 / D.4	600
3	Unrealised gains on investments	- P.1 / - D.4	40
4	Other technical income, net of reinsurance (treated as unearned premium)	Financial	50
5	Claims incurred, net of reinsurance	- P.1	3,000
6	Changes in other technical provisions, net of reinsurance, not shown under other headings (+/-)	- /+P.1	100
7	Bonuses and rebates, net of reinsurance	- P.1	30
8	Net operating expenses	P.2	5,000
	a) acquisition costs	P.2	2,100
	b) change in deferred acquisition costs (+/-)	P.2	1,000
	c) administrative expenses	P.2	1,900
9	Wages and salaries (including social security contributions	D.1	1,250
10	Depreciation	K.1	900
11	Investment charges	P.2	30
	a) investment management charges, including interest	P.2	15
	b) value adjustments on investments	P.2	7
	c) losses on the realisation of investments	P.2	8
12	Unrealised losses on investments	+ P.1 / D.4	60
13	Other technical charges, net of reinsurance	P.2	1

Source: Eurostat Handbook (2013), Chapter 5

#### Output and value added calculations from Figure 2.19

14	premiums earned = earned premiums, net of reinsurance (1) - bonuses and rebates, net of reinsurance (7)	12,970	
15	Premium supplements = investment income (2) - unrealised gains on investments (3) + unrealised losses on investments (12)	4,620	D4/D44
16	Other technical income (assumed to be unearned premium) (4)	50	

17	Benefits due (5)	3,000	
18	Changes (+/-) in technical reserves(6)	100	
19	Output(14)+(15)-(17)-(18)	14,490	P1
20	Intermediate consumption = Operating expenses (8) + investment charges (11) + other technical charges (13)	5,031	P2
21	Gross value added (20) - (21)	9,459	B1g
22	Actual premiums = earned premiums (14) + unearned premiums (16)	13,020	
23	Net premiums = actual premiums (22) + premium supplements (15) - insurance service charges (19)	3,150	Financial transaction
24	Net premiums = unearned premiums (16) + benefits due (17) + increase in actuarial reserves (18)	3,150	

Figure 2.20: Sequence of accounts from Figure 2.19

**I: Production account**

Resources		
P.1 Output		1,440
Uses		
P.2 Intermediate consumption		5,031
<b>B.1g Value added, gross</b>		<b>9,459</b>
K.1 Consumption of fixed capital		900
<b>B.1n Value added, net</b>		<b>8,559</b>
II.1.1: Generation of income account		
Resources		
<b>B.1n Value added, net</b>		<b>8,559</b>
<b>B.1g Value added, gross</b>		<b>9,459</b>
Uses		
D.1 Compensation of employees		1,250
D.11 Wages and salaries		1,250
D.12 Employers' social contributions		
D.29 Other taxes on production		
D.39 Other subsidies on production		
<b>B.2 Operating surplus, net</b>		<b>7,309</b>
<b>B.2 Operating surplus, gross</b>		<b>8,209</b>
II.1.2: Allocation of primary income account		
Resources		
<b>B.2 Operating surplus, net</b>		<b>7,309</b>
D.4 Property income		4,620
D.41 Interest		4,620
D.42 Distributed income of corporations		
D.421 Dividends		
D.422 Withdrawals from income of quasi-corporations		
D.43 Reinvested earnings on direct foreign investment		
D.44 Property income attributed to insurance policyholders		
D.45 Rent		
Uses		
D.4 Property income		4,620
D.41 Interest		
D.42 Distributed income of corporations		



D.421 Dividends	
D.422 Withdrawals from income of quasi-corporations	
D.43 Reinvested earnings on direct foreign investment	
D.44 Property income attributed to insurance policyholders	4,620
D.45 Rent	
B.5 Balance of primary incomes	7,309
<b>II.2: Secondary distribution of income account</b>	
Resources	
B.5 Balance of primary incomes	7,309
D.61 Social contributions	
D.611 Actual social contributions	
D.612 Imputed social contributions	
D.7 Other current transfers	
D.71 Net non-life insurance premiums	
D.72 Non-life insurance claims	
D.75 Miscellaneous current transfers	
Uses	
D.5 Current taxes on income, wealth, etc.	
D.51 Taxes on income	
D.59 Other current taxes	
D.62 Social benefits other than social transfers in kind	
D.7 Other current transfers	
D.71 Net non-life insurance premiums	
D.72 Non-life insurance claims	
D.75 Miscellaneous current transfers	
B.6 Disposable income	7,309

Note: Net premiums and benefits are not treated as current transfers for life insurance and are recorded in financial account.

#### II.4.1: Use of disposable income account

Resources	
B.6 Disposable income	7,309
Uses	
D.8 Adjustment for the change in net equity of households on pension funds	
B.8 Saving	7,309
<b>III.1: Capital account</b>	
Changes in liabilities and net worth	
B.8n Saving, net	7,309
D.9 Capital transfers, receivable	
D.9 Capital transfers, payable	
Changes in assets	
P.51 Gross fixed capital formation	
P.511 Acquisitions less disposals of tangible fixed assets	
P.512 Acquisitions less disposals of intangible fixed assets	
P.513 Additions to the value of non-produced non-financial assets	

K.1 Consumption of fixed capital	900
P.52 Changes in inventories	
P.53 Acquisitions less disposals of valuables	
K.2 Acquisitions less disposals of non-produced non-financial assets	
B.9 Net lending (+) / net borrowing (–)	8209

### Non-life insurance

Figure 2.21: Simplified bridge table for non-life insurance business

	Items from accounting statements	SNA transactions	Amounts
1	Earned premiums, net of reinsurance	+P1	25,700
2	Allocated investment return transferred from the non-technical account ~ apart from insurance activity	D4	10
3	Other technical income, net of reinsurance	+P1	100
4	Claims incurred, net of reinsurance	-P1	6,500
5	Changes in other technical provisions, net of reinsurance, not shown under other headings (+/-)	+P1/D4	700
6	Bonuses and rebates, net of reinsurance	-P1	40
7	Net operating expenses:	P2	3,000
	a) acquisition costs	P2	2,950
	b) change in deferred acquisition costs (+/-)	P2	200
	c) administrative expenses	P2	1,000
	d) fees from reinsurance (-)	P2	-2,200
	e) wages and salaries (including social security contributions)	D1	800
	f) depreciation	K1	250
8	Change in the equalisation provision (+/-)	-P1	90

Source: Eurostat Handbook (2013) Chapter 5

### Calculations of key insurance data from the above table

10. Premiums earned = earned premiums, net of reinsurance - bonuses and rebates, net of reinsurance = 25700 (1) - 40 (6)	25,600
11. Premium supplements = 700 (5)	700
12. Other technical income = 100 (3)	100
13. Claims incurred= claims paid + changes in reserves against outstanding claims (4)	6,500
14. Adjusted claims incurred = claims due + changes in equalization provisions and, if necessary, changes to own funds = 6500 (4) + 90 (8)	6,590
15. Output of non-life insurance = premiums earned + premium supplements + other technical income - adjusted claims incurred (9)+(10)+(11)-(12)	19,870

16. Net non-life insurance premiums = earned premiums + premium supplements - insurance service charges, which is also the output (9)+(10)+(11)-(13)	6,590
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Figure 2.22: Sequence of accounts from Figure 2.21

I: Production account		
Resources		
P.1 Output	(1+3+5) - (4+6+8)	19,870
Uses		
P.2 Intermediate consumption	7 (a) to 7 (d)	1,950
<b>B.1g Value added, gross</b>		<b>17,920</b>
K.1 Consumption of fixed capital	7(f)	250
<b>B.1n Value added, net</b>		<b>17,670</b>
II.1.1: Generation of income account		
Resources		
<b>B.1n Value added, net</b>		<b>17,670</b>
<b>B.1g Value added, gross</b>		<b>17,920</b>
Uses		
D.1 Compensation of employees		800
D.11 Wages and salaries	7 (e)	800
D.12 Employers' social contributions		0
D.29 Other taxes on production		0
D.39 Other subsidies on production		0
<b>B.2 Operating surplus, net</b>		<b>16,870</b>
<b>B.2 Operating surplus, gross</b>		<b>17,120</b>
II.1.2: Allocation of primary income account		
Resources		
<b>B.2 Operating surplus, net</b>		<b>16,870</b>
D.4 Property income		710
D.41 Interest	(2+5)	710
D.42 Distributed income of corporations		0
D.421 Dividends		0
D.422 Withdrawals from income of quasi-corporations		
D.43 Reinvested earnings on direct foreign investment		0
D.44 Property income attributed to insurance policyholders		0
D.45 Rent		0
Uses		
D.4 Property income		700

D.41 Interest	0
D.42 Distributed income of corporations	0
D.421 Dividends	
D.422 Withdrawals from income of quasi-corporations	
D.43 Reinvested earnings on direct foreign investment	0
D.44 Property income attributed to insurance policyholders (5)	700
D.45 Rent	0
B.5 Balance of primary incomes	16,880
<b>II.2: Secondary distribution of income account</b>	
Resources	
B.5 Balance of primary incomes	16,880
D.61 Social contributions	0
D.611 Actual social contributions	
D.612 Imputed social contributions	
D.7 Other current transfers	6,590
D.71 Net non-life insurance premiums (1-6+3+5-output)	6,590
D.72 Non-life insurance claims	0
D.75 Miscellaneous current transfers	0
Uses	
D.5 Current taxes on income, wealth, etc.	0
D.51 Taxes on income	
D.59 Other current taxes	0
D.62 Social benefits other than social transfers in kind	0
D.7 Other current transfers	6,500
D.71 Net non-life insurance premiums	0
D.72 Non-life insurance claims (4)	6,500
D.75 Miscellaneous current transfers	0
B.6 Disposable income	16,970
<b>II.4.1: Use of disposable income account</b>	
Resources	
B.6 Disposable income	16,970
Uses	
D.8 Adjustment for the change in net equity of households on pension funds	0
B.8 Saving	16,970
<b>III.1: Capital account</b>	
Changes in liabilities and net worth	
B.8n Saving, net	16,970
D.9 Capital transfers, receivable	0
D.9 Capital transfers, payable	0
Changes in assets	
P.51 Gross fixed capital formation	0

P.511 Acquisitions less disposals of tangible fixed assets	0
P.512 Acquisitions less disposals of intangible fixed assets	0
P.513 Additions to the value of non-produced non-financial assets	0
K.1 Consumption of fixed capital	250
P.52 Changes in inventories	0
P.53 Acquisitions less disposals of valuables	0
K.2 Acquisitions less disposals of non-produced non-financial assets	0
B.9 Net lending (+) / net borrowing (–)	17,220

### 3.6. Summary

The above sections provide a summary of guidelines and key points to be considered while compiling national accounts variables and sequence of accounts in respect of central bank, commercial banks, and life and non-life insurance corporations. These sections also include illustrative examples of translating business accounts to national accounts.

The compilation of national accounts for financial corporations sector requires special considerations, unlike in the case of non-financial sector. Estimates of output to be recorded in the national accounts for these corporations cannot be computed directly from their financial statements, and can only be estimated in an indirect manner. There are several typical terminologies and features used in the compilation of national accounts for financial corporations, and it is important for national accountants to familiarise themselves with these terms and concepts.

One of the advantages in the context of compiling national accounts for financial corporations is that this sector is most regulated in almost all the countries, which necessitates all the units in this sector to compile and submit financial statements (annual and/or quarterly) to the regulatory agencies, besides maintaining detailed information internally. The national accountants, therefore, would need to establish a mechanism with either the regulatory agencies or the individual financial corporations (generally they may not be many in number in most developing countries) to provide detailed information on their activities.

## Chapter 3. Use of annual financial statements of non-financial companies for national accounts

This chapter presents the translation of administrative data of non-financial corporations comprising their financial statements, to the national accounts. .

The text for the chapter has mainly been sourced from the following three documents:

- 1) *System of National Accounts, 2008*, European Commission, IMF, OECD, UN, World Bank, 2009
- 2) *Links between business accounting and national accounts*, United Nation, 2000;
- 3) *Essential SNA: Building the basics*, European Commission, 2013.

### 4.1. Introduction

The aim of the chapter is to presents the use of business accountings in the preparation of the national accounts of the non-financial sector according to the 2008 System of National Accounts (SNA). Financial data provided by enterprises represents an important data sources used for the estimation of national accounts, but there are many conceptual differences between company accounts and national accounts, and linking them requires many adjustments: some may be carried out with information only from business accounts, but others can be realised taking the whole economy into consideration.

Some countries use business accounts indirectly, through censuses and surveys of business or tax returns; others use business financial reports directly from companies. Many countries, however, combine both direct and indirect uses. No matter how business data are obtained, it is important that their content is well included in national accounts and the indicators are calculated based on SNA methodological requirements. For this reason, the chapter is devoted to present the links of accounting system to national accounts concepts. The linking requires a clear understanding of businesses accounts, which is, more often, a difficult task for national accountants who are trained mainly in macroeconomics. The depth understanding of business accounts content would help national accountants for a proper use of them in the calculations.

Since company accounts are the only or the main source of information on corporate business activities, it seems natural that a standardized format should be developed to link data from business accounts to national accounts. Unfortunately, accounting standards, both in format and content, may vary not only from one country to another but also from one business to another; this makes it impossible to develop a standardized format for converting businesses accounts to national accounts. National accountants, as a consequence, have to use their judgement and understanding of the accounting practices in their countries to link company accounts data to national accounts indicators with appropriate adjustments. In this case, it is necessary that information from business accounts should first be rearranged in the formats of national accounts - which are called *intermediate accounts*, based on specific “*bridge tables*”. This chapter presents an example of the construction of the “bridge tables” and the elaboration of the sequence of accounts for non-financial sector.

## 4.2. Accounting system

### 4.2.1. Financial statements

The development of the national accounts requires a successful cooperation between national accountants and the company which provide the basic data and more extensive and close cooperation with company accounting professions.

In order to extract the most useful information from company accounts it is necessary for national accountants to develop a clear understanding of business accounting practices.

It is important to note that while the national accounts have an international standards shared across every country in the world, the development and application of business accounting is n different amongst countries. However, business accounting is moving to applying international standards. Thus global financial reporting has ceased to be characterised by numerous disparate national systems to the point at which there are today essentially only two – International Financial Reporting Standards( IFRS) (as issued by International Accounting Standards Board (IASB)) and- Generally Accepted Accounting Principles (GAAP) (as issued by the Financial Accounting Standards Board (FASB)).

The IASB was, until April 2001 known as the International Accounting Standards Committee (IASC). The IASC was originally set up in 1973 and was the sole body to have both responsibility and authority to issue international accounting standards.. The IASB amended many of the standards and started to issue its own standards, which were known as International Financial Reporting Standards (IFRS). The term ‘IFRS’ has become a somewhat generic term that refers to all the standards (both IAS and IFRS).

The **financial statements** of enterprises consist of a number of separate statements or accounts; they describe the operations in the accounting period, as well as the financial position of the enterprise, which is not only the result of the activities of this period, but also reflects the accumulated results of previous ones.

The statements are elaborated on the basis of the principles of business accounting and consist, in general, of four separate statements, i.e.:

- The balance sheet , which describes the financial position of a corporation, including its assets, liabilities and its net equity;
- The profit and loss statement (income statement) which includes the flow of revenues and outlays during the accounting period
- A statement describing the changes in the net equity of the corporation, which provides more detail on the equity included in the balance sheets statement, with regard to changes in the paid-up capital, accumulation of profits and/or losses, revaluations, accumulated depreciation and other reserves
- Explanatory notes (EN) providing details on some of the statements, both in descriptive and quantitative formats.

The **income statement** is one of the major financial statements used by accountants and business owners. The other major financial statements are the balance sheet, statement of cash flows, and the statement of changes in equity.

The income statement provides an insight into the performance of the company for a period of time. The balance sheet (also known as the statement of financial position) provides a snapshot of the business' financial position (assets, liabilities and equity) at the end of the time period. The statement of cash flows and the statement of changes in equity provide detail of how the company's financial position changed during the time period.

The format of the income statement or the profit and loss statement will vary according to the complexity of the business activities and legislation in force in each country.

Income statement can be prepared in either in the format of single-step or of multi-step income statement. The expenses in an income statement are either classified by their nature or by their function. An income statement by nature method is the one in which expenses are disclosed according to their nature such as depreciation, transports costs, rent expense, wages and salaries etc. There is no reallocation of these expenses to different functions of the entity (i.e. cost of goods sold, selling costs, administrative costs and other expenses). This form is usually employed by small businesses due to its simplicity.

In the second case, the expenses are disclosed according with their functions, and allow the calculation of gross profit and operating profit; this form is usually used by large and medium sized businesses.

There are two main conditions that must be met for the use of business accounts in the national accounts compilation process.

The first condition is the **access** to companies' accounts. Usually, the publication of accounts is mandatory. The accounts of companies are publicly available, the level of information and disclosed is dependent upon their size and whether they are classified as small, medium or large. Databases are most often set up by public bodies (Ministry of Finance, Tax Authority, etc.), and it is important that national accountants are able to access these.

Also, it is important to note that the different types of accounts and the detail available will vary across private sector and public sector enterprises and between small, medium and large enterprises.

The second condition is a **minimum degree of standardisation** of the accounting documents published by enterprises, since this is a necessary condition for computerised processing. A high level of standardisation is often associated with the existence of a body collecting accounts from enterprises in this form. Collection may be organised on a voluntary basis, as in the case of the body running a financial statements centre which performs analyses for its members, or it may be made mandatory by law, as it is the case where the collecting body is the tax authority. In both cases, the most advantageous situation is one in which the national accountants are able to access and use the databases set up in this way.

Business accounts can be used even when the accounts are not compiled on a strictly standardised basis. In fact, in most countries, there are sectors of the economy dominated by a small number of very large enterprises, and it is therefore possible and useful to take an individual look at the accounts of the large enterprises in order to make assessments on the basis of these for the needs of the national accounts.

When the national accountants are unable to access company accounts directly, they have to resort to surveys. But these only provide satisfactory results if the questions asked are compatible with business accounting. It is, in effect, pointless to expect an enterprise to be able to provide reliable



information which is not based on that existing within its own internal information system. However, surveys are generally essential, even in the best case when the national accountants are able to access the accounting databases, as the information contained in these databases is rarely detailed enough to meet all the needs of the national accountants.

#### **4.2.2. Principles and rules of accounting**

The use of business accounts for national accounts compilation requires the knowledge of principles and rules followed in the both systems in order to identify the differences and to apply the right adjustments. The following paragraphs present some of the general principles and rules of national accounts and businesses accounts.

##### *Double entry and quadruple entry*

In business accounting system, each transaction of the company is recorded in two different accounts, once in the debit side of one account, and once in the credit side of another account, for the same amount. Double entry book keeping is the process of recording each transaction twice - as an asset and a liability - in order to be able to set out balances showing the financial state of the business at a particular moment in time. This double entry principle, which permits a check of the consistency of company accounts, is applied in the same way in national accounts for a unit or institutional sector.

In national accounts, the concept of quadruple entry is applied; each transaction is recorded twice by the two transactors involved (in their debit and credit side) .The quadruple entry principle ensures the conceptual basis for the consistency of the national accounts.

##### *Time of recording*

Business accounts record operations when they take place, giving rise to claims and obligations, independently of the payment. This time of recording is known as an accrual principle (as opposed to a cash basis). Conceptually, national accounts follow the same principle.

##### *Valuation*

Business accounting system is concerned with past events and it requires consistency and comparability that is why it requires the accounting transactions to be recorded at their historical costs. This is called historical cost concept. Historical cost is the value of a resource given up or a liability incurred to acquire an asset/service at the time when the resource was given up or the liability incurred. In subsequent periods when there is appreciation in value, the value is not recognized as an increase in assets value except where allowed or required by accounting standards.

Accounting standard setters (IASB and FASB) continue to turn to fair value as a relevant measure of assets and liabilities for financial reporting purposes. IFRS 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This concept is close to the SNA valuation principle for balance sheet items.

### **4.3. National accounts and company accounts: practical issues**

#### **4.3.1. Accounting year start and end dates**

The start and end dates of the business accounting year must correspond with the reference period of the national accounts. For annual national accounts, this is generally the calendar year. Thus it is desirable in order to make best use of company accounts that these enterprises start their accounting year on 1 January and end on 31 December.

Enterprises can choose other financial year start dates. For operations corresponding to flows in the national accounts, it is often acceptable to recreate accounts on the basis of the calendar year by combining proportions of two successive financial years, but for balance sheets this method provides less satisfactory results, especially for items liable to rapid fluctuations during the year. With regard to the length of the accounting year, this is normally one year but when the enterprise is established or closes down, shorter or longer periods are also possible and adjustments are necessary to be applied in order to use them for national accounts compilation.

#### **4.3.2. Currencies**

The impact and treatment of currency changes and conversions, especially for global businesses can pose problems. For example, some business accounts (e.g. oil companies) provide details in dollars, some of the details are made available in resident countries' currency and some details are not converted, thereby making interpretation and use more difficult within the resident countries' national accounts. The value of assets and liabilities denominated in foreign currency is measured by their current market value in foreign currency converted into national currency at the current exchange rate.

Transactions in assets and liabilities denominated in foreign currency are converted into the national currency using the exchange rates at the time the transactions occur, while the opening and closing balance sheet values are converted using the exchange rates prevailing at the dates to which the balance sheets relate. This implies that the total value of the transactions as net acquisitions - acquisitions less disposals - expressed in foreign currency is, in effect, converted by a weighted average exchange rate in which the weights are given the values of transactions conducted on different dates.

#### **4.3.3. Fixed assets**

There are differences in definition/coverage such that some items may be treated as current expenditure in company accounts but as capital expenditure in national accounts. For example, items like computer software are often treated as current expenditure, sometimes even small purchases like laptops do not feature in capital expenditure in business accounts.

The national accounts definition of gross fixed capital formation (GFCF) covers “....*goods and services that are used in production for more than one year*” (the 2008 SNA, paragraph 10.33). For this reason, adjustments should be made of the data from financial statements of enterprises when they are used for the estimation of GFCF in national accounts.

The balance sheet assets may include items that do not correspond to assets within the meaning of national accounts. In fact, expenses, for example advertising expenses (treated as intermediate consumption in national accounts), which are likely to have a positive influence upon the enterprise

for a number of accounting years, may be recorded in the balance sheet as fixed assets are in order to be spread over a number of accounting years and not charged solely to the accounting year in which they occur.

If the advertising expenditure in this case related to a number of years, then it could be treated as current assets and held as a pre-payment for which the advertising related to future periods. If the advertising expenditure would be capitalised in company accounts then it would be open to an impairment review, where the capitalised amounts in the financial statement would have to be demonstrated.

#### **4.3.4. Consumption of fixed capital<sup>41</sup>**

A major difference between two systems, commonly known, is in the treatment of depreciation: accounting for tax purposes may apply a depreciation schedule allowed by tax authorities in order to reduce the immediate payment of income taxes while accounting for business analysis focuses on the true standing of a company with a different schedule of depreciation which reflects the nature of the fixed assets. This, however, is not an important issue in national accounts, where the concept of depreciation (or consumption of fixed capital) is not the same as in business accounts. The SNA concept of consumption of fixed capital (CFC) must reflect the cost of fixed capital used up in production, which is measured at current market price. The consumption of fixed capital is commonly calculated in national accounts using the perpetual inventory method (PIM) to replace depreciation included in business accounting. In many developing countries that are unable to calculate the SNA consumption of fixed capital for lack of time series data on fixed capital formation, business depreciation is used as a proxy.

#### **4.3.5. Provisions (exceptional items)**

The introduction of provisions is the result of the application of the principle of prudence. When the enterprise envisages charges or recognises depreciation, it must show these in the calculation of the profit/loss for the accounting year in progress, even if it is not yet able to determine the value of these with certainty.

Two types of provisions can be identified:

- Provisions for charges corresponding to an expense which the enterprise is certain to have to incur but for an amount that it does not know precisely; and
- Provisions for depreciation of assets corresponding to a reduction in value of assets such as machines, buildings, stocks, and amounts receivable, the amount of which is not known with any accuracy.

In the case of provisions for charges, the principle is as follows: the estimated charge is entered in the income statement for the current accounting year. When the charge has actually occurred, it is deducted from the income statement and replaced by its actual value.

Since the estimated value must appear for two accounting years, it is necessary to use the balance sheet. Two accounts are necessary, and sometimes three accounts are used:

- Two management accounts:

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<sup>41</sup> Chapter 2 includes a method to estimate consumption of fixed capital

- the transfer to provisions account which records the amount of the provision; and
  - the *write-back of provisions* account which records its cancellation – this is not always necessary.
- One balance sheet account, the provisions account.

The *write-back of provisions* account does not always exist and, in this case, the provision is credited to the expense account from which it originated. Provisions for depreciation of assets can follow the same system but in the balance sheet, they appear most often as a liability in order to determine net values, i.e. cost less accumulative depreciation (provision) as shown in the notes.

There are a number of different techniques that can be used to arrive at the best estimate of the amount of a provision, where the creditor does not wish to settle and where there is no market in obligations of the kind for which provision is being made. Assuming that it is possible to specify all the possible outcomes and their associate probabilities, the amount to be provided for an obligation could be estimated.

The 2008 SNA includes some small progress regarding the provisions, but does not give any general or consistent recommendation on “provisions”. The 2008 SNA, in paragraph 21.66 mentions that *“Two particular areas where the IFRS adopts approaches somewhat different from the SNA are in the area of the recognition of holding gains and losses as income and in the recording of provisions and contingent liabilities. Further examination of the IASB position could be helpful in refining the SNA treatment of these issues, if not by accepting the IASB position entirely, at least by showing reconciliation between their position and that of the SNA.”*

The main reason for which national accountants reject a systematic incorporation of provisions is the fact that provisions can appear, contrary to liabilities, in the balance sheet of one entity and not, at the same time, as a counterpart entry in the balance sheet of another entity.

The principle of the treatment of provisions is summarized in Annex 4 of the 2008 SNA, paragraph A4.42 *“In the SNA, liabilities and provisions relating to financial instruments are generally recognized in the main accounts only if there is a corresponding financial asset of equal value held by counter-party. However, it is recommended that certain provisions that do not satisfy this criterion, such as those for non-performing loans, should be recorded as memorandum items. Contingent liabilities are not recognized at all in the core accounts, except in the case of standardized guarantees.”*

#### **4.3.6. Consolidation of company accounts**

Another issue of importance for national accounts is the consolidation of business accounts of a parent company and its subsidiaries. When a corporation holds substantial voting rights in another company, the financial statements of the parent and subsidiary may be combined into what are termed *consolidated company accounts*. It is important for the purposes of compiling national accounts to follow the 2008 SNA recommendations, presented in paragraph 4.38 that *“each individual corporation should be treated as a separate institutional unit”*. The reason for the SNA to take this position is that groups of corporations and conglomerates are heterogeneous in activities and their size and composition may be continually shifting over time, as a result of mergers and takeovers, thus changing the classification of an institutional unit and, therefore, defeating the purpose of time series analysis. In order to study the relationships between output

and inputs, the netting out of intra-company transactions in consolidated accounts would not be appropriate since it distorts the relationships between output and inputs.

It is important to emphasize that accounts for the non-financial corporate sector cannot be compiled independently. They must be compiled in an integrated manner with other sectors of the economy. The confrontation of data from other sectors would result in more reliable indicators. For example, tax payable reported by the non-financial corporations must be confronted with the same data received by the Government which should be taken as more reliable. The second case is insurance expenses and claims. These are normally not reported separately in company accounts since the amounts payable and receivable may not be significant; therefore the information on insurance must be obtained from insurance companies.

#### 4.3.7. Holding gains/losses

Holding gains and losses represent one of the major difficulties in the transition from business accounts to national accounts. They may appear whenever elements from the income statement are deduced from elements valued in the balance sheet. For example, intermediate consumption of raw materials originates from a purchase and/or from a withdrawal from stock.

The valuations of assets at fair value provide a better picture of the balance sheet than valuations at historic cost but they also generate more data on holding gains/losses at the income statement level since each year this must include revaluations of balance sheet assets or liabilities.

The 2008 SNA distinguishes three concepts of holding gains:

- *Nominal holding gain* on a non-financial asset, on a financial assets and on a liability (see chapter 12, paragraph 12.72). It represents the value of the benefit accruing to the owner of that asset as a result of a change in its price over a period of time. A nominal holding gain that is negative is referred to a holding loss.
- *Neutral holding gain (loss)* over a period is the increase (decrease) in the value of an asset that would be required, in the absence of transactions and other changes in the volume of assets, to maintain command over the same amount of goods and services as at the beginning of the period (paragraph 12.73).
- *Real holding gain (loss)* is the difference between the nominal and neutral holding gains (losses) for the same asset over the same time period and represents the amount by which the value of an asset increases (decreases) over the neutral holding gain for the period, in the absence of transactions and other changes in the volume of assets (paragraph 12.74).

The basic identity linking balance sheets, transactions, other volume changes and nominal holding gains may be expressed as follows:

The value of the stock of the asset in the opening balance sheet valued at the date of the opening balance sheet,

*plus*

the value of the asset acquired, or disposed of, in transactions valued at the dates the transactions took place,

*plus*

the value of other changes in the volume of the asset valued at the dates the other volume changes are recorded as taking place,

*plus*

the value of the nominal holding gains on the asset,

*equals*

the value of the stock of the asset in the closing balance sheet, valued at the date of the closing balance sheet.

Within SNA holding gains include not only gains on “capital” such as fixed assets, land and financial assets but also gains on inventories of all kinds of goods held by producers, including work-in-progress, often described as “stock appreciation”. The withdrawal from stock must be valued at market price at the time it took place, while in company accounts no such rule would apply as it would be assumed that the enterprise permanently monitors the change in prices of raw materials in the market. The accounting system of the enterprise therefore values the withdrawal from stock at its historical cost, i.e. at the price of the goods item at the time it was purchased. The difference between the two prices is considered in national accounts as a *holding gain or a holding loss*.

Eliminating holding gains/losses on stocks is not easy as it requires the collection of numerous pieces of mostly supplementary accounting information and the use of numerous assumptions. The information collected must relate both to the nature of the products stocked and the change in prices in the course of the year. Since the information available on the nature of products tends to relate to sales and purchases rather than to the stocks themselves, it is necessary to base the estimates on models with assumptions. Despite the imprecision, this exercise is the price that has to be paid for being able to use the data from business accounts.

#### **4.3.8. Mergers and acquisitions**

Corporate restructuring implies appearance and disappearance of certain financial assets and liabilities. When a corporation disappears as an independent legal unit because it is absorbed by one or more corporations, all financial assets/liabilities including shares and other equity that existed between that corporation, and those that absorbed it, disappear from the SNA. This disappearance has to be recorded as changes in sector classification and structure in the other changes in the volume of assets accounts.

However, the purchase of shares and other equity of a corporation as part of a merger are to be recorded as financial transaction between the purchasing corporation and the previous owner. Replacement of existing shares by shares in the takeover or new corporation are to be recorded as redemptions of shares accompanied by the issue of new shares. Financial assets/liabilities that existed between the absorbed corporation and third parties remain unchanged and pass to the absorbing corporation(s).

Similarly when a corporation is legally split up into two or more institutional units, any new financial assets and liabilities (appearance of financial assets) are recorded as changes in sector classification and structure.



#### **4.3.9. Fines and penalties**

Fines and penalties are examples which may result in a provision being made in business accounts. For example, an enterprise causes pollution for which it has to pay a fine. As soon as the enterprise is able to estimate with the amount of this fine, it must make a provision in its accounts.

In national accounts, a fine corresponds to a current transfer. Transfers must be recorded at the date of their operative event. For example, compensation of employees is recorded on the date that employees perform their work and not on the date when they are actually paid. In the case of the example above, the pollution can be considered as the operative event but at this point the fine is not certain and a valuation of this is generally impossible. Other events can be considered as operative events, for example the discovery of the pollution by the authorities or a court ruling. In fact, national accounts take the date of the fine as the operative event.

The difference between the provision recorded in the accounts of the enterprise and the recording in national accounts is therefore twofold: firstly there is a difference in the date of recording and secondly there may be a difference between the estimated fine used to make the provision and the actual sum used by national accounts.

#### **4.3.10. Contracts**

Contracts are another example of how national accounts and business accounts can diverge. A contract entered into by two parties generates an obligation for at least one of the two parties corresponding to a right of the other party. In company accounts, according to IFRS standards, as soon as it is possible to accurately estimate the cost of cancelling the contract, the obligation of the enterprise must be considered as a non-financial liability and recorded in the accounts of the enterprise in the same way as a provision. Each obligation of an enterprise will necessarily correspond to a right of another agent.

In business accounts this right is not considered as an asset by application of the principle of prudence. An exclusivity contract made between two enterprises is an example of such a contract; it must be recorded under the liabilities of the enterprise granting the exclusivity but not under the assets of the enterprise benefiting from it. The recording under assets and liabilities is therefore not symmetrical in business accounts as only the liability is recorded.

In national accounts, the situation is the reverse. In fact, the system does not recognise non-financial liabilities, i.e. obligations from which it is possible to be released by making a payment, even when these can be valued in a reliable manner. On the other hand, national accounts do acknowledge assets generated by contracts when these have a market value.

Based on SNA methodology, obligations born out of a contract are only recorded in the accounts of the agents benefiting from them and not in the accounts of those on whom they are incumbent. The assets created on this occasion are considered as non-produced assets with no corresponding liability for another agent. This type of transactions does not create additional output to the economy or enter into intermediate consumption.

### 4.3.11. Globalisation

Globalisation is one of the major factors complicating the use of business accounts for the purposes of national accounts. In fact, the accounts must be drawn up on a national basis; the activity carried out beyond national borders must be excluded from the accounts, in order to be truly useful for national accounts compilation. But, in practice this is not always the case, particularly when the enterprises have establishments around the world. The existence of multi-national groups poses valuation problems, as exchanges between subsidiaries which can be made on the basis of prices not observed in the open market and set to minimize global tax burden.

When the activity of the enterprise extends beyond the national territory, adjustments are necessary based on the business accounts. It is useful that enterprises provide the accounting database, either with accounts prepared on a national basis or the details necessary to make adjustments. When the accounts are collected from enterprises by the tax authority, the latter generally requires that the data are provided on a national basis, allowing the calculation of the tax on profit and consequently, its use for national accounts compilation.

### 4.4. Compilation of national accounts from company accounts: non-financial corporations

The financial statements provides almost all the information necessary for the compilation of national accounts for non-financial corporations, based on SNA methodology. Usually, more detailed information is needed from enterprises than is normally published for public users.

The procedure for compiling national accounts based on business accounts includes the followings steps:

- Classifying the items of the income statement into national accounts transactions;
- Assembling the reclassified items into intermediate accounts (elaboration of “*bridge tables*”) that are conceptually quite close to the SNA;
- Adjusting the items in the intermediate accounts to make them fully compatible with the SNA concepts.

#### 4.4.1. Classifying the items in the income statement into SNA transactions

Each item included in the financial statements of non-financial units should be classified in national accounts indicators. This is done by national accountants after a deeply analysis of business accountings data. Identification and estimation of the following SNA categories is most important:

- a) Output is a national accounts concept. It includes both primary output and secondary outputs. Some secondary outputs such as rentals are included in business accounts in category for other income.

Based on data from business accounting, the output can be roughly calculated as follows:

*Output = Output sold + Output held as inventory + Capitalised output + Sales of goods bought for resale – Purchases of goods bought for resale + Changes in stocks of finished and semi-finished products + Changes in stocks of goods bought for resale + Other operating income*



- b) Intermediate consumption requires one to identify in the cost of goods and services used up in the production process. Basically, the identification task requires removing from the above expenses labour costs, depreciation, other taxes on production, property income, current transfers, capital gains or losses.

*Intermediate consumption = Purchases of raw materials and supplies – Changes in stocks of raw materials and supplies + Other purchases and external charges + Other operating costs*

- c) Compensation of employees includes wages and salaries, and other compensation relating to work and some payments by corporations which are not work-related such as payments not involving any established funds for special needs of employees and their dependents, such as educational allowances, health, death and accidents benefits, pensions, etc.
- d) Depreciation and depletion must be identified since they are not treated as intermediate consumption by the national accounts.
- e) Other taxes on production include property taxes, levies on use of equipment, payment for business licenses, stamp taxes, taxes on pollution, taxes on employment, etc. Other subsidies on production are the opposite of the taxes mentioned above. Business accounts are generally operated exclusive of deductible VAT so that the information on input VAT and output VAT often only appears in the notes to the accounts. Other production taxes and other production subsidies appear in the income statement. The tax on profit paid during the course of the financial year may be found either in the income statement of the previous financial year, or in the sources and uses of funds statement for the financial year or in the appended tables.
- f) Current transfers include charitable contributions, insurance premiums, insurance claims, fines and penalties. Current transfers may be classified in business accounts as operating expenses, other income and extraordinary gains and loss. Minor compensation payments not covered by insurance and awarded in or outside of court are also included here.
- g) Capital transfers rarely appear in business accounts. However, in some developing countries, they may appear, as corporations receive donations of equipment, or funds to purchase equipment, large gifts or have debts written off voluntarily by creditors. In developed countries, they include investment grants paid by central, state or local governments to the enterprises; commercial debt cancellation by direct bilateral agreement between enterprises or through indirect compensation paid by government. Capital transfers should also include irregular and infrequent taxes on the values of assets or net worth of corporations and on capital transfers. In addition, major compensation payments for serious and extensive damage not covered by insurance and awarded in or outside of court are included here.
- h) Property income includes interests, dividends, rents on non-produced assets, equity earning. Interest received and paid appears in the income statement, and must be adjusted for financial intermediation services indirectly measured (FISIM). Income received from investment must also be increased by commission deducted at source. Dividends received appear on the credit side of the income statement. Conversely, dividends paid by an enterprise appear neither on the income statement, nor on the

balance sheet, and it is therefore necessary to consult another document such as the sources and uses of funds statement. Reinvested earnings on direct foreign investment cannot be gleaned directly from either the balance sheet or the income statement, and can only be estimated on the basis of supplementary information about company shareholders. Property income allocated to policyholders is deducted from insurance premiums paid by an enterprise by applying a ratio calculated from the accounts of insurance companies.

- i) Revaluation includes capital gains and loss, write-downs of inventories, bad-debt write-offs when they result from a unilateral decision, if not they are recorded as capital transfers.
- j) Other changes in volume include depletion of natural resources.

#### **4.4.2. Elaborating the bridge tables**

The intermediate accounts derived from financial statements are based on the bridge tables realised to link data from business accounts to national accounts indicators.

The format for the intermediate accounts of a non-financial corporation presented in the chapter as example has the following characteristics:

- (a) The corporation is involved in either the production (or manufacturing) of goods and the marketing and selling of its own products as well as products produced by others. Because of the activity of reselling products produced by other producers, the output of this corporation must include trade margins, which are calculated together with manufactured output by deducting the cost of goods bought for resale from the net sales.
- (b) Only the output of the corporation as a whole is of concern here and no attempt was made to separate out its discrete outputs. Otherwise, the identification of trade margins would require the separation of net sales of goods bought for resale from other net sales.
- (c) Discontinued operations of segment and extraordinary gains or losses net of taxes are assumed to be non-existent, otherwise the information from these two categories would have to be broken down into various components and included in either other incomes, other expenses, taxes on income or capital gains net of loss.

#### **4.4.3. Adjustment of intermediate accounts**

After establishing the rough 'bridge table', the transition from business accounting to national accounts may be completed by making some adjustments to base data. These adjustments are categorised as follows:

- Conceptual adjustments;
- Adjustments to allow coherence with the accounts of other sectors; and
- Adjustments for exhaustiveness

##### **Conceptual adjustments**

Conceptual adjustments are required because businesses accounts do not use the same concepts and valuation methods as national accounts. These adjustments can differ in different countries as

a function of their specific characteristics and the chart of accounts adopted by their enterprises, although it is possible to identify a number of these which will occur the most frequently.

***a. Conceptual adjustments required for the calculation of output***

It is important to note that output will exclude certain items; some of them may be included within the company's turnover or total income (which includes other operating income), as for example: grants receivable, interest receivable and dividends receivable. To follow the 2008 SNA concepts, these values should be identified and adjustments realised.,

The most common adjustments refer to:

- *Adjustment for the transition to the basic prices*

Turnover of enterprises is generally net of VAT but often includes some taxes on products. Conversely, subsidies on products are rarely included in the turnover. It is therefore necessary to make an adjustment to the data from company accounts by deducting taxes on products and adding subsidies on products in order to arrive at the basic price. Often estimates on taxes and subsidies on products are not available from company accounts.

- *Adjustment for deliveries between establishments of the same enterprise*

Such deliveries are not usually the object of a sale and although they do not appear in the accounts system of the enterprise they must nevertheless be recorded in the national accounts when they correspond to an output of one establishment delivered to another establishment, forming intermediate consumption of the latter.

The transactions between two establishment belonging to the same enterprise are presented in the 2008 SNA, paragraph 6.122. *“if a product is delivered by one establishment to another within the same enterprise, the delivery is recorded as output of the first establishment and intermediate consumption of the second only when the second establishment assumes the responsibility for making the decisions about the level of supply and prices at which the output is delivered to the market. When this is not the case, the output of the first establishment is shown as entering inventories while the second establishment delivers a processing service and charges for it. If a production account is being compiled for the enterprise, in the first case it may be preferable to show the product as both output and intermediate consumption of the enterprise rather than to consolidate it out. In the second case, the output of the enterprise will be the value of the product as produced by the first establishment plus the processing fee for the second.”*

- *Adjustment for output reflecting margin earned on distribution type activity*

Apart from the wholesale and retail distribution industries, certain activities such as travel agencies have their output calculated in national accounts using a margin concept. In this case it is necessary to deduct from turnover the cost of sales.

- *Adjustment for own account output of research and development, software and data bases*

The SNA includes in gross fixed capital formation (GFCF) the own account output of research and development, software and data bases. The value of this production is not included the

turnover of the enterprises and an estimation of it should be realised and integrated in national accounts.

- *Adjustment for sales of land*

The turnover of certain enterprises such as property developers includes sales of land and these sales must be removed from the calculation of output based on the 2008 SNA methodology. The acquisition less disposal of land is included in the capital account under the non-produced non-financial assets

- *Adjustment for inventory (stock) valuation*

In business accounts, the changes in inventories are measured by the difference between the closing stock value and the opening stock value. In national accounts, the change in inventories (stocks) corresponds to the difference between entries into and withdrawals from stock, these being valued at the time they take place.

It is generally not possible to calculate the changes in stocks in this way based on the data included in the financial statements of enterprises. For the estimation, additional calculations, based on a number of assumptions are needed.

In terms of physical quantities, the following equation holds:

$$\text{Opening stock} + \text{entries} = \text{Withdrawals} + \text{closing stock}.$$

This identity simply means that, as resources, the goods can originate either from the opening stock, or from entries and under uses they are either withdrawals or are in the closing stock.

This equality can also be written as:

$$\text{Entries} - \text{withdrawals} = \text{Closing stock} - \text{opening stock}.$$

This equality shows that if all its elements are valued at the same price then the calculation of the changes in stocks by the difference between the closing stock and the opening stock gives the same result as a calculation by the difference between the entries and withdrawals. In other words, in the best case of a unique price, it is possible to deduce the changes in stocks for national accounts purposes from that of business accounts.

Assuming that entries and withdrawals take place regularly during the accounting year, the average price over the period of the entries and withdrawals is the same, offering the best case scenario. In the case of output held as inventory, for example, the average price of entries and withdrawals is also the average producer price. If the closing and opening stocks taken from the balance sheets of enterprises are valued at the average producer price, it is then possible to deduce from this the changes in stocks as the difference between these two values. To do so it is necessary to know three prices: the prices of the closing and opening stocks used by the company accountants, and the average basic producer price.

This principle is easy to apply when the goods can be identified individually. This is no longer the case when the goods held in stock are fully interchangeable and acquired at different prices, and so a number of stock valuation methods have been developed: First-In First-Out, (FIFO), Last-In First-Out (LIFO), etc. Since these methods all provide different results, it is necessary that the national accountant knows which method is used by the enterprise in order to correctly interpret the information on its stocks.

The prices used by the company accountants depend on the method applied, but in all cases, the stocks are valued at producer price whereas the basic price, including a profit element. An initial adjustment must be made at this level. The second adjustment is connected with the fact that prices have fluctuated during the year, so that the average price for the period is different from the opening and closing prices. It is then necessary to deflate the stocks by price indices in order to bring them back to the average prices. The main difficulty in applying this method stems from the absence of a breakdown of stocks by products. A best estimate must therefore be made of this from the available information. More often than not, no information is directly available on prices at enterprise level and the problem has to be dealt with globally, using price indices published by the statistical office.

A simple example for the calculation of changes in inventories using data on book value of inventories is provide to the Annex attached to this chapter.

- *Adjustment for capitalized output*

Capitalised output is recorded in company accounts on the basis of the production costs. For the transition to national accounts, it is therefore necessary to add an element corresponding to operating surplus.

- *Adjustment for ownership transfer costs*

In business accounts, acquisitions of tangible or intangible fixed assets must be valued by their cost plus the costs incurred for the transfer of the ownership. These costs include various elements, such as wages and salaries and intermediate consumption. When the income statement is presented by nature, these costs are first recorded on the debit side by nature and then transferred to the balance sheet through the intermediary of a management account, the capitalised costs account. They are therefore accounted for three times:

- On the debit side of the income statement;
- On the credit side of the income statement; and
- On the debit side of the balance sheet as components of the capital cost.

In national accounts, wages and salaries cannot directly add any value to assets as the gross fixed capital formation is a use of production. All expenditure on personnel costs corresponding to installation costs must therefore be considered as an own account production of capitalised goods by the enterprise.

#### ***b. Conceptual adjustments for the calculation of intermediate consumption***

The estimates of intermediate consumption exclude certain items which are included within operating costs or expenditure side in business accounts. The most common are the following: taxes on production and some taxes on products; bad debts; fines and penalties; depreciation; interest and dividends payable; and value of insurance premiums payable.

- *Adjustment for Insurance premiums*

Insurance premiums payable by enterprises are part of their expenditure, but national accounts methodology requires that these are split into three elements: net premiums; insurance service; and premium supplements.

This distribution must be performed on the basis of the distribution taken from the accounts of the insurance companies. Payment of insurance premiums includes one part which is a service charge paid to insurance companies and another part which is a current transfer from the buyer of the insurance policy to claimants. Again, given that the ratio of insurance service charges to insurance premiums is known, it is possible to estimate insurance service charges paid by the corporation. Service charges paid are treated as a part of intermediate consumption by the corporation. The residual is treated as a current transfer from the corporation to insurance companies. With this adjustment, the value added of the corporation is adjusted downward from the value of the intermediate account.

- *Adjustment for Leasing*

As the business accounts treats leasing like a rental, an adjustment must be made to the charges payable to the leasing companies in order to remove the part considered by the national accounts as a payment of interest and redemption of loans.

The payments made for produced assets under an operating lease are referred to as rentals and are recorded as intermediate consumption (payments of services). The character of an operating lease is best described in relation to equipment since operating leases are often for vehicles, cranes, drills, etc.

- *Adjustment for Commissions included in interest*

Some commissions are included in the interest payable by enterprises or deducted from that which they receive. The most important of these correspond to FISIM but it is also necessary to take account of commissions deducted and interest payable by the collective investment undertakings.

- *Adjustment for Land purchase*

The expenditure of enterprises in certain activities such as property developers may involve land purchase. Such land purchases must be removed from intermediate consumption.

- *Stock valuation adjustment*

The changes in stocks of raw materials must be the subject of adjustments similar to those made to the changes in stocks of finished products.

- *Adjustment for Costs associated with the acquisition of assets*

In national accounts, GFCF is valued at purchasers' prices, which include installation costs and the ownership transfer costs. In company accounts, installation costs are generally considered as incidental costs and are thus included in the purchasers' price of fixed assets. As explained in the previous section on adjustments to output, these costs must normally be considered as elements of the own account output of the enterprise. When the income statement is presented by nature, expenses whose nature corresponds to intermediate consumption are generally first recorded under charges before being transferred to the balance sheet. Where this



is not the case and these expenses are incorporated in the fixed assets without passing through the balance sheet, they must be added to intermediate consumption.

- *Adjustment for Bad debts*

Allowance for bad debts is an estimate of the corporation on the basis of its historical record or best guess for the uncollectible credit sales. It is treated both as an expense in the accounting period where sales take place and as a reduction from the face value of accounts receivable in the balance sheet. Allowance for bad debts to meet regulatory or supervisory requirement is not recognized as a flow to be accounted in SNA and therefore, should be disregarded. Other operating costs may include bad debts and therefore it is necessary to exclude them from intermediate consumption.

### **Adjustments to achieve coherence with the accounts of other sectors**

National accounts require coherence between all institutional sectors. As example, taxes and subsidies, valued on the basis of accounts of enterprises must be coherent with those receivable by or payable by general government. Due to the quality of data sources used, indicators of certain institutional sectors are more reliable and are used to adjust other sectors. For the non-financial sector, the main adjustments are for the following items:

- *Taxes and subsidies*

Business accounts are generally operated exclusive of deductible VAT so that the information breaking down input VAT and output VAT are often not available.

Other taxes on production and other subsidies on production appear in the income statement as appropriate. Company accounts do not distinguish between taxes on products from taxes on production, and likewise for subsidies.

The tax on profit, for example corporation tax, shown in the income statement will only be payable in the course of the following accounting year, i.e. more often than not the following year. The income statement would show the tax payable inclusive of deferred tax and other adjustments. The notes to the accounts would show the tax payable on the profits for the year, and the cash flow statement would show the tax payable in the accounting period.

- *Property income*

Interests receivable and payable are recorded in the income statement and must be adjusted for FISIM. The income receivable by investment undertakings must also be increased by commissions deducted at source.

Dividends receivable are included on the credit side of the income statement. Conversely, dividends payable by the enterprise appear neither in the income statement nor the balance sheet. They are recorded on a cash basis under IFRS rules and differ from the principles of accrual of national accounts.

Reinvested earnings on direct foreign investment cannot be found directly either from the balance sheet or the income statement, and can only being estimated on the basis of supplementary information on the shareholders in the enterprise.

Property income allocated to policy holders is deducted from insurance premiums payable by the enterprise by application of the ratios taken from the accounts of the insurance companies.

In practice, the coherence between institutional sectors is never achieved automatically for a number of reasons and a rule is needed in order to achieve it. This is based on the fact that normally information relating to general government is more reliable than that drawn from the statistics of enterprises, and so it is the data drawn from company accounts that have to be adjusted.

### **Adjustments for exhaustiveness**

Adjustments for exhaustiveness may be related to several causes, as: absence from statistical files; exemption from tax and social declarations; and evasion. Examples of adjustments affecting output and intermediate consumption, as appropriate, include:

- *Evasion regarding output sold and sale of goods for resale*

Enterprises usually have an interest in underestimating their sales either for tax evasion (which is illegal) or tax avoidance (by using strategies which are legal), and so an estimation of this under-declaration is necessary which should be as far as possible based on information provided by the tax offices. In some countries, underestimating the purchases will inhibit businesses ability to reclaim VAT either on current expenditure and/or capital expenditure, whether they are treated as exempt or not.

- *Income earned-in-kind*

Income in kind corresponds to that part of their output that enterprises supply free of charge to their employees although there may be a cost in terms of tax payable on the benefit received for the employee. Similarly, there may be on-going costs to the employer for providing the benefit.

When this income is not recorded in the company accounts, an adjustment must be made both to the output and the compensation of employees. Where employees are housed free of charge it is also necessary to estimate a property rentals output if this has not already been taken into account in the company accounts.

- *Tips*

When employees receive tips from customers of the enterprise these must be considered as part of the turnover and consequently included in the output estimation. So, that part of tips that is not recorded in the company accounts must be subject to adjustment.

- *Evasion on purchases intended for intermediate consumption*

In order to limit their tax burden enterprises have an interest in overstating their purchases. However, as pointed out for purchases of goods, enterprises must also take into account that fiscal controls are very often performed on the basis of ratios and that an understatement of sales will be all the more credible if it goes hand in hand with an understatement of purchases.

The national accountants must therefore take account of these two elements when assessing the correction to be made to intermediate consumption.



- *Undeclared employment*

A certain number of enterprises use undeclared workers who do not meet the criteria of employees and must therefore be classed as self-employed persons. In this case the services they provide for the enterprises must be considered as intermediate consumption.

**Box 4.1: Non-financial corporations data in Burkina Faso: Statistics and tax returns (DSF) from formal firms**

The National Statistics Office (NSO) set up with the Ministry of Finance an agreement that allows the NSO to receive a copy of the DSF. As submission of DSF is through a single office this allowed good coverage of enterprises in the formal sector.

DSFs contain all accounts of a company in one year. Companies are required to file the DSF of year N no later than April 30 of year N + 1.

An input mask of DSF with a set of coding is done on ACCESS (software) where queries allow the conversion of the business accounts item to national accounts concepts.

***Adjustments in the national accounts based on administrative data***

The main adjustments made by using data from non-financial corporations accounting statements are:

Adjustment of taxes by industry:

Because the coverage of DSF is not exhaustive, the amount of taxes on production collected in DSF available is different from the amount reported by the Government. The total amount of tax reported by the Government serves as reference and shared across industries by using the combined structure of the base year and the reported taxes by the different industries during the current year through DSF.

Adjustment of wages and number of employees:

The objective is to ensure that all workforce and wages for all reporting companies are accounted for. For companies that do not report on their number of employees and wages, we impute these values by using as reference the ratios of wage per capita and output per capita by industry calculated for years N-1 and N. Sometimes we used the figures of the previous year of the company or imputed the average salary of the industry.

Adjustment on property income:

The amounts of property income (received and paid) reported by the non-financial corporation (NFC) are adjusted to those reported by the financial system (banks and insurance companies).

Adjustment on miscellaneous current transfers:

Arbitrations are conducted during the compilation of Integrated Economic Accounts Table (IEAT) through the matrix of transfers (received / paid) between institutional sectors. The information generally available is the total amount of current transfers, the amount of some institutional sectors such as Government and financial corporations is known. After removing the amount of current transfers of known sectors in total amount, the residual is shared between the NFC and households.

#### 4.4.4. Numerical example

**Table 1. Simplified bridge table for non-financial corporations**

No. Crt	Financial statement indicators	Financial Statement	Currency	SNA aggregates
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		(code)		
1	Net turnover	IS	32 200	P.1
2	Other income (e.g. from licenses)	IS	500	P.1
3	Own production of non-mobile assets	IS	80	P.1
4	Changes in stocks of finished products and work-in-progress	IS	300	P.1
5	Cost of goods bought (for resale)	IS	100	P.1
6	Cost of sales (goods & services)	IS	15 000	P.2
7	Other operating expenses (less personnel expenses)	IS	5000	P.2
8	Increase in provisions (they should be removed, are not real expenses)	CFS	-300	- P.2
9	Changes in inventories	CFS	350	P.52
10	Investment in tangible fixed assets	CFS	4 600	P.51
11	Disinvestment tangible fixed assets	CFS	-200	P.51
12	Personnel expenses	IS	6 800	D.1
13	Depreciation of buildings and equipment	IS	650	P.51
14	Interest payable (net)	IS	400	D.41
15	Interest receivable (net)	IS	100	D.41
16	Dividends Paid	CFS	1 500	D.4
17	Dividends Received	CFS	500	D.4
18	Profit taxes current year	IS	800	D.5

19	Profit taxes previous year	IS	700	D.5
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From the numerical example, the main indicators can be estimated:

$$\text{Output} = 32\,200 (1) + 500 (2) + 80 (3) + 300 (4) - 100 (5) = 32\,980$$

$$\text{Intermediate consumption} = 15\,000 (6) + 5\,000 (7) - 300 (8) = 19\,700$$

$$\text{Gross value added} = \text{Output} (32\,980) - \text{Intermediate consumption} (19\,700) = 13\,280$$

After establishing the rough ‘bridge table’, the transition from business accounting to national accounting may be completed by making the necessary adjustments to base data. Adjustments are defined based on the current situation of each country and the characteristics of data obtained from the financial statements of enterprises.

**Table 2. Conceptual adjustments**

	<b>Output</b>	<b>Intermediate Consumption</b>	<b>Capital formation</b>
Transition to the basic prices			
- Other taxes on products	-		
-Subsidies	+		
Deliveries between establishments of the same enterprise	+	+	
Own account output of software and other intellectual products	+		+
Own account output of research and development	+		+
FISIM		+	
Holding gains for inventories	+/-	+/-	+/-
Exhaustiveness	+	+	+

Following the numerical example, the adjustments made to the output and intermediate consumption are presented in the table 3.

**Table 3. Adjustments**

Currency

	Output	Intermediate consumption	Gross value added
Total accounting	32 980	19 700	8 280
Conceptual adjustments:			
-Taxes on products	-1 800		
-Subsidies on products	80		
-Holding gains	-310	400	
-FISIM allocation		150	
-Own account output of software and other intellectual products	200		
-Own account output of research and development	400		
-Intra-unit deliveries	300	230	
Exhaustiveness adjustments:			
-misreporting	2 100	650	
-VAT fraud	900		
TOTAL -national accounts indicators	34 850	21 130	8 720

The sequence of accounts established based on the indicators from the “bridge tables” and the adjustments are presented below:

### I: Production account

Resources		
P.1	Output	34850
P.11	Market Output	34250
P.12	Output for own final use	600
P.13	Non-market output	0
Uses		
P.2	Intermediate Consumption	21130

B.1g	<i>Value added, Gross</i>	8720
K.1	Consumption of fixed capital*	400
B1n	<i>Value added, Net</i>	8320

\*Consumption of fixed capital included in the production account is in lie with SNA methodological requirement and differ of the depreciation of buildings and equipment presented in the accounting system of enterprises.

### II.1.1: Generation of income account

Resources		
B.1g	Gross Value added, Gross (GDP)	8720
B1n	<i>Value added, Net (NDP)</i>	8320
Uses		
D.1	Compensation of employees(CE)	6800
D.11	Wages & Salaries	5700
D.12	Employers' social security contribution	1100
D.121	Employers' actual social security Contribution	
D.122	Employers' imputed social Contribution	
D.29-D.39	Other Taxes Less Subsidies On Production **	450
B.2g	Operating surplus , Gross	1470
B.2n	<i>Operating surplus , Net</i>	1070

\*\*Taxes on production and subsides are provided by government accounts.

### II.1.2: Allocation of primary income account

Resources		
B.2g	Operating surplus, gross	1470
B.2n	<i>Operating surplus , Net</i>	1070
D.4	Property income receivable	600
D.41	Net interest receivable	100
D.42	Distributed income of corporations	500
D.421	Dividends paid	500
Uses		
D.4	Property income payable	1900
D.41	Net interest payable	400
D.42	Distributed income of corporations	1500

D.421	Dividends received	1500
B.5g	Balance of primary incomes, gross	5170
B.5n	<i>Balance of primary incomes, net</i>	4770

## II.2: Secondary distribution of income account

Resources		
B.5g	Balance of primary incomes, gross	5170
B.5n	<i>Balance of primary incomes, net</i>	4770
Uses		
D.5	Current taxes on income, wealth, etc.	800
B.6g	Disposable income, gross	4370
B.6n	<i>Disposable income, net</i>	3970

## II.4: Use of income account

Resources		
B.5g	Balance of primary incomes, gross	4370
B.5n	<i>Balance of primary incomes, net</i>	3970
Uses		
D.8	Adjustment for the change in pension entitlements.	0
B.8g	Saving, gross	4370
B.8n	<i>Saving, net</i>	3970

## II.1: Capital account

Changes in liabilities and net worth		
B.6n	<i>Saving, net</i>	3970
Uses		
P.5g	Gross capital formation	5440
P.5n	Net capital formation	5140
P.5Ig	Gross fixed capital formation	5000
P.5Ic	Consumption of fixed capital	-400
P.52	Change in inventories	440
B.9	<i>Net lending (+)/net borrowing (-)</i>	-1170

#### 4.4.5. Summary

Within this chapter explanations on how business accounts can be used in the preparation of the full sequence of accounts of the non-financial sector according to the 2008 System of National Accounts have been presented.

Business accounts and national accounts describe the economic transactions, but their analytical objectives are different. Business accounting is realized at the level of the microenterprise having as objective to support the enterprise's management in its control of production and financial management, while national accounts deals with the macro economy of a country, describing the macroeconomic phenomena. As a consequence, the structure of business accounts differs from that of national accounts, and as both have different analytical approaches, the balancing items identified in business accounting differ from those in the SNA. In this way, business accounts present the profit and loss statements, balance sheets and an analysis of the changes in the net equity of an enterprise; national accounts distinguish broadly between income and use of income accounts, capital and financial accounts and balance sheets.

There are many conceptual differences between business accounts and national accounts and therefore there is need to do many adjustments in order to link them. Some of these adjustments could be performed directly using the information from company accounts, but others may be executed only when taking into consideration the information provided by other sectors of the economy. For this reason, a conceptual tool has been created by national accountants: the *intermediate system of enterprises* which do the translation from business accounts to national accounts concepts. In spite of the differences between business accounts and national accounts the capacity of using directly company accounts to compile national accounts is obviously large.

This chapter has focused on the use of business accounts for national accounts purposes. It presents all necessary details that need clarification but not every detail in the SNA accounts or in business accounts is shown. For more information, readers are advised to consult the national practices on business accounting and the information on international differences in business accounting.

It is clear that the compilation of the non-financial institutional sector in national accounts from business accounts is possible and contributes to the improvement of national accounts quality.

## Estimation of changes in inventories

The example presents the calculation procedure and available information to estimate changes in inventories, if book values of inventories used by company accounts are based on First in, first out (FIFO) method.

Tables 1 and 2 include data available and used to estimate changes in inventories. Tables 3 to 6 show the calculation steps and procedures.

**Table 1. Company records for inventories**

Year t	Opening stock	Closing stock	Change
Q1	1200	1725	525
Q2	1725	1375	-350
Q3	1375	1900	525
Q4	1900	1550	-350
Annual	1200	1550	350

**Table 2. Price indices**

Months	Year t-1	Year t
January	97.70	103.84
February	98.11	104.59
March	98.35	105.39
April	98.80	105.99
May	99.23	106.13
June	99.41	106.63
July	100.13	107.18
August	100.37	107.10
September	101.40	107.69
October	101.58	107.85
November	102.12	108.34
December	102.80	108.86
Annual average	100.00	106.63

Note that the price indices refer to the product or product group included in inventories.

In table 3, the weights under FIFO method of inventory valuation are derived on the basis of estimated holding period of two months assuming equal proportions of inventories acquired in each of the two previous months.



The deflator for book value at a specific date is derived as weighted average of monthly price indices. For instance the deflator for the opening stock of first quarter of year t is a weighted average of price index November and December of year t-1.

**Table 3. Deflator estimation**

	Weight	31 Dec. year t-1	31 Mar. year t	30 June year t	30 Sep. year t	31 Dec. year t
Holding period of 1-2 months	0.5	102.12	104.59	106.13	107.69	108.34
Holding period of <1 months	0.5	102.80	105.39	106.63	107.85	108.86
Deflator for book values	1	102.46	104.99	106.38	107.77	108.6

Table 4 shows the calculation of the opening and closing stock for each quarter at the annual average price of year t. The constant value at a specific date is obtained by dividing the book value with specific deflator calculated for the respective date.

**Table 4. Calculation of opening and closing inventories at constant prices of year t-1**

	31 Dec. year t-1	31 Mar. year t	30 June year t	30 Sep. year t	31 Dec. year t
Book value inventories	1200	1725	1375	1900	1550.00
Deflators for book value	102.46	104.99	106.38	107.77	108.60
inventories at constant prices of year t-1	1171.19	1643.01	1292.54	1763.01	1427.26

The changes in inventories at constant prices for each quarter is calculated as closing stock at constant prices minus opening stock at constant prices. The inventory valuation adjustment is calculated as difference of the changes in inventories at book value and changes in inventories at constant prices

**Table 5 Change in inventories at constant prices of year t-1**

Year t	Opening stock	Closing stock	Change	Inventory valuation adjustment
Q1	1171.19	1643.01	471.82	53.18
Q2	1643.01	1292.54	-350.47	0.47
Q3	1292.54	1763.01	470.47	54.53
Q4	1763.01	1427.26	-335.75	-14.25
Annual	1171.19	1427.26	256.07	93.93

In table 6, the average price index for the first quarter of year t is a simple arithmetic mean of the price indices of the first three months of the year t. The change at current price is obtained by multiplying the change at constant price with the average price index of the corresponding periods. The holding gain value in the sense of the SNA is calculated as the difference between changes at current prices and changes at constant prices.

**Table 6 Change in inventories at current prices**

Year t	Average price index	Change at constant prices	Change at current prices	Holding gain
Q1	104.61	471.82	493.57	21.75
Q2	106.25	-350.47	-372.37	-21.90
Q3	107.55	470.47	505.99	35.52
Q4	107.94	-335.75	-362.41	-26.66
Annual		256.07	264.78	8.71

## References:

*Quarterly National Accounts Manual; Concepts, Data Sources, and Compilation* by Adriaan M. Bloem, Robert J. Dippelsman, and Nils Ø. Mæhle, IMF, 2001

## Chapter 4. Use of external trade statistics for national accounts

This chapter describes the integration of external trade statistics in national accounts and provides a correspondence between balance of payment and the rest of the world account.

The text for this chapter has mainly been sourced from the following documents:

- 1) *The System of National Accounts 2008*, European Commission, IMF, OECD, UN, World Bank, 2009
- 2) *Balance of Payments and Investment Position, Sixth Edition*, (BPM6) 2009, International Monetary Fund;
- 3) *International Merchandise Trade Statistics: Concepts and Definitions 2010*, United Nations
- 4) *Essential SNA: Building the basics*, European Commission, Eurostat, 2013

### 5.1. Introduction

A full implementation of the 2008 System of National Accounts (2008 SNA) is based on Information from the international accounts. The SNA measures the activity within the domestic economy; in addition to it, the SNA records the exchanges between the domestic economy and the rest of the world. The non-resident units engaged in transactions with units resident in the domestic economy formed a distinct institutional sector of the economy; the exchanges (flows) of all resident units with non-resident units (and claims of one set of units on the other) are recorded in the Rest of the World (RoW) sector of the 2008 SNA.

International accounts are closely linked to the national accounts system; data on the balance of payments (BoPs) are compiled first and subsequently incorporated in relevant external account components of the SNA rest of the world account. This integration of the two systems is made possible because the underlying accounting systems are identical though different terminology and forms of presentation are sometimes used.

The main data source that describes the international transactions used for building accounts for the rest of the world sector of SNA is the Balance of Payments. The 2008 SNA uses the same macroeconomic framework as the 'Balance of Payments and Investment Position Manual' 6th edition (BPM6). Appendix 7 of BPM6 provides a summary account of the complete concordance between the 2008 SNA and the BPM6 in respect to residence, valuation, time of recording, conversion procedures, and coverage of flows and stocks.

#### Definition

The balance of payments is a statistical statement that summarizes transactions between residents and non-residents during a period. It consists of the goods and services account, the primary income account, the secondary income account, the capital account, and the financial account.

Source: "Balance of Payments and Investment Position Manual" 6th edition (BPM6), chapter 2: *Overview of the Framework*.

## 5.2. Accounting principles and concepts

### 5.2.1. Economic territory

The economic territory represents the area under the effective economic control of a single government. It includes the land area including islands, airspace, territorial waters and territorial enclaves in the rest of the world (such as embassies, consulates, military bases, scientific stations, information or immigration offices, that have immunity from the laws of the host territory) physically located in other territories.

The economic territory includes also special zones as free trade zones and offshore financial centres, which are under the control of the government even though different regulatory and tax regimes may apply. It excludes international organizations and enclaves of other governments that are physically located in the territory.

Economic territory has the dimensions of physical location as well as legal jurisdiction; so that corporations created under the law of that jurisdiction are parts of that economy.

### 5.2.2. Residence

The accounts record transactions between residents and non-residents of a country. The primary criterion for deciding whether a transaction belongs in the balance of payments is the residency of the two actors involved in the transaction. The residency is different from citizenship. As an example, transactions between two Tunisian citizens, one living in Tunis and one abroad, are recorded in the balance of payments, but the transactions between a Tunisian and a Moroccan citizen both residing in Tunis are not relevant for the balance of payment.

#### *Definition*

The residence of each institutional unit is the economic territory with which it has the strongest connection, expressed as its center of predominant economic interest.

*Source: "Balance of Payment and Investment Position Manual", 6<sup>th</sup> edition, chapter 4: Economic Territory, Units, Institutional Sectors and Residence.*

An institutional unit is resident in an economic territory when there exists, within the economic territory, some location, dwelling, place of production, or other premises on which or from which the unit engages and intends to continue engaging, either indefinitely or over a finite but long period of time, in economic activities and transactions on a significant scale. The location need not be fixed so long as it remains within the economic territory. Each institutional unit is a resident of one and only one economic territory determined by its center of predominant economic interest

A special attention is paid for the classification of units who develop their activities in different countries. For the units which are not resident in one country, but have substantial operations over a significant period in another economic territory, with no separate legal entity for those operations, a branch may be identified as an institutional unit. It is identified for statistical purposes because the operations have a strong connection to the location of operations in all ways other than incorporation.

In order to identify these branches as separate institutional units, several indications of substantial operations are required in order to separate them from the rest of the entity and to avoid creating numerous artificial units. A branch is recognized in the following cases:

- It provides a complete set of accounts, including a balance sheet. The availability of separate records of the branch indicates that an actual unit exists and makes it practical to prepare statistics.
- The branch undertakes or intends to undertake production on a significant scale that is based in a territory other than that of its head office for one year or more, having two situations: (i) the production process involves physical presence, then the operations should be physically located in that territory, or (ii) the production does not involve physical presence, such as some cases of banking, insurance, other financial services, ownership of patents, and “virtual manufacturing,” the operations should be recognized as being in the territory by virtue of the registration or legal domicile of those operations in that territory.
- The branch is recognized as being subject to the income tax system, if any, of the economy in which it is located even if it may have a tax exempt status.

The identification of branches has implications for the statistical reporting of both the parent and branch. The operations of the branch should be excluded from the institutional unit of its head office in its home territory and the delineation of parent and branch should be made consistently in both of the affected economies. Each branch is a direct investment enterprise and most commonly arise for financial and nonfinancial corporations.

There are many people clearly strongly connected to only one economy, others have substantial economic interests in two or more economic territories. Factors such as location of dwellings, employment, asset holdings, citizenship, migration status, income tax status, income received, expenditure, business interests, and location of dependent family members may point to different economies. To identify the economy of residence when there are connections to two or more economies, the following criteria are used to identify the center of predominant economic interest.

- A household is resident in the economic territory in which household members maintain or intend to maintain a dwelling or succession of dwellings treated and used by members of the household as their principal dwelling. Being present for one year or more in a territory or intending to do so is sufficient to qualify as having a principal dwelling there. If there is uncertainty about which dwelling is the principal dwelling, it is identified from the length of time spent there, rather than other factors such as presence of other family members, cost, size, or length of tenure.
- Individuals who belong to the same household must be residents of the same territory. If a member of an existing household ceases to reside in the territory where his or her household is resident, the individual ceases to be a member of that household. As a result of this definition, the use of households as the institutional unit is compatible with residence being determined on an individual basis.
- Other factors are used to determine residence of particular categories. These categories are students, medical patients, ship’s crew, as well as national diplomats, military personnel, staff of scientific stations, and other civil servants employed abroad in government enclaves. In these cases, some other connections are considered to be more important in determining residence. People who go abroad for full-time study generally continue to be resident in the

territory in which they were resident prior to studying abroad. This treatment is adopted even though their course of study may exceed a year. People who go abroad for the purpose of medical treatment maintain their predominant center of interest in the territory in which they were resident before they received the treatment, even in the rare cases in which complex treatments take a year or more. Crew of ships, aircraft, oil rigs, space stations, or other similar equipment that operate outside a territory or across several territories are treated as being resident in their home base territory. Staffs of international organizations, including those with diplomatic status and military personnel, are resident in the territory of their principal dwelling.

In order to decide the residence, it is necessary to have supplementary data on groups of non-residents that have significant links with the economy, for example, by remitting funds to family members remaining there or by intending to return there with savings or pension entitlements. Similarly, it may be desirable to have supplementary data on those who are classified as residents of the economy, but maintain significant links to other economies. Appendix 5m of the BPM 6<sup>th</sup> edition presents some supplementary aspects for flows associated with some of these mobile individuals.

No special treatment is adopted for refugees. Their residence will change from their home territory to the territory of refuge, if they have stayed or intend to stay in their place of refuge for one year or more, even if that residence is involuntary or transient, and its future status is unclear.

Specific criteria for determining residence are included in the 2008 SNA (see chapter 4: *Institutional units and sectors*) and Balance of Payment and International Investment Position Manual, 6<sup>th</sup> edition, IMF, 2009, chapter 4: *Economic Territory, Units, Institutional Sectors, and Residence*.

### 5.2.3. Institutional units

The concept of an institutional unit is the same in the 2008 SNA and BPM6. Because of the focus on the national economy, there are some special treatments of units in cross-border situations. In some cases, legal entities are combined into a single institutional unit if they are resident in the same economy, but are not combined if they are resident in different economies. Similarly, a single legal entity may be split when it has substantial operations in two or more economies. As a result of these treatments, the residence of the resulting units concerned becomes more clear-cut and the concept of the economic territory is strengthened. A legal entity that is resident in one jurisdiction is never combined with a legal entity resident in another. As a result, special purpose entities (SPEs) and other similar corporate structures owned by non-residents are considered to be resident of their territory of incorporation, even though most or all of their owners and most or all of their assets are in another economy<sup>42</sup>.

Another institutional unit for interest is the *notional resident unit*. When land located in a territory is owned by a non-resident entity, a notional unit that can be created and treated as resident, being considered the owner of the land.

The notional resident unit treatment is also applied to associated buildings, structures and other improvements on that land, leases of land for long periods, and ownership of natural resources

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<sup>42</sup>More information about institutional units is presented in the 2008 SNA, chapter 4: “*Institutional units and sectors*”.

other than land. As a result of this treatment, the non-resident is owner of the notional resident unit, rather than owning the land directly, so there is an equity liability to the non-resident, but the land and other natural resources are always assets of the economy in which they are located.

#### **5.2.4. Ownership**

The current account, which records transactions in goods and services, factor income flows and transfers, is in principle compiled when ownership change takes place or service is rendered. This payable/receivable guideline is in conformity with the other components of the national accounts which are, in general, on an accrual rather than a cash payment basis.

There are no longer any exceptions to the recording basis of the change of economic ownership. However, there is a different presentation in the case of merchanting. The merchanting means that the owner buys and resells goods in the same condition without the goods passing through the territory of the owner. The merchanting transactions are treated as trade in goods. The acquisition of goods by the merchant in one country is shown under goods as a negative export, while the sales are recorded as a positive export. The difference between sales and purchases of goods under merchanting are recorded as net exports of goods under merchanting in the country. If the goods are acquired in one period and not disposed of until a subsequent period, they will appear in changes in inventories of the merchant even though these inventories are held abroad.

More information concerning merchanting integration in national accounts is presented under part 5.5.2 of this chapter.

#### **5.2.5. Records**

The accounts are constructed on the principle of double-entry book-keeping. Every transaction involves a credit and debit entry. Credit entries carry a positive sign and cover the export of real resources such as goods and services, investment income receipts, and transfers received. In the capital account credit entries include the sale of assets to non-residents and borrowings from non-residents. All credit entries represent inflows of funds. Debit entries, which carry a negative sign, include imports of goods and services, investment income payments and transfer payments; acquisitions of foreign assets and payments of liabilities are debit entries and represent outflows of funds.

The main characteristic of vertical double-entry bookkeeping is that each transaction leads to at least two corresponding entries, traditionally referred to as a credit entry and a debit entry, in the books of the transactor. The international accounts for an economy are to be compiled on a vertical double-entry bookkeeping basis from the perspective of the residents of that economy. Because each transaction is either an exchange or a transfer, it requires two entries. This principle ensures that the total of all credit entries and that of all debit entries for all transactions are equal, thus permitting a check on consistency of accounts for a single unit.

#### **5.2.6. Time of recording of flows**

The time of recording could be determined on four bases: the accrual basis, the due-for payment basis, the commitment basis, and the cash basis. The accrual basis is used in the international accounts as well as in national accounts. Based on it, the flows are recorded at the time when economic value is created, transformed, exchanged, transferred, or extinguished. This means that



flows that imply a change of economic ownership is recorded when ownership passes and services are recorded when provided. In other words, the effects of economic events are recorded in the period in which they occur, irrespective of whether cash was received or paid or was due to be received or paid. When an economic event is accompanied by a settlement at a later date, such as an import of goods with trade credit, the time lag is bridged by recording each event separately, the corresponding entry at the time of import being trade credit payable.

### 5.2.7. Valuation

The transactions in BoPs are valued at market prices. Market prices refer to current exchange value, that is, the values at which goods and other assets, services, and labours are exchanged or else could be exchanged for cash. They are also, the basis for valuation in the international accounts.

*Market prices for transactions are defined as amounts of money that willing buyers pay to acquire something from willing sellers;* the exchanges are made between independent parties and on the basis of commercial considerations only—sometimes called “at arm’s length.” Thus, according to this strict definition, a market price refers only to the price for one specific exchange under the stated conditions.

In the international accounts, the valuation of exports and imports of goods is a special case where a uniform valuation point is used, namely the value at the customs frontier of the exporting economy, means FOB-type valuation (free on board). This treatment brings about consistent valuation between exporter and importer and provides for a consistent basis for measurement in circumstances where the parties may have a wide range of different contractual arrangements, from “ex-works” at one extreme (where the importer is responsible for arranging all transport and insurance) to “delivered duty paid” at the other (where the exporter is responsible for arranging all transport, insurance and any import duties). In international transactions, there may be motivations for under- or over-invoicing in order to evade taxes or exchange controls, so BPM6 provides guidance on how to develop market-equivalent prices when these cases are identified, and how to make the necessary adjustments needed to other items affected.

The 2008 SNA presents in chapter 14: “*The supply and use tables and goods and service account*” and chapter 28: “*Input-output and other matrix-based analysis*” the main issues of recording imports and exports.

## 5.3. Data and classifications

The main source of information for exports and imports of goods is the customs statistics pertaining to the export and import of goods, with a very detailed breakdown by products. However, these statistics are based on administrative registers, which usually records all merchandise that crosses the border of a country, regardless of the type of transaction. Therefore some adjustments may be necessary, e.g. for merchandise that crosses the border without being imports (goods in transit, goods for embassies, military bases or other enclaves within a country’s borders, etc.), or for merchandise that does not cross the border but are imports (e.g. goods purchased by a country's embassies, military bases or other enclaves in other countries).

International standards for merchandise trade statistics can be found in the manual *International Merchandise Trade Statistics: Concepts and Definitions* (IMTS) (United Nations, 1998). IMTS



uses a CIF-type (cost, insurance and freight) valuation for imports. It should be noted that *BPM6* uses a uniform FOB valuation for both exports and imports in the BOP.

For exports and imports of goods there are a number of classifications relevant for national accounts. The *Standard International Trade Classification* (SITC) has been in use since 1961<sup>43</sup>. It covers all goods that enter international trade. The SITC was last revised in 2006 with the release of SITC Rev. 4.

The *Harmonized Commodity Description and Coding System* (HS) or *Harmonized System*, as it is commonly known, was introduced in 1988 by the World Customs Organization, as a replacement for SITC. The HS is the system recommended by the United Nations Statistical Commission for the compilation and dissemination of merchandise trade statistics and is now widely used by most countries. The classification is revised frequently to take account of changing conditions of international trade. In the HS, goods are classified primarily according to the component material or the type of product, degree of processing, function, and economic activity. Goods are classified under 21 main sections, which are further subdivided into 97 chapters, 1,241 headings, and 5,113 subheadings. Descriptions are common across all countries down to the six-digit level; however, for statistical or tariff purposes, countries are allowed to include additional digits on a country specific basis.

The classification by *Broad Economic Categories* (BEC) classifies goods by economic classes distinguishing food, industrial supplies, capital equipment, consumer durables, and consumer non-durables. It was designed to convert goods classified by the SITC according to the three broad end-use classes of consumption goods, intermediate goods, and capital goods commonly used in compiling national accounts statistics.

Data for exports and imports of services come from the BOP. In *BPM6*, the following 12 main service categories are identified and broken down into a list of standard and supplementary components:

- Manufacturing services on physical inputs owned by others
- Maintenance and repair services not included elsewhere
- Transport
- Travel
- Construction
- Insurance and pension services
- Financial services
- Charges for the use of intellectual property not included elsewhere
- Telecommunications, computer and information services
- Other business services
- Personal, cultural and recreational services
- Government goods and services not included elsewhere

It should be noted that Travel is somewhat different from the other service categories. Travel does not refer to a particular service and covers expenses for goods and services (including accommodation, food, souvenirs, etc.) acquired by a person in the country visited.

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<sup>43</sup>The information on classification for goods chiefly comes from *Measuring Trade in Services*, A training module produced by WTO / OMC, November 2010

The *Extended Balance of Payments Services Classification* (EBOPS, current version 2010) consists of a further breakdown of these BOP service components into more detailed sub-items. Like the BPM6 services classification, EBOPS 2010 is primarily a product-based classification.

## 5.4. International accounts

International accounts cover accounts for current transactions (current accounts), accumulation accounts and balance sheets. The three current accounts are the goods and services account, the primary income account and the secondary income account. The primary income account corresponds to the allocation of primary income accounts in the SNA and the secondary income account corresponds to the secondary distribution of income account in the SNA.

The current account records trade in goods and services, along with primary and secondary income flows between residents and non-residents. The capital account includes acquisitions and disposals of non-produced, non-financial assets, while the financial account records net acquisitions of financial assets and net incurrence of liabilities. The transactions in the current account and capital account are recorded in gross terms, while financial assets and liabilities in the financial account are shown separately on a net basis.

### 5.4.1. Current account

The current account measures the (i) flows of goods, services; (ii) primary income and (iii) secondary income between residents and non-residents.

#### ***Goods and services account***

*The goods and services account* records external transactions in goods and services. The goal of this account is the point at which goods and services are exchanged between a resident and a non-resident. *Goods are physical, produced items over which ownership rights can be established and whose economic ownership can be passed from one institutional unit to another by engaging in transactions* (see BPM6, chapter 10). They may be used to satisfy the needs or wants of households or the community or used to produce other goods or services.

Goods are shown in the account, separately from services. *Services are the result of a production activity that changes the conditions of the consuming units, or facilitates the exchange of products or financial assets* (see BPM6, chapter 10). Services are not generally separate items over which ownership rights can be established and cannot generally be separated from their production.

International merchandise trade statistics (IMTS) are the main data source for general merchandise in the goods and services account. The international standards for merchandise trade data are set out in United Nations *International merchandise trade statistics: Concepts and Definitions (2010)* closely linked to the BPM6. In practice, the data used as sources for general merchandise include customs data, international transactions reporting systems, other administrative data (including value-added tax systems), surveys of traders, or combinations. Adjustments to source data may be needed to accounts for coverage, timing, valuation, and classification that do not meet balance of payments guidelines. One adjustment is that the standards for IMTS use a CIF-type (cost, insurance and freight) valuation for imports, while the balance of payments use a uniform FOB valuation for both exports and imports. Another adjustment is made for coverage and refers to the change of ownership principle in the BoPs

statistical system. Following this principle, goods sent abroad for processing without a change of ownership are not covered in the goods account. On the other hand, for goods sold under merchandising, although the goods involved have never been entered into the economy where the owner resides in, they are recorded in the goods account of the owner's economy given that there has been a change of ownership of the goods. While the goods sent abroad for processing without a change of ownership are not covered in the goods account of an economy, the manufacturing services performed on these goods by a processor in another processing economy are covered in its services account. Other services cover a wide range of economic activities, including transport, travel, insurance and pension, financial services, etc.

### **Primary income account**

*The primary income account* shows the amounts receivable and payable abroad in return for providing / obtaining use of labour, financial resources or natural resources to / from non-residents. The concepts and definitions of primary income under the current account of the BoPs are the same as those used in national accounts for the external primary income flows under Gross National Income (GNI) in the system of national accounts. In the SNA, primary distribution of income is recorded in two accounts, namely, the generation of income account (which records primary income generated in the production process) and the allocation of primary income account (which records primary income allocated to institutional units for the provision of labour, financial assets, and natural resources). In the international accounts, all primary income flows relate to the allocation of primary income account.

Primary income represents the return that accrues to institutional units for their contribution to the production process or for the provision of financial assets and renting natural resources to other institutional units. There are distinguished two types of primary income:

- Income associated with the production process: (i) compensation of employees, which represents the income for the contribution of labour inputs to the production process; (ii) taxes and subsidies on products and production, which are related to production, too;
- Income associated with the ownership of financial and other non-produced assets as: (i) *property income which is the return for providing financial assets and renting natural resources*; (ii) *investment income, the return for providing financial assets, which consists of dividends and withdrawals from income of quasi corporations, reinvested earnings, and interest.*

The international accounts distinguish the following types of primary income:

- compensation of employees;
- dividends;
- reinvested earnings;
- interest;
- investment income attributable to policyholders in insurance, standardized guarantees, and pension funds;
- rent;
- taxes and subsidies on products and production.

### **Secondary income account**

The secondary income account records current transfers between residents and non-residents. Current transfers are transactions in which real or financial resources that are likely to be

consumed immediately or shortly are provided without the receipt of equivalent economic values in return. Examples include workers' remittances, donations, official assistance and pensions. Current transfers are unilateral in nature and are offsetting entries in the BoPs account for one-sided transactions. Credit entries in this account reflect offsetting entries to the receipt of aforesaid real and financial resources from other economies. Conversely, debit entries recorded are offsets to the provision of such real and financial resources to other economies. Secondary income, together with primary income, affects gross national disposable income which has a direct and immediate effect on an economy's pattern of consumption in a specified period.

### ***Capital and financial account***

The capital account measures external transactions in capital transfers, and the acquisition and disposal of non-produced, non-financial assets (such as trademarks and brand names).

*The capital account* in the international accounts shows: (i) capital transfers receivable and payable between residents and non-residents and (ii) the acquisition and disposal of non-produced, non-financial assets between residents and non-residents. Examples of capital transfers include forgiveness of debts by creditors, and cash transfers involving the acquisition or disposal of fixed assets.

The balance on the capital account shows the total credits less debits for capital transfers and non-produced, non-financial assets. In addition, the sum of the current and capital account balances can also be shown as a balancing item. The balancing item is labelled as net lending (+)/net borrowing (-) from the capital and current accounts. That sum is also conceptually equal to net lending (+)/net borrowing (-) from the financial account.

The current and capital accounts show nonfinancial transactions, with the balance requiring net lending or net borrowing, while the financial account shows how net lending or borrowing is allocated or financed.

The *financial account* records transactions in financial assets and liabilities between residents and non-residents. It shows how an economy's external transactions are financed. Transactions in the financial account are classified by function (i.e. the purpose of the investment) into direct investment, portfolio investment, financial derivatives, and other investment and reserve assets.

The capital account net balance is in principle equal but opposite in sign to the surplus or deficit on current account and in the minds of many users is associated with the financing of the exchange of goods and services. However, the account also reflects financial activity only remotely connected with production and the current account. There may be considerable capital movement for investment and speculative purposes. These may show up as offsetting flows including foreign exchange reserve movements.

## **5.4.2. Relationship of the rest of the world account (SNA) to the international accounts (BoP)**

International accounts are closely linked to the SNA, reinforced by the fact that data on the balance of payments are compiled first and subsequently incorporated in relevant external account components of the SNA rest of the world account. There is complete concordance between the SNA and BPM6 with respect to the delineation of resident units, valuation, time of recording, conversion procedures, and coverage of goods, services, income, capital transfers, and foreign financial assets and liabilities.

A major difference exists in the presentation of the transactions: the international accounts use functional categories as the primary level of classification for investment income and the financial account, whereas the SNA uses instruments and sectors. The functional categories are not applicable to domestic relationships. However, the instrument and institutional sector detail in the international accounts allows the data to be converted or compared with SNA data.

The resources in the 2008 SNA represent the credits of the balance of payments, and uses, the debits. *The SNA rest of the world accounts are presented from the point of view of the non-resident units, whereas the balance of payments presents the same transactions from the point of view of resident units.* As an example, imports of an economy are shown as resources in the SNA, that is, an outflow from the rest of the world and an inflow or use for the resident units. Thus the BPM6 entries are the mirror image of the SNA entries.

In the BPM6, there is a balancing item for each account showing the excess of credits over debits (or a net balance of the financial account) and the cumulative value of balancing items is presented. The national accounts, only the cumulative balance is shown because the 2008 SNA records the balancing item on the use side of the previous account as the first entry on the resource side of the subsequent account.

The balance of payments emphasizes the distinction between goods and services; goods are presented at an aggregated level while services are covered in detail. The classification of services in the 2008 SNA is strictly consistent with the Central Product Classification (CPC); in BPM6, it differs from the CPC for a few products, i.e., travel, construction, and government goods and services n.i.e., which are transactor-based (relating to the provider/acquirer rather than product itself). The external balance on goods and services for the rest of the world, which is part of the goods and services account, is mirrored by the balance on goods and services in the international accounts.

The primary income account entries in the balance of payments largely represent the compensation of employees and property income, as in the allocation of primary income account of SNA. Other elements of the primary income account are the payments of taxes on production payable by a resident to another government and subsidy receivable by a resident from another government. Property income in the 2008 SNA is equal to investment income in the balance of payments plus rent. Rent rarely arises in cross-border situations because all land is deemed to be owned by residents, if necessary by creating a notional resident unit. Example where rent may be recorded in the international accounts may be short-term fishing rights in territorial waters provided to foreign fishing fleets.

Investment income in relation to cross-border transactions reflects the return to the financial capital invested abroad and vice versa. Interest flows are measured on exactly the same basis in both the BPM6 and the 2008 SNA. With effect from the BPM6, interest is adjusted for the implicit service charge (known as Financial Intermediation Service Indirect Measurement-FISIM) levied by deposit-taking corporations and treated by them as part of interest. FISIM is treated as an import/export of financial services.

The reconciliation between investment income in the international accounts and in the 2008 SNA is made using subcomponents below the level of the functional categories of investment income. An example is the value for interest payments to and from the rest of the world.

The balance on primary income, the balancing item of the primary income account in the balance of payments, shows how Gross Domestic Product (GDP) is converted to the Gross National Income (GNI) by payments of primary income to and from abroad. The cumulative balancing item for this sequence of the international accounts is the balance on goods, services, and primary income.

The entries in the secondary income account of the balance of payments are mainly current transfers and correspond exactly to those in the secondary distribution of income account in the 2008 SNA. For the balance of payments, current international cooperation and personal transfers (remittances) sent by households in one economy to households in another economy are particularly important. Insurance flows related to reinsurance can be of significant importance internationally. The balance of payments records these flows in the same way as the 2008 SNA, both as regards the separation of a financial service charge and the treatment of direct insurance and reinsurance flows separately and not on a consolidated basis. The balance of payments also includes in the secondary income account an item known as the adjustment for the change in pension entitlements. This appears in the use of income account in the 2008 SNA, but this account does not exist in the BoPs.

The balancing item recorded at this point for the international accounts is the balance on secondary income. The cumulative balance is the current account balance. The 2008 SNA records disposable income as the cumulative balancing item on the secondary distribution account. There is then another SNA account, the use of income account, for which there is no corresponding account in the international accounts. The cumulative balancing item on the use of income account is saving for the domestic economy and the current external balance for the rest of the world. This item corresponds exactly to the current account balance from the international accounts.

The elements of the capital account subject to international transactions contain fewer items than those covered in the SNA. There are no transactions recording capital formation of produced assets because the international accounts are not concerned with the final use of products imported/exported. There are entries to cover acquisitions and disposals of non-produced nonfinancial assets and capital transfers, although these are infrequent and for many countries may not appear. The account also records capital transfers receivable by and payable by the domestic economy, leading to a capital account balance.

#### **Box 4.1: Burkina Faso – Use of balance of payments statistics in national accounts**

##### ***Taking into account unregistered international trade:***

In general, the Central Bank makes an estimate of uncontrolled trade on the basis of banknotes circulating in the UEMOA area (West African Monetary and Economic Union) but also from studies on cross-border trade. A committee included the eight member state of UEMOA, proceeds to the confrontation of statistics on trade between member states, makes adjustments and validates the data. The balance of payments (BoP) outcome of this exercise is used for the compilation of national accounts.

In most cases, the values of exports and imports of BoP are higher than those reported by the NSO department in charge of external trade. The surplus per transaction (export or import) represents the uncontrolled trade. Exports are recorded on fob for both sources. The breakdown of the surplus is therefore done in a reasoned way by identifying products that could be in uncontrolled trade. Imports are recorded CIF by the external trade and FOB by the balance of payments. First we adjust data of BoP by distributing the position “Insurance and Freight” by product. We therefore obtain CIF data - CIF for both sources. The unregistered trade is distributed



with the same method as exports. It should be noted that before the treatment of unregistered trade, a link table between external trade (HS) classification and national accounts products classification is used. This provides a basis for arbitration of sharing out unregistered trade.

***Overall use balance of payments for national accounts:***

The balance of payments is used from loading it into the database as source data, to the synthesis tables of national accounts. It helps at many level of national accounts compilation stages such as:

Make arbitration between data of external trade of goods and those of the Balance of Payments, including estimated uncontrolled trade.

Compilation of supply and use balance (SUB) by product and supply and use table (SUT): External trade and balance of payments are sources for exports and imports by product; this is useful for SUB. However, during the compilation of SUB, the data from the BoP can be questioned. This is the case for gold in Burkina where the central bank values the amount of gold exported by international prices. Experience shows that mining companies do not sell their products at the same price; this became a problem in the SUB of gold. The value of gold exports is obtained by balance based on an estimate of intermediate consumption and final consumption product "gold".

Compilation of Integrated Economic Accounts table (IEAT): BOP allows getting elements on transactions between the country and the rest of the world which are taken into account in the synthesis of IEAT (wages, property income, insurance, transfers) on transactions.

The comparison of balancing items from national accounts, BOP and public finances: This help to compare the gaps and seek an explanation for the differences while taking into account equations between macroeconomic aggregates from these three sources. This helps also to review the different treatment of data by source and see if the gaps are not too big.

### 5.4.3. Rest of the world account

The SNA includes the sectors accounts for all resident institutional units. Their relations with the non-resident units are presented in the rest of the world account.

***Definition***

The rest of the world consists of all non-resident institutional units that enter into transactions with resident units, or have other economic links with resident units.

*Source:* The 2008 SNA, European Commission, IMF, OECD, UN, World Bank, 2009, Chapter 4: Institutional units and sectors, point 4.172.

The rest of the world is not a sector for which complete sets of accounts are kept. The resident institutional units are grouped in more homogeneous categories concerning their economic behaviour, objectives and functions. This is not the case for the rest of the world sector: for this sector, there are recorded transactions and other flows of non-financial and financial corporations, non-profit institutions, households and general government with non-resident institutional units and other economic relationships between residents and non-residents, e.g. claims by residents on non-residents. The rest of the world includes certain institutional units that may be physically located within the geographic boundary of a country; for example, foreign enclaves such as embassies, consulates or military bases, and also international organizations

The accounts for the rest of the world include only transactions carried out between resident institutional units and non-resident units, subject to the following exceptions:

- the services of transport (up to the border of the exporting country) provided by resident units in respect of imported goods are shown in the rest of the world accounts with FOB imports, even though they are produced by resident units;
- transactions in foreign assets between residents belonging to different sectors in the domestic economy are shown in the detailed financial accounts for the rest of the world. These transactions do not affect the country's financial position vis-à-vis the rest of the world; they affect the financial relationships of individual sectors with the rest of the world;
- transactions in the country's liabilities between non-residents belonging to different geographical zones are shown in the geographical breakdown of the rest of the world accounts. Although these transactions do not affect the country's overall liability to the rest of the world, they affect its liabilities to different parts of the world.

The estimation of rest of the world accounts is based on the balance of payments statistics. The following table presents the transition from balance of payments items to national accounts concepts. The codes used represent the transactions in national accounts (for more details, see annex 2 of 2008 SNA: “*The sequence of accounts*”). In order to illustrate the estimation of the rest of the world account, values have been attributed to the credit and debit items of the balance of payments.

Figure 4.1: Simplified bridge table from BoP items to SNA transactions

Balance of Payments	Credits	Uses in SNA	Debits	Resources in SNA
<b>1. CURRENT ACCOUNT</b>				
1.A. Goods and services	686	P6	834	P7
1.A.a Goods	585	P61	736	P71
1.A.b Services	101	P62	98	P72
<b>1.B PRIMARY INCOME</b>				
<b>1.B.1 Compensation of employees</b>	40	D1	10	D1
<b>1.B.2 Investment income</b>	18		83	
<b>1.B.2.1 Direct investment</b>	10		44	
1.B.2.1.1 Income on equity and investment fund shares	5	D42	22	D42
1.B.2.1.1.1 Dividends and withdrawals from income of quasi-corporations	3	D42	20	D42
1.B.2.1.1.2 Reinvested earnings	2	D43	2	D43
<b>1.B.2.2 Portfolio investment</b>	4		21	
1.B.2.2.1 Investment income on equity and investment fund shares				
1.B.2.2.1.1 Dividends on equity excluding investment fund shares	1	D42	10	D42
1.B.2.2.1.2 Investment income attributable to investment fund shareholders	2	D44	1	D44
1.B.2.2.2 Interest	1	D41	10	D41
<b>1.B.2.3 Other investment</b>	2		7	
1.B.2.3.1 Withdrawals from income of quasi-corporations	1	D44	4	D44
1.B.2.3.2 Interest	1	D41	2	D41



Balance of Payments	Credits	Uses in SNA	Debits	Resources in SNA
1.B.2.3.3 Investment income attributable to policyholders in insurance, pension schemes, and standardized guarantee schemes	-	D44	1	D44
<i>1.B.2.4 Reserve assets</i>	2		11	
1.B.2.4.1 Income on equity and investment fund shares	1	D42	5	D42
1.B.2.4.2 Interest	1	D41	6	D41
<b>1.B.3 Other primary income</b>	10		20	
1.B.3.1 Taxes on production and on imports		D2		D2
1.B.3.2 Subsidies		D3		D3
1.B.3.3 Rent	10	D45	20	D45
Balance on goods, services, and primary income (+ surplus; – deficit)				
<b>1.C SECONDARY INCOME</b>				
Balance on secondary income (+ surplus; – deficit)				
<b>1.C.1 General government</b>	87		10	
1.C.1.1 Current taxes on income, wealth, etc.	1	D51	-	D51
1.C.1.2 Social contributions	2	D61	1	D61
1.C.1.3 Social benefits n.a.	-	D62+D63	-	D62+D63
1.C.1.4 Current international cooperation	9	D74	1	D74
1.C.1.5 Miscellaneous current transfers of general government	75	D75	8	D75
<b>1.C.2 Financial corporations, nonfinancial corporations, households, and NPISHs</b>	6		22	
1.C.2.1 Personal transfers (Current transfers between resident and non-resident households)	3	D75	11	D75
1.C.2.0.1 Current taxes on income, wealth, etc. n.a.	-	D51	2	D51
1.C.2.0.2 Social contributions		D61		D61
1.C.2.0.3 Social benefits		D62+D63		D62+D63
1.C.2.0.4 Net nonlife insurance premiums	2	D71	4	D71
1.C.2.0.5 Nonlife insurance claims	1	D72	5	D72
1.C.2.0.6 Current international cooperation	-	D74	-	D74
1.C.2.0.7 Miscellaneous current transfers		D75		D75
<b>1.C.3 Adjustment for change in pension entitlements</b>		<b>D8</b>		<b>D8</b>
<b>2CAPITAL ACCOUNT</b>				
Capital account balance (+ surplus; – deficit)				
<b>2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets</b>				
<b>2.2 Capital transfers</b>		D9		D9
2.2.1 General government				
2.2.1.1 Debt forgiveness				
2.2.1.2 Other capital transfers Of which: 2.2.1.2.1 Capital taxes		D99 D91		D99 D91
2.2.2 Financial corporations, nonfinancial corporations, households, and NPISHs			20	
2.2.2.1 Debt forgiveness				
2.2.2.2 Other capital transfers Of which: 2.2.2.2.1 Capital taxes		D99 D91	20 10	D99 D91

Balance of Payments	Credits	Uses in SNA	Debits	Resources in SNA
Net lending (+) / net borrowing (–) (balance from current and capital accounts) (B9)				

Based on data from the balance of payments, the rest of the world accounts are the presented in Figure 4.2.

Figure 4.2: Rest of the world accounts (S2)

SNA code		USES	RESSOURCES
<b>I. EXTERNAL ACCOUNT OF GOODS AND SERVICES</b>			
<b>P.6</b>	<b>Exports of goods and services</b>	<b>686</b>	
P.61	Exports of goods	585	
P.62	Exports of services	101	
<b>P.7</b>	<b>Imports of goods and services</b>		<b>834</b>
P.71	Imports of goods		736
P.72	Imports of services		98
<b>B.11</b>	<b>External balance of goods and services</b>	<b>148</b>	
<b>II. EXTERNAL ACCOUNT OF PRIMARY INCOME AND CURRENT TRANSFERS</b>			
<b>D.1</b>	<b>Compensation of employees</b>	<b>40</b>	<b>10</b>
D.11	Wages and salaries	40	10
<b>D.4</b>	<b>Property income</b>	<b>28</b>	<b>103</b>
D.41	Interest	3	18
D.42	Distributed income of corporation	12	58
D.421	Dividends	12	58
D.43	Reinvested earnings on direct foreign investment	2	2
D.44	Other investment income	1	5
D.45	Rents	10	20
<b>D.5</b>	<b>Current taxes on income and wealth</b>	<b>1</b>	<b>2</b>
D.51	Taxes on income	1	2
D.59	Other current taxes		
D.61	Net social contributions	2	1
D.62	Social benefits other than social transfers in kind		
<b>D.7</b>	<b>Other current transfers</b>	<b>90</b>	<b>29</b>
D.71	Net non-life insurance premiums	2	4
D.72	Non-life insurance claims	1	5
D.73	Current transfers within general government		
D.74	Current international cooperation	9	1
D.75	Miscellaneous current transfers	78	19
<b>B.12</b>	<b>Current external balance</b>	<b>132</b>	<b>0</b>
<b>III.1.1 CHANGE IN NET WORTH DUE TO SAVING AND CAPITAL TRANSFERS ACCOUNT</b>			
B.12	Current external balance	132	
D.9	Capital transfers, receivable		20

SNA code		USES	RESSOURCES
D91	Capital taxes		10
D92	Investment grants		
D.99	Other capital transfers		10
D.9	Capital transfers, payable		
D91	Capital taxes		
D92	Investment grants		
D.99	Other capital transfers		
<b>B.10.1</b>	<b>Change in net worth due to saving and capital transfers account</b>	<b>152</b>	
<b>III. 1.2 ACQUISITION OF NON FINANCIAL ASSETS ACCOUNT</b>			
B10.1	Change in net worth due to saving and capital transfers account		152
<b>B.9</b>	<b>Net lending (+) / net borrowing (-)</b>	<b>152</b>	

Figure 4.3: Integrated economic accounts

Figure 4.5: Integrated economic accounts

SNA code	Transactions	Uses			Resources		
		Total economy	Rest of the world account	Total	Total economy	Rest of the world account	Total
		S1	S2		S1	S2	
<b>EXTERNAL ACCOUNT OF GOODS AND SERVICES</b>							
P6	Exports of goods and services		686.0	686.0			686.0
P61	Exports of goods		585.0	585.0			585.0
P62	Exports of services		101.0	101.0			101.0
P7	Imports of goods and services			834.0		834.0	834.0
P71	Imports of goods			736.0		736.0	736.0
P72	Imports of services			98.0		98.0	98.0
B11	External balance of goods and services		148.0	148.0			
<b>PRODUCTION ACCOUNT</b>							
P1	Output			3,817.0	3,817.0		3,817.0
P11	- Market output			2,952.0	2,952.0		2,952.0
P12	- Output for own final use			475.0	475.0		475.0
P13	- Other non-market output			390.0	390.0		390.0
P 2	Intermediate consumption	2,064.0		2,064.0			2,064.0
D21-D31	Taxes less subsidies on products	221.0		221.0	221.0		221.0
B1	Gross value added	1,754.0		1,754.0			
B1*	Gross domestic product	1,976.0		1,976.0			

GENERATION OF INCOME ACCOUNT							
B1	Gross value added				1,754.0		1,754.0
D1	Compensation of employees	741.0		741.0			
D11	Gross wages and salaries	607.0		607.0			
D12	Employers' social contributions	134.0		134.0			
D121	Employers' actual social contributions	121.0		121.0			
D122	Employers' imputed social contributions	13.0		13.0			
D2	Taxes on production and imports	246.0		246.0			
D21	Taxes on products	234.0		234.0			
D211	Value added taxes	142.0		142.0			
D212	Taxes and duties on imports excluding VAT	133.0		133.0			
D212 1	Import duties	13.0		13.0			
D212 2	Taxes on imports excluding VAT and duties	1.0		1.0			
D214	Taxes on products except VAT and import taxes	79.0		79.0			
D29	Other taxes on production	12.0		12.0			
	- building taxes	6.0		6.0			
	- sample fiscal taxes						
	- means of transport taxes	1.0		1.0			
	- other taxes	5.0		5.0			
D3	Subsidies	-28.0		-28.0			
D31	Subsidies on products	-12.0		-12.0			
D39	Other subsidies on production	-16.0		-16.0			
B2	Gross operating surplus	1016.0		1016.0			
ALLOCATION OF PRIMARY INCOME ACCOUNT							
B2	Gross operating surplus				1,016.0		1,016.0
D1	Compensation of employees		40.0	40.0	771.0	10.0	771.0
D11	Gross wages and salaries		40.0	40.0	637.0	10.0	637.0
D12	employers' social contributions				134.0		134.0
D121	Employers' actual social contributions				121.0		121.0
D122	Employers' imputed social contributions				13.0		13.0
D2	Taxes on production and imports				246.0		246.0
D21	Taxes on products				234.0		234.0
D211	Value added taxes				142.0		142.0
D212	Taxes and duties on imports excluding VAT				133.0		133.0
D212 1	Import duties				13.0		13.0

D212 2	Taxes on imports excluding VAT and duties				1.0		1.0
D214	Taxes on products except VAT and import taxes				79.0		79.0
D29	Other taxes on production				12.0		12.0
	- building taxes				6.0		6.0
	- sample fiscal taxes						
	- means of transport taxes				1.0		1.0
	- other taxes				5.0		5.0
D3	Subsidies				-28.0		-28.0
D31	Subsidies on products				-12.0		-12.0
D39	Other subsidies on production				-16.0		-16.0
D4	Property income	281.0	28.0	309.0	232.0	103.0	335.0
D41	Interest	117.0	3.0	120.0	101.0	18.0	119.0
D42	Distributed income of corporations	62.0	12.0	74.0	29.0	58.0	87.0
D421	Dividends	61.0	12.0	73.0	28.0	58.0	86.0
D422	Withdrawals from income of quasi-corporations	1.0		1.0	1.0		1.0
D43	Reinvested earnings on direct foreign investment	5.0	2.0	7.0	7.0	2.0	9.0
D44	Other investment income	10.0	1.0	11.0	8.0	5.0	13.0
D45	Rent	87.0	10.0	97.0	87.0	20.0	107.0
B5	Balance of primary incomes/Gross national income	1,956.0		1,956.0			
<b>SECONDARY DISTRIBUTION OF INCOME ACCOUNT</b>							
B5	Balance of primary incomes/Gross national income				1,956.0		1,956.0
D5	Current taxes on income, wealth, etc.	111.0	1.0	112.0	111.0		111.0
D51	Taxes on income	108.0	1.0	109.0	108.0	2.0	110.0
D59	Other current taxes	3.0		3.0	3.0		3.0
D61	Social contributions	199.0	2.0	201.0	199.0	1.0	200.0
D611	Actual social contributions	185.0	2.0	187.0	185.0	1.0	186.0
D611 1	Employers, actual social contributions	121.0		121.0	121.0		121.0
D611 2	Employees, social contributions	61.0	2.0	63.0	61.0	1.0	62.0
D611 3	Social contributions by self and non-employed persons	3.0		3.0	3.0		3.0
D612	Imputed social contributions	13.0		13.0	13.0		13.0
D62	Social benefits other than social transfers in kind	171.0		171.0	171.0		171.0
D7	Other current transfers	179.0	90.0	269.0	277.0	29.0	306.0
D71	Net non-life insurance premiums	24.0	2.0	26.0	24.0	4.0	28.0
D72	Non-life insurance claims	9.0	1.0	10.0	9.0	5.0	14.0
D73	Current transfers within general government	74.0		74.0	74.0		74.0

D74	Current international cooperation	1.0	9.0	10.0	9.0	1.0	10.0
D75	Miscellaneous current transfers	71.0	78.0	149.0	160.0	19.0	179.0
B6	<b>Gross disposable income</b>	<b>2,054.0</b>		<b>2,054.0</b>			
<b>USE OF DISPOSABLE INCOME ACCOUNT</b>							
B6	Gross disposable income				2054.0		2054.0
P3	Final consumption expenditure	1692.0		1692.0			1692.0
P31	Individual consumption expenditure	1492.0		1492.0			1492.0
P32	Collective consumption expenditure	200.0		200.0			200.0
B8	Gross saving	<b>362.0</b>		<b>362.0</b>			
B12	Current external balance		<b>132.0</b>	<b>132.0</b>			
<b>CHANGE IN NET WORTH DUE TO SAVING AND CAPITAL TRANSFERS ACCOUNT</b>							
B8	Gross saving				362.0	132.0	494.0
D9	Capital transfers, receivable				37.0	20.0	57.0
D92	Investment grants, receivable				18.0		18.0
D99	Other capital transfers, receivable				19.0	20.0	39.0
D9	Capital transfers, payable				-28.0		-28.0
D92	Investment grants, payable				-19.0		-19.0
D99	Other capital transfers, payable				-9.0		-9.0
B10.1	<b>Changes in net worth due to saving and capital transfers</b>	<b>371.0</b>	<b>152.0</b>	<b>431,668.8</b>			
<b>ACQUISITION OF NON FINANCIAL ASSETS ACCOUNT</b>							
B10.1	Changes in net worth due to saving and capital transfers				371.0	152.0	523.0
P51	Gross fixed capital formation	523.0		523.0			523.0
P52	Changes in inventories	8.0		8.0			8.0
K2	Acquisitions less disposals of non-produced non-financial assets						
K21	Acquisitions less disposals of land and other tangible non-produced assets						
K22	Acquisition less disposals of intangible non-produced assets						
B9	<b>Net lending (+)/net borrowing (-)</b>	<b>-152.0</b>	<b>152.0</b>				

## 5.5. Special cases

### 5.5.1. Goods sent abroad for processing

The treatment of goods sent abroad for processing without *change of ownership*, is one of the changes introduced in the updated System of National Account (the 2008 SNA) with significant impact on national accounts and balance of payments compilation. The same changes are included in BPM6.

There are two main changes related with this issue: a new processing service is recognised – manufacturing services on physical inputs owned by others and any change of ownership or, goods sent abroad for processing is imputed, so the data are not included in the exports and imports figures.

The processing service represents the fee charged for the processing service. It is this service which is recorded in the national accounts - an export of manufacturing services for the country of the processor and an import of manufacturing services for the owner of the goods. The value of the service is not necessarily the same as the difference between the value of the goods sent for processing and the value of goods after processing because of holding gains or losses, the inclusion of overheads and measurement errors associated with the goods movements.

The goods sent abroad for processing and returned after processing are not included in the exports and imports figures, but as supplementary items in the external goods and services account. In this way, the data reconcile the IMTS entries with the net import services figure reflecting the processing costs.

In the previous system, the 1993 SNA, the goods sent abroad for processing were recorded as exports on being sent abroad, and then recorded as imports on return from abroad, at a higher value as a result of the processing. This was known as the gross recording method, and effectively imputes a change of ownership. The 2008 SNA and BPM6 do not impute a change of ownership, but rather show only one entry – an import of the processing service. This would be an export of the service for the country in which the processing takes place. This recording is more consistent with the institutional records and associated financial transactions.

The 2008 SNA suggests the net processing service (equivalent to *manufacturing services on physical goods owned by others*) can be presented as the difference between the value of goods sent abroad for processing and the value of goods returned after processing.

The treatment of goods sent abroad for processing affected the current, production and accumulation accounts in the BoP and SNA.

#### *Current account of the BoPs*

- Under the 1993 SNA, for a country involved in "processing", a value is imputed for raw or semi-processed goods entering the country. The value of the material is recorded as an import of goods. After processing, the processed goods are exported back to the supplying country and a value is again imputed and recorded as export of goods. The difference between the two values is equal to the processing fee paid. In practice, it is possible that the difference will not be equal to the processing fee. This will be the case if prices change over the processing period, notably if processing takes place over two accounting periods.
- Under the 2008 SNA, the imports and the exports of material and processed goods are no longer recorded. Processing fees are however recorded, but as a service. Overall, the current account balance is not affected. However, trade in goods diminishes while trade in services increases by the same amount.

#### *Production account of the SNA*

- Under the SNA 93, the value of goods sent for processing entering the country of the contractor are allocated to intermediate inputs of the receiving industry. The value of

gross output of that industry is equal to the value of the material and the value added to them by the contractor (processing fee).

- In 2008 SNA, on the output side, processing fees only is imputed for intermediate inputs. In theory, value added remains the same under both treatments.

#### *Accumulation account of the BoPs and SNA*

Having assumed a change of ownership in favour of the processor, it is necessary to record a change in inventories for that processor if processing is unfinished at the end of the accounting period.

- Under 1993 SNA, the changes in inventories is recorded in the capital account and the balance sheet. Since the capital account and the balance sheet of the country providing the material will also be adjusted for inventories, it is necessary to impute an entry in the financial account of both countries to show that there is no call on the foreign exchange of the processing country for the value of the goods processed.
- Under 2008 SNA, changes in inventories are no longer necessary since the ownership of the material will no longer be imputed to the contractor.

The practice of “goods sent for processing” gives rise to two specific situations that will be dealt with separately: the client case (the principal) and the processor case (the contractor). In the client case, the principal sends goods it owns to another unit (contractor) abroad to be processed. In the most general case, these are semi-processed goods of the principal's own manufacture. Once the goods are processed, they are returned to the principal, where they may be further processed or sold. The client pays a fee to the processor for the services provided. In the processor case, a contractor receives goods belonging to the principal and, in return for a processing fee, transforms the goods using its own labour and capital before sending them back to the principal for further processing and sale by the latter.

In the 1993 SNA, a value was imputed for raw materials or semi-processed goods entering a country for processing, as an import of goods. The processed goods are then returned to the supplying country and a value is again imputed and recorded as an export of goods. The difference between the two values is assumed to be equal to the processing fee paid.

Under the 2008 SNA, the imports and the exports of goods sent for processing are no longer recorded. Processing fees are recorded, as a service. In principle, the overall current account balance is not affected. However, trade in goods diminishes while trade in services increases by the same amount. In practice, the current account balance may be affected, if some value added properly attributable to the entity sending the goods for processing, which under the 1993 SNA treatment was reflected in their value after the processing, is not included in the processing fee.

The treatment of these transactions in the two systems of national accounts is presented in Figure 4.4.

Figure 4.4: Treatment of goods sent abroad

	SNA 93	2008 SNA
Recording method	Gross	Net
Change of ownership	Imputed	Not imputed
Goods for processing	Import/export of goods	-
Processing fees	-	Import/export of services



Business statistics	Inconsistency with ISIC and structural survey	Consistency
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### **Numerical example**

The impacts of the changes are described in the context of the 1993 SNA and the 2008 SNA. The example involves a principal unit in Country A sending its semi-processed goods for further processing to a processing (contractor) unit in Country B. The contractor does not pay for the material received from the principal unit. The value of the goods sent for processing is valued at 100 Monetary Units (MU) while the value of the goods after processing is estimated at 150 (MU); in this case, processing fees are equal to 50.

In the example, we assume that Country A produces Good A to a value of 100 MU, with input of goods and services for 70 MU. Country B produces processing for a value of 50 with an input of goods and services for 30. After receiving the processed good, country A sell it for 160 MU and has a total intermediate consumption of 120 MU (70+50).

Figure 4.5: Records in business statistics

Indicator	Country A- Principal	Country B-Processor
<b>Production</b>		
- Goods	160	
- Services		50
<b>Intermediate consumption</b>		
- Goods	50	20
- Services	20+50	10
<b>Value Added</b>	40	20

Figure 4.6: Records in foreign trade statistics

- Imports of goods	150	100
- Exports of goods	100	150

In the 1993 SNA conditions when the goods sent for processing enter Country B, a change of ownership is assumed and a transaction is imputed between the principal and the contractor, resulting in an international transaction. In the BoPs, Country B is shown as importing 100 and the contractor is shown as buying 100 of semi-processed goods and this amount is recorded under intermediate inputs like all other purchases of goods and services. In these conditions, Country A exports to Country B a good for processing, which is added to the production; the imported good in Country B is included to the intermediate consumption. The processed good arrives back in Country A (an import is recorded) and is included in the intermediate consumption. The value added of both countries is unaffected.

Figure 4.7: Records in national accounts, 1993 SNA

Indicator	Country A- Principal	Country B-Processor
<b>Production</b>		

- Goods	160 +100 ( from export)	150 (from export)
- Services		
Intermediate consumption		
- Goods	50+150(from import)	20+100(from import)
- Services	20	10
Value Added	40	20

In the 2008 SNA, the industry structure in Country B will change significantly. In the processing country, gross output will only reflect the value of the processing (50 MU) since no imputation will be made to value the semi-processed goods received from Country A. More, production will be classified as a service, not a good. Value added will remain the same; however, the relationship between GDP and gross output will change.

Figure 4.8: Records in national accounts, the 2008 SNA

Indicator	Country A- Principal	Country B-Processor
Production		
- Goods	160	
- Services		50
Intermediate consumption		
- Goods	50	20
- Services	70	10
Value Added	40	20

Figure 4.9: Records in foreign trade statistics

- Imports	50 (services)	
- Exports		50 (services)

### 5.5.2. Merchanting

Merchanting is defined as the purchase of a good by a resident (of the compiling economy) from a non-resident and the subsequent resale of the good to another non-resident, without the good entering the merchant's economy. The goods legally change ownership but do not physically enter the economy where the owner is resident.

The 2008 SNA recommends that goods acquired by global manufacturers, wholesalers and retailers and those cases of commodity dealing being settled in the commodity should be recorded as negative exports on acquisition and positive exports on disposal. The difference between the two appears in exports of goods but appears as the production of a service in the merchant's economy, analogous to trade margins applied to domestically traded goods. In the case where goods are acquired in one period and not disposed of until a subsequent period, they should appear in changes in inventories of the merchant even though these inventories are held abroad.

The revised treatment for merchanting in the 2008 SNA and BPM6 can be summarized as follows:

- The acquisition of goods by merchants is to be shown under goods as a negative export of the country in which the merchant is resident.
- The subsequent sale of the goods is shown under “*goods sold under merchanting*” as a positive export of the country in which the merchant is resident.
- The difference between sales and purchases of merchanted goods is shown as “*net exports of goods under merchanting*.” This item includes merchants' margins, holding gains and losses and changes in inventories in the form of goods under merchanting (where the merchanting activity spans two accounting periods). As a result of losses, or increases in inventories, net exports of goods under merchanting may be negative in some cases. If the merchant arranges for the goods to be packaged, or otherwise treated without affecting their condition, the merchant buys “manufacturing services on physical inputs owned by others” (see BPM6, box 10.1).
- Merchanting entries are valued at transaction prices as agreed by the parties, not at “free on board” (f.o.b.) prices.
- In national accounts, the difference between the sales and purchases of merchanted goods appears as the production of a service in the merchant's economy, consistently with the treatment of margins applied to domestically produced goods.

The new treatment can be summarised as requiring merchanting transactions in goods to be recorded in the goods account and not in services account in the BoPs and the national accounts. The recording requirement is gross, however all recording both of purchase and sale is on the credit (export) side with purchases (imports) being recorded as negative exports. In the supply and use tables the net surplus earned by the merchant is shown as a service.

### ***Numerical example***

It is assumed that all transactions occur within a recording period, with the goods physically moving from country B to country C directly without entering country A where the merchant is resident, as is presented in Figure 4.10.

Value of goods purchased by a resident of country A from a resident of B is 80 monetary units (MU), and the value of goods which the resident of country A resells to a resident of country C is of 100 MU. The treatment in BOP and national accounts is presented in Figure 4.11.

Figure 4.10: Merchanting – a numerical example

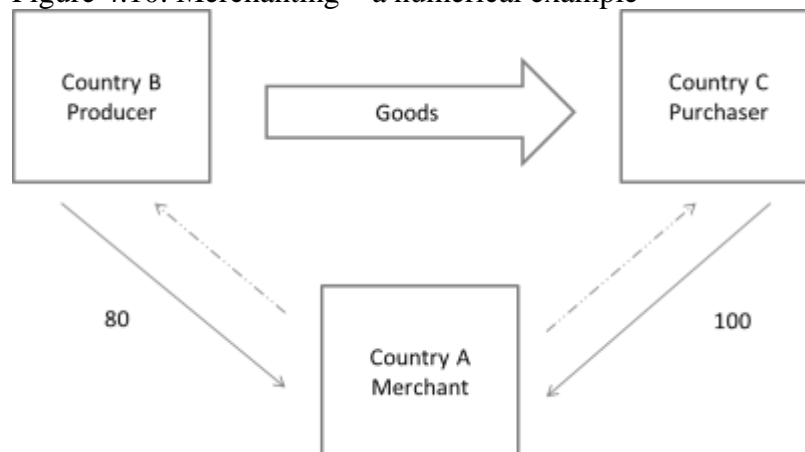


Figure 4.11: Treatment of merchanting in national accounts

1993 SNA / BPM5			2008 SNA / BPM6		
	Credit Export	Debit Import		Credit Export	Debit Import
<b>Country A</b>			<b>Country A</b>		
Goods	20		Goods under merchanting	100	
Services: merchanting			Goods under merchanting	(-80)	
			Net exports of goods under merchanting	20	
<b>Country B</b>			<b>Country B</b>		
Goods	80		Goods	80	
<b>Country C</b>			<b>Country C</b>		
Goods		100	Goods		100
<b>Global balance (Sum of above)</b>			<b>Global balance (Sum of above)</b>		
Goods	80	100	Goods	100	100
	20		-of which goods under merchanting	20	
Services: merchanting					

In the case when merchanting transactions straddle recording periods, they are recorded in two different years. The resident of country A purchases goods from the resident of country B in period  $t$  and resells the goods to a resident of country C in next period,  $t+1$ . The goods move from country B to country C directly, without entering country A. It is assumed that all transactions are settled by transfers of deposits. Country A records an increase in inventories in period  $t$ , and a corresponding fall in  $t+1$ .

Figure 4.12: Merchanting record in year T

1993 SNA / BPM5			2008 SNA / BPM6		
	Credit Export	Debit Import		Credit Export	Debit Import
<b>Country A</b>			<b>Country A</b>		
Goods		80	Goods under merchanting	-80	
<b>Country B</b>			<b>Country B</b>		
Goods	80		Goods	80	
<b>Country C</b>			<b>Country C</b>		
Goods			Goods		
<b>Global balance (Sum of above)</b>			<b>Global balance (Sum of above)</b>		
Goods	80	80	Goods	80	
			-of which goods under merchanting)	-80	

Figure 4.13: Merchanting record in year T+1

1993 SNA / BPM5			2008 SNA / BPM6		
	Credit Export	Debit Import		Credit Export	Debit Import
<b>Country A</b> Goods Services: merchanting		- 80 20	<b>Country A</b> Goods under merchanting	100	
<b>Country B</b> Goods			<b>Country B</b> Goods		
<b>Country C</b> Goods		100	<b>Country C</b> Goods	100	
<b>Global balance (Sum of above)</b> Goods Services: merchanting		20 20	<b>Global balance (Sum of above)</b> Goods -of which goods under merchanting)	100 100	100

More information is included in *"The impact of globalization on national accounts"*, United Nation, 2011, chapter 6: *"Merchanting"*.

## **Chapter 6. Case studies on the use of government accounts in national accounts**

### **6.1 Botswana**

#### **6.1.1 Introduction**

Government accounts are prepared by Statistics Botswana, an autonomous body formed the Statistics Act of 2009. Botswana's national accounts statistics are based on the 1993 System of National Accounts (1993 SNA) and are compiled on annual and quarterly basis. Annual accounts are released nine months after the reference year, and in detail in the annual report entitled "National Accounts Statistics of Botswana". Quarterly accounts are released ninety (90) days after the reference quarter.

#### **6.1.2 Coverage**

Government is defined as all units responsible for the implementation of public policies through the provision of primarily non-marketed services and the transfer of income supported by compulsory levies on other services. Botswana Government is divided into Central and Local government. Central government includes all units that are instruments to Botswana's central authority, whose jurisdiction extends to all parts of the country. Local government consists of government units which exercise an independent function in various cities, towns and districts. There are currently 16 local authorities and 12 land boards.

Government owned enterprises are excluded from the production side and included in the respective industrial sectors.

#### **6.1.3 Source of data**

The main source of data for Government accounts are government financial statements compiled by the Ministry of Finance and Development Planning (MFDP) under the office of the Accountant General. The accounts are available for each ministry and department. The financial statements are compiled on monthly and annual basis. Monthly financial statements become available on the 15<sup>th</sup> of each month while annual accounts are published within eight months after the end of financial year (March). Botswana government accounts are based on the international accounting standards, currently the government is working on the development of International Public Sector Standards (IPSAS).

The accounts are prepared using an automated system known as Government Account and Budgeting System (GABS). The monthly reports are posted on the MFDP intranet while annual accounts are published in a report entitled "Annual Statements of Accounts". The coding structure for the item-wise expenditure and revenue are based on the national coding structure which is not based on any international classification.

The accounts are prepared on cash basis. The Botswana government is in the process of moving from cash to accrual and it is hoped that this will be ready by 2019.

Within the MFDP there is a section called cash flow which is responsible for compiling the following tables classified in accordance with GFS 1986 manual, revenue, expense and expense by function of government. Monthly financial statements, annual statements of accounts and

consolidated tables are then passed to Statistics Botswana for national accounts compilation. Currently there is no formal agreement between the Ministry of Finance and Development Planning and Statistics Botswana on the exchange of data. The Ministry has a list of stakeholders to whom they send government accounts once they become available and Statistics Botswana is on the list and the Ministry is on the list of Statistics Botswana's list of stakeholders as well. Both institutions have access to each other's information even before it is published.

Data source for public enterprises are monthly and annual surveys as well as administrative records.

#### 6.1.4 Data limitation and challenges

Government transactions are recorded on cash basis instead of accrual as recommended by the SNA. Government operations are recorded on a fiscal basis, therefore fiscal year data are used to estimate value added of the calendar year assuming that there is not much difference between fiscal and calendar year data. Government finance statistics is still based on the 1986GFS manual instead of the 2001 manual.

Information received from the ministry is in hard copy and PDF files. Statistics Botswana has to re-capture the information and convert it to national accounts format.

Below is a bridge table showing how data from government financial statements are converted to national accounts statistics.

Figure 0.1.1: Botswana – Bridge table between government chart of accounts and national accounts statistics

Codes			SNA Codes
<b>20000</b>		<b>RECURRENT REVENUE</b>	
<b>21000</b>		<b>TAX REVENUE</b>	
	<b>21100</b>	<b>Income Tax</b>	
		<b>21110</b> Withholding Tax - Residents	D51
		<b>21120</b> Withholding Tax - Non Residents	D51
		<b>21130</b> Income Tax - Current Year	D51
		<b>21140</b> Late Payments	D51
	<b>21200</b>	<b>Mineral Tax</b>	
		<b>21210</b> Mineral Tax	D59
	<b>21300</b>	<b>Taxes on Property</b>	
		<b>21310</b> Death Duties	
		<b>21320</b> Transfer Duties	
	<b>21400</b>	<b>Taxes on Goods and Services</b>	
		<b>21410</b> Business & Professional Services	D29
		<b>21560</b> Value Added Tax	D21
		<b>21610</b> Motor Vehicle Licences	D29
		<b>21790</b> Sales Tax	D21
	<b>21800</b>	<b>Taxes On International Trade &amp; Transactions</b>	

Codes				SNA Codes
		21810	Customs Duties	D21
		21820	Excise Duty	D21
		21840	Export Duties	D21
	<b>21900</b>		<b>Other Taxes</b>	
		21910	Stamp Duties	D29
		21920	Other Taxes	D29
<b>22000</b>			<b>NON TAX REVENUE</b>	
	<b>22200</b>		<b>Interest</b>	
		22110	Profits From Public Enterprises	D42
		22200	Interest	D41
		22210	Interest: Parastatals (DDF)	D41
		22360	Interest: Local Authorities	D41
		22380	Interest: Deposits	D41
	<b>22500</b>		<b>Mineral Royalties/Dividend</b>	
		22500	Mineral Royalties/Dividend	D42
	<b>22600</b>		<b>Rent of Land</b>	
		<b>22600</b>	Rent of Land	D45
	<b>22700</b>		<b>Administration Fees and Charges</b>	
		22710	Rent of Buildings & Equipment	D45
		23010	Sale of Goods & Services	P11
		23210	Other Fees and Charges	D29/D45/D44
		23510	Fines & Forfeits	D11/D21/D29
		23560	Loan Repayment: Principal (DDF) - Parastatals	F4
		23630	Loan Repayment: Principal (DDF) - Local Authorities	F4
		23680	Other Revenue	D45/F4
<b>24000</b>			<b>CAPITAL REVENUE</b>	
	<b>24100</b>		<b>Sale of Fixed Capital</b>	
		24100	Sale of Fixed Capital	P51
	<b>24200</b>		<b>Sale of Land</b>	
		24200	Sale of Land	P51
	<b>24300</b>		<b>IMF Transactions (Revenue)</b>	
		24300	IMF Transactions (Revenue)	F1
	<b>24400</b>		<b>Sale of Livestock</b>	
		24400	Sale of Livestock	P51/P11
<b>25000</b>			<b>GRANTS</b>	
	<b>25100</b>		<b>External Grants</b>	
		25100	External Grants	D92/D99
	<b>25200</b>		<b>Internal Grants</b>	
		25200	Internal Grants	D92/D99



Codes			SNA Codes
<b>00000</b>		<b>RECURRENT EXPENDITURE</b>	
	<b>00100</b>	<b>Personal Emoluments</b>	
		00110 Salaries and Allowances	D11
	<b>00160</b>	<b>Pensions, Gratuities and Compensations</b>	
		00160 Pensions, Gratuities and Compensations	D11/D12
	<b>00200</b>	<b>Travelling and Transport (Internal)</b>	
		00200 Travelling and Transport (Internal)	P2
	<b>00300</b>	<b>Travelling and Transport (External)</b>	
		00300 Travelling and Transport (External)	P2
	<b>00400</b>	<b>General Expenses and Supplies</b>	
		00400 General Expenses and Supplies	P2/D11
	<b>00500</b>	<b>Departmental Services</b>	
		00500 Departmental Services	P2
	<b>00700</b>	<b>Maintenance and Running (Equipment)</b>	
		00700 Maintenance and Running (Equipment)	P2
	<b>00800</b>	<b>Maintenance and Running Expenses (Other)</b>	
		00800 Maintenance and Running Expenses (Other)	P2
	<b>00900</b>	<b>Institutional Running Expenses</b>	
		00900 Institutional Running Expenses	P2
	<b>01100</b>	<b>Government Hospitality</b>	
		01100 Government Hospitality	P2
	<b>01200</b>	<b>Training</b>	
		01200 Training	P2
	<b>01300</b>	<b>Councils, Conferences and Exhibitions</b>	
		01300 Councils, Conferences and Exhibitions	P2
	<b>01600</b>	<b>Materials and Requisites for Resale</b>	
		01600 Materials and Requisites for Resale	P2/P51
	<b>01700</b>	<b>Grants Subventions and Other Payments</b>	
		01700 Grants Subventions and Other Payments	D31/D39/D61/D73/D75
	<b>03700</b>	<b>Wildlife Conservation Education</b>	
		03700 Wildlife Conservation Education	P2
	<b>03800</b>	<b>Major Village Water Supply</b>	
		03800 Major Village Water Supply	P2/D92/D11
	<b>03900</b>	<b>Oil Storage Depots-Operation</b>	
		03900 Oil Storage Depots-Operation	P2
	<b>04100</b>	<b>Centralised Power Supply Systems</b>	
		04100 Centralised Power Supply Systems	P2
	<b>04200</b>	<b>Refunds of Revenue</b>	
		04200 Refunds of Revenue	
	<b>04300</b>	<b>Special Expenditure</b>	
		04300 Special Expenditure	P2/P51
	<b>04600</b>	<b>Overseas Addition (O.S.A.S)</b>	
		04600 Overseas Addition (O.S.A.S)	
	<b>04700</b>	<b>Miscellaneous Statutory Commitments</b>	
		04700 Miscellaneous Statutory Commitments	

Codes				SNA Codes
	<b>04800</b>		<b>Repayment of Principal-Government Bonds</b>	
		04800	Repayment of Principal	F3
	<b>04910</b>		<b>Repayment of Principal -Other Loans</b>	
		04910	Repayment of Principal -Other Loans	F4
	<b>05100</b>		<b>Payment of Interest</b>	
		05100	Payment of Interest	D41
	<b>05210</b>		<b>Payment of Interest -External Borrowing</b>	
		05210	Payment of Interest -External Borrowing	D41
<b>10000</b>			<b>DEVELOPMENT EXPENDITURE</b>	
	<b>10100</b>		Land	
		10101	Land Acquisition/Compensation (Dev Exp)	P51
		10102	Land Management(Dev Exp)	P51
		10103	Land Improvements(Dev Exp)	P51
		10104	Housing Schemes (Dev Exp)	P51
	<b>10200</b>		<b>Infrastructure</b>	
		10201	Roads Construction(Dev Exp)	P51
		10202	Roads Improvements(Dev Exp)	P51
		10203	Rail Construction (Dev Exp)	P51
		10204	Bridges(Dev Exp)	P51
		10205	Dams(Dev Exp)	P51
		10206	Rail Improvements (Dev Exp)	P51
		10207	Sewerage(Dev Exp)	P51
		10208	Sidewalk Construction (Dev Exp)	P51
		10209	Water Works(Dev Exp)	P51
		10211	Boreholes(Dev Exp)	P51
		10212	Airports (Dev Exp)	P51
		10213	Electrification (Dev Exp)	P51
		10214	Communications (Dev Exp)	P51
		10215	Transport Stations / Ports (Dev Exp)	P51
		10216	Landscaping (Dev Exp)	P51
		10217	Sports Infrastructure	P51
		10218	Fencing (Dev Exp)	P51
		10219	Other Infrastructure (Dev Exp)	P51
		10221	Mining Development	P51
	<b>10300</b>		<b>Buildings</b>	
		10301	Acquisition of Buildings (Development)	P51
		10302	Construction of Buildings	P51
		10303	Buildings Improvements (P20 001 to P50 000)	P51
		10304	Buildings Improvements (Over P50 000)	P51
	<b>10400</b>		<b>Machinery and Equipment</b>	
		10401	Machines (Dev Exp)	P51
		10402	Vehicles (Dev Exp)	P51
		10403	Aircraft (Dev Exp)	P51
		10404	Furniture(Dev Exp)	P2
		10405	Equipment (Dev Exp)	P51
		10406	Locomotives (Dev Exp)	P51

Codes				SNA Codes
		10407	Rolling Stock (Dev Exp)	P51
	<b>10500</b>		<b>Computerisation</b>	
		10501	Hardware (Dev Exp)	P2
		10502	Information Management Systems (Dev Exp)	P2
		10503	Software (Dev Exp)	P51
		10504	Cabling & Networking (Dev Exp)	P2
		10505	Computer Accessories (Dev Exp)	P2
		10506	Website Development (Dev Exp)	P51
	<b>10600</b>		<b>Training</b>	
		10601	Long term (Dev Exp)	P2
		10602	Short term (Dev Exp)	P2
	<b>10700</b>		<b>Professional Fees</b>	
		10701	Engineering/Architect Services (Dev Exp)	P2
		10702	Promotion / Advertising (Dev Exp)	P2
		10703	Election Expenses (Dev Exp)	P2
		10704	Quantity Surveys (Dev Exp)	P2
		10705	Mechanical/Electrical Services (Dev Exp)	P2
		10706	Accounting Services (Dev Exp)	P2
		10707	Auditing Services (Dev Exp)	P2
		10708	Recording / Archiving Services (Dev Exp)	P2
		10709	Technical Assistance	P2
	<b>10800</b>		<b>Research and Surveys</b>	
		10801	Research/Studies (Dev Exp)	P51
		10802	Surveys (Dev Exp)	P51
		10803	Commissions (Dev Exp)	P51
		10804	Feasibility Studies	P51
	<b>10900</b>		<b>Environment</b>	
		10901	Pollution Control (Dev Exp)	D39
		10902	Sanitation (Dev Exp)	P51
		10903	Waste Management (Dev Exp)	P51
		10904	Forestry Development (Dev Exp)	P51
		10905	Soil Conservation (Dev Exp)	P51
		10906	Veld Management (Dev Exp)	P51
		10907	Tourism (Dev Exp)	P2
		10908	Environmental Management Services (Dev Exp)	P2
		10909	Wildlife Conservation (Dev Exp)	P2
	<b>11100</b>		<b>Agriculture</b>	
		11101	Animal Disease Control (Dev Exp)	P2
		11102	Livestock Development (Dev Exp)	P51
		11103	Poultry Development (Dev Exp)	P2
		11104	Crop Production and Protection (Dev Exp)	D31
		11105	Horticulture (Dev Exp)	D75
		11106	Dairy (Dev Exp)	P51
	<b>11200</b>		<b>Community Support</b>	
		11201	Disaster Management (Dev Exp)	D75

Codes				SNA Codes
		11202	Grant Schemes (Dev Exp)	D75
		11203	Drought Relief (Dev Exp)	D75
		11204	Cooperatives (Dev Exp)	D75
	<b>11300</b>		<b>Culture and Recreation</b>	
		11301	Youth Programs (Dev Exp)	D75
		11302	Cultural Arts Programs (Dev Exp)	D75
		11303	Women and Gender Programs (Dev Exp)	D75
		11304	Library Books (Dev Exp)	D75
		11305	Labour Programs (Dev Exp)	D75
	<b>11850</b>		<b>Minerals</b>	
		11851	Investments	P51
		11852	Exploration	P51

## 1.2.1 Burundi

### 1.2.1. Sources of data for the compilation of government accounts

The budget is prepared by the General Directorate of Public Finance in cooperation with Treasury Directorate and Budget Directorate. The expenditures outlays are available by ministerial department, and under each department, headings present the purpose and economic nature of the expenditure.

The Department in charge of national accounts receives an electronic file from the Ministry of Finance. A first step of processing consists of linking the COFOG classification (used in public accounting) with national accounts transactions. Since the expenses within the budget are displayed for each of the four status of processing (i.e.: commitments, liquidations, order of pay and disbursements), the value in “order to pay” column is the one relevant for national accounts.

Once the linking is done, all elements for the calculation of Government production are singled out. The bridge table between COFOG classification and national accounts transactions is presented in Figure 0.2 of this case study.

The consolidated accounts are one of the administrative sources that track all revenue collected by the Government in a given year. This document is essential for compilation of national accounts because it provides all details about tax and non-tax revenues. The processing here consists to use linking table between source data and national accounts. This bridge table is presented in Figure 0..

In Burundi, social security sub-sector includes National Institute of Social Security (INSS), Mutual of Public Service (MFP) and the National Board of Pension and Annuity (ONPR). This last one was newly created was not yet taken into account in the national accounts.

The NSO collects financial statements produced by the INSS and MFP to calculate output of social security. In these financial statements, national accounts use the information on income and expenses (classes 6 and 7) and capital (class 2). The bridge table in Figure 0. and Figure 0. shows the process that leads to meet the needs of national accounts.

Municipality Budgets and Municipality Administrative Accounts are the main sources of data on income and expenditure of local public authorities. While Municipality Budget provides a forecast of revenue and expenditure for the financial years n and n-1 the administrative account lays out the real incomes and expenditures of the financial year. The Municipality Administrative Account is an accurate account of the implementation of the budget.

Both the Municipal Budget and Municipal Administrative Account are compiled into a single document called Annual balance sheet, collected in paper form. Data entry is done in National Accounts office and the processing is done with a view to adopt different rubrics of this document to national accounts transactions and classifications. One major difficulties faced is that there is no common accounting system for local authorities to standardize their accounts. A bridge table between statistics of municipal accounts and national accounts is presented in Figure 0..

Public administrative institutions and specialized state administrations (EPA and APE): These include Administrations organizations that generally come with a legal personality and which the

government entrusts a specialized functional expertise at national level. Most of them are often considered "Government operators". Controlled and financed mostly by the government, these organizations have mainly non-market activity.

Data of Public Administration and specialized state administrations come from financial reports which are collected in printed format. They provide data on expenditures and annual income of these administrative units. As for the special cases the processing of the information consists of entering the data and mapping them to corresponding national accounts concepts. The main difficulty is the absence of a common accounting system for these public institutions. Bridge tables for these public administration sources are similar to those presented in Figure 0..

It happens that financial reports of EPA and APE are not available for certain year, in which case the estimates of their expenditures and income are done according based grants received from the Government.

Figure 0.2.1: Burundi – Bridge table between COFOG classification and national accounts transactions

Finance code	Finance rubrics	National accounts heading code	National accounts rubrics
<b>STAFF EXPENDITURES</b>			
100016121 0001	Direct Compensation of employees with contract	0D100100A	Gross salaries of employees declared
100016124 0001	Allowances and premiums of employees with contract	0D100100A	Gross salaries of employees declared
100016126 0001	FAMILY ALLOWANCES	0D6002003	Direct social benefits offer by employers
100016141 0001	SALARIES AND ALLOWANCES OF POLITICAL STAFF	0D100100A	Gross salaries of employees declared
100016162 0001	CONTRIBUTION OF THE GOVERNMENT TO SOCIAL SECURITY of employees with contract	0D1002001	Social contributions paid by employers
200008616 10801	CONTRIBUTION OF THE GOVERNMENT TO SOCIAL SECURITY of employees with other status	0D1002001	Social contributions paid by employers
400011613 20815	DEPARTMENT OF ANIMAL HEALTH	0D100100A	Gross salaries of employees declared
<b>GOODS AND SERVICES</b>			
<b>POURCHASE GOODS AND SERVICES</b>			
100016232 0001	POSTAL AND PRESS CHARGES	0P2	Intermediate consumption
100016233 0001	CHARGE OF TELECOMMUNICATION	0P2	Intermediate consumption
100016236 0001	SUBSCRIPTION TO THE INTERNET	0P2	Intermediate consumption
100016251 0001	ADMINISTRATIVE BUILDING MAINTENANCE OF THE PRESIDENCY	0P2	Intermediate consumption
200001625 10001	MAINTENANCE OF CHARROI	0P2/P51	Intermediate consumption / Gross fixed capital formation
200001625 50001	MAINTENANCE OF PUBLIC BUILDINGS	0P2	Intermediate consumption
220001621 40001	OFFICIAL MISSIONS ABROAD	0P2 /0D100100 A	Intermediate consumption and / salary
220001621 60902	CHARGE OF MONITORING AND SUPERVISION OF WORKS	0D100100A	Gross salaries of employees declared
100016312 0001	Fuels & Lubricants	0P2	Intermediate consumption
200001632 10001	PURCHASE EQUIPMENT AND OFFICE SUPPLIES	0P2	Intermediate consumption
200001635 10001	WATER AND ELECTRICITY CONSUMPTION	0P2	Intermediate consumption
400010631 50801	PURCHASE LIQUID NITROGEN	0P2	Intermediate consumption

Finance code	Finance rubrics	National accounts heading code	National accounts rubrics
400011631 50801	SCIENCE AND VETERINARY PRODUCTS	0P2	Intermediate consumption
400016610 0008	WELCOME OF FOREIGN DELEGATION	0P2	Intermediate consumption
ALLOWANCES - CONTRIBUTIONS-SUBSIDIES AND EXEMPTIONS			
110053661 00801	OPERATING CHARGE	0D7003	Current transfers between public administrations
150052661 00801	SUBSIDIES	0D7003	Current transfers between public administrations
220001661 00903	SUPPORT TO NATIONAL REFERENCE LABORATORY	0D7003	Current transfers between public administrations
220001661 00801	PARTICIPATION IN HEALTH CARE	0D7003	Current transfers between public administrations
100016610 0001	NATIONAL COMMITTEE	0D7003	Current transfers between public administrations
400016610 0007	SUPPORT TO NATIONAL ASSOCIATION OF MEMBERS OF PARLEMENT	0D7005	Other various current transfers
400036662 0001	CONTRIBUTION TO THE SUPREME AUDIT INSTITUTIONS	0D7003	Current transfers between public administrations
800196662 0067	CONTRIBUTION TO EAC	0D7004	Current international cooperation
800206721 0001	Health care	0D6002004	Social benefits other than social transfers in kind
800206732 0001	EDUCATION FEES OF CHILDREN OF DIPLOMATS	0D6002003	Direct social benefits offer by employers
SOCIAL ASSISTANCE AND OTHER CHARGES			
200002673 10801	SCHOLARSHIP AND TRAINING	0D6002004	Social benefits other than social transfers in kind
220001673 50901	HEALTH INSURANCE CARD	0D6002003	Direct social benefits offer by employers
100012145 0001	SUPPORT FOR GOOD DEEDS	0D6003002	Transfers of individual non-market goods and services
100016721 0001	SOCIAL ASSISTANCE FUND	0D6002003	Direct social benefits offer by employers
100016721 0002	FRAIS FUNERAIRES	0D6002003	Direct social benefits offer by employers
800206721 0001	Health care	0D6002004	Social benefits other than social transfers in kind
800206732 0001	EDUCATION FEES OF CHILDREN OF DIPLOMATS	0D6002003	Direct social benefits offer by employers
150003671 10001	Pensions and annuities of former agents	0D6002004	Social benefits other than social transfers in kind
150003671 20001	PENSION FOR EX-CHIEF AND DEPUTY CHIEF	0D6002004	Social benefits other than social transfers in kind
TANGIBLE ASSETS			



Finance code	Finance rubrics	National accounts heading code	National accounts rubrics
200001212 20802	CONSTRUCTION OF AUDITORIUM FOR THE FACULTY OF MEDICINE	P51	Gross Fixed Capital Formation
200001212 20803	SANITATION OF UNIVERSITY CAMPUS KAMENGE	P51/0P2	Intermediate consumption / Gross Fixed Capital Formation
200001212 20833	EXTENSION CAMPUS Zege (HOMES AND AUDIENCES)	P51	Gross Fixed Capital Formation
200001214 30806	HOSPITAL EQUIPMENT	P51	Gross Fixed Capital Formation
100022143 0001	OFFICE EQUIPMENT	P51	Gross Fixed Capital Formation
400001201 00801	Research	P51	Gross Fixed Capital Formation

Figure 0.2.2: Burundi – Bridge table between government’s consolidated accounts and national accounts

Finance codes	Finance rubrics	Codes of operation of national accounts	National accounts rubrics
<b>A. INCOME TAX</b>			
<b>7111</b>	<b>Taxes on income, profits of individuals</b>		
7111100	Tax on personal income	OD5001	Income tax
7111200	Professional tax on compensation	OD5001	Income tax
7111300	Tax on income from movable capital	OD5001	Income tax
7111400	Standard deduction	OD5001	Income tax
7111500	Flat tax	OD5001	Income tax
7111800	Other taxes	OD5001	Income tax
<b>7112</b>	<b>Taxes on corporations</b>		Income tax
7112100	Tax on corporate income	OD5001	Income tax
7112300	Tax on income from movable capital	OD5001	Income tax
7112400	Standard deduction	OD5001	Income tax
<b>7141</b>	<b>General taxes on goods and services</b>		
7141100	Transaction tax - VAT on imports	OD200A	Non-deductible VAT
7141200	Domestic VAT	OD200A	Non-deductible VAT
7141300	Tax on the turnover of the tourism and hotel corporations	OD200E	Taxes on production
7141800	Other	OD200E	Taxes on production
<b>7142</b>	<b>Excise duties</b>		
7142100	Consumption tax on tobacco	OD200D	Other taxes on products
7142200	Consumption tax on beer	OD200D	Other taxes on products
7142300	Consumption tax on sugar	OD200D	Other taxes on products
7142400	Tax on sold fish	OD200D	Other taxes on products
7142600	Consumption tax on fuel	OD200D	Other taxes on products
7142800	Other	OD200D	Other taxes on products
<b>71441</b>	<b>Taxes on use of goods or taxes on activities</b>		
7144100	Taxes on vehicles and watercraft	OD200E	Taxes on production
7144110	Driving license	OP100A	Market production
7144180	Other	OD200E	Taxes on production
7144181	Others (including plate registration renewal)	OP100A	Market production
<b>71442</b>	<b>other taxes</b>		Market production
7144220	Permits to carry weapons	OP100A	Market production
7144230	License to cut wood	OD5009	Other current taxes
7144240	Tax slaughter of animals	OD200E	Taxes on production
7144250	Work permit	OD5009	Other current taxes
7144280	Other	OD200E	Taxes on production
<b>7148</b>	<b>Other taxes on goods and services</b>		
7148000	Other taxes on goods and services	OD200D	Other taxes on products
<b>7151</b>	<b>Customs duties on imports</b>		
7151100	Main customs duties	OD200B001	Duties
7151200	Fuel tax (including the portion allocated FRN)	OD200B006	Tax import duties

Finance codes	Finance rubrics	Codes of operation of national accounts	National accounts rubrics
7151300	Flat tax on parcels	0D200B008	Flat tax on parcels
7151800	Other	0D200B006	Tax import duties
<b>7152</b>	<b>Export taxes</b>		
7152100	Exit fees on plant products	0D200C003	Exit fees on other products and goods
7152200	Exit fees on animal skins	0D200C001	Exit fees on animal products
7152400	Exit fees on gold	0D200C002	Exit fees on mineral products
7152500	Exit fees of other mineral products	0D200C002	Exit fees on mineral products
7152800	Other	0D200C002	Exit fees on mineral products
<b>7158</b>	<b>Other taxes on international transactions and external trade</b>		
7158100	Customs penalties and confiscation of goods on entry fees	0D200B002	Customs penalties
7158200	Customs penalties and confiscation of goods on entry fees	0D200C003	Exit fees on other products and goods
7158300	Warehouse receipts ( stores fees)	0D200B003	Charge of storage
7158400	Tax toll road (assigned to FRN)	0D200B	Taxes and duties on imports (excluding VAT)
7158500	Revenue from the sale of goods	0D200B	Taxes and duties on imports (excluding VAT)
7158600	Tax border traffic	0D200B	Taxes and duties on imports (excluding VAT)
7158800	Other	0D200B	Taxes and duties on imports (excluding VAT)
<b>B. NON-INCOME TAX</b>			
<b>7211</b>	<b>Dividends</b>		
7211200	Dividends to financial corporations	0D4002001	Dividends
7211300	Dividends non-financial corporations	0D4002001	Dividends
<b>7212</b>	<b>Deduction on surpluses of quasi-corporation</b>		
7212800	Other	0D4002002	Revenues collected from quasi-corporations
<b>7213</b>	<b>Rents</b>		
7213100	Land rental	0D4005	Rents
7213200	Revenues and royalties stone quarries	0D4005	Rents
7213300	Royalties on the public domain	0D4005	Rents
<b>722</b>	<b>Sales of goods and services</b>		
7221000	Rental of buildings	OP100A	Market production
7222000	Sales of equipment and old furniture	P51	Disposal of investment
7223000	Print sales and marketing documentation	OP100A	Market production
7224000	Sales official bulletin of Burundi	OP100A	Market production
7225000	Benefits of health services	OP100A	Market production
7226000	Benefits of veterinary services	OP100A	Market production
7228000	License for pub	OP100A	Market production

Finance codes	Finance rubrics	Codes of operation of national accounts	National accounts rubrics
<b>723</b>	<b>Administrative duties</b>		
<b>7231</b>	<b>Fees of visas, passports and stays</b>		
7231100	Passports and travel documents	OP100A	Market production
7231200	Visas and passports from embassies	OP100A	Market production
7231300	Visas and foreign registrations	OP100A	Market production
<b>7232</b>	<b>Fees and permits for carrying out of activities</b>		
7232100	Tax building	OP100A	Market production
7232200	Verification of weights and measures	OP100A	Market production
7232300	Exit permit boats, maritime airworthiness certificate	OP100A	Market production
7232400	Vehicle Inspection	OP100A	Market production
7232500	Transportation authorization	OD5009	Other current taxes
7232600	License for pub	OD200E	Taxes on production
7232800	License for pub	OP100A	Market production
<b>7233</b>	<b>Various fees and royalties</b>		
7233100	Check in and publication of a brand	OD200E	Taxes on production
7233200	Litigation charge (justice)	OP100A	Market production
7233300	Minutes of road accidents	OP100A	Market production
7233400	Fees to services	OP100A	Market production
7233500	Computer fee (special fund customs)	OP100A	Market production
7233600	Administrative fee (special fund customs)	OP100A	Market production
7233700	Royalty tax certificates (special fund taxes)	OP100A	Market production
7233800	Other	OP100A	Market production
<b>724</b>	<b>Penalties</b>		
7241000	Violations of traffic regulations	OP100A	Market production
7242000	Violations of trade regulations	OP100A	Market production
7243000	Court penalties	OP100A	Market production
7248000	Other	OP100A	Market production
731	Budgetary grants (1)	OD7004	Current international cooperation
732	Donations on projects with external funding (2)	OD9009	Other capital transfers
7412000	Interest on loans and direct advances	OD4001	Interests
7811000	Sale of land or buildings	OD7005	Other various current transfers
7820000	Revenue from the liquidation of public enterprises	OD4002002	Revenues collected from quasi-corporations
7840000	Debt cancelled or affected by the prescription	Not taken into account	Other financial instruments
7850000	Fees remaining mission and provision	Not taken into account	Other financial instruments
7860000	Reimbursement salary wrongly charged	Not taken into account	Other financial instruments
7880000	Other	OD7005	Other various current transfers
<b>7153</b>	<b>COMESA compensation</b>		

Finance codes	Finance rubrics	Codes of operation of national accounts	National accounts rubrics
7153000	COMESA compensation	0D7004	Current international cooperation
<b>718</b>	<b>Other tax revenues</b>		
7182000	Penalties not attached to a tax	0D7005	Other various current transfers
7222000	Sales of equipment and old furniture	P51	Disposal of investment

Figure 0.2.3: Burundi – Financial report of the National Office for Social Security

Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
<b>A. CURRENT EXPENDITURES</b>			
<b>Pensions</b>			
6011	Old age pension	OD6002	Social benefits other than social transfers in kind
60111	Normal age pension	OD6002	Social benefits other than social transfers in kind
60112	Early pensions	OD6002	Social benefits other than social transfers in kind
6012	Disability pension	OD6002	Social benefits other than social transfers in kind
60131	Widows or widowers' pension	OD6002	Social benefits other than social transfers in kind
60132	Pensions fatherless or motherless	OD6002	Social benefits other than social transfers in kind
60133	Pensions fatherless and motherless	OD6002	Social benefits other than social transfers in kind
60134	Ascendants pensions	OD6002	Social benefits other than social transfers in kind
60141	Benefits to policyholders	OD6002	Social benefits other than social transfers in kind
60142	Allowances to widows and widowers	OD6002	Social benefits other than social transfers in kind
60143	Allowances for orphans	OD6002	Social benefits other than social transfers in kind
60144	Allowance ascending	OD6002	Social benefits other than social transfers in kind
6031	Survivors' pension	OD6002	Social benefits other than social transfers in kind
6041	Old-age and survivors allowances	OD6002	Social benefits other than social transfers in kind
6071	Mutual social charges	OD6002	Social benefits other than social transfers in kind
60241	Allowances for funeral expenses	OD6002	Social benefits other than social transfers in kind
60222	Incapacity benefits	OD6002	Social benefits other than social transfers in kind
60231	Disability pensions	OD6002	Social benefits other than social transfers in kind
60242	Charge of transporting the mortal remains	OD6002	Social benefits other than social transfers in kind
60243	Autopsy and preserved corpse	OD6003	Social benefits other than social transfers in kind
60251	Widows or widowers annuities	OD6002	Social benefits other than social transfers in kind

Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
60252	Orphans' parent annuities	0D6002	Social benefits other than social transfers in kind
60254	Ascendants annuities	0D6002	Social benefits other than social transfers in kind
60271	Mutual of civil servants	0D6002	Social benefits other than social transfers in kind
60221	Per diem	0D6002	Social benefits other than social transfers in kind
60219	Fees for doctors	0D6003	Social transfers in kind
653	Family benefits	0D600203	Direct social benefits offer by employers
6564	Death benefits	0D600203	Direct social benefits offer by employers
6021	Medical Care	0D6003	Social transfers in kind
60210	Medical assistance dental surgery	0D600301	Social transfers in kind
60211	Dental and orthopaedic implants	0D600301	Social transfers in kind
60212	Prostheses supplies, pharmaceuticals and accessories	0D600301	Social transfers in kind
60213	Hospitalization	0D6003	Social transfers in kind
60214	Dental equipment and eye protection	0D600301	Social transfers in kind
60215	Protection orthopaedic equipment	0D600301	Social transfers in kind
60216	Functional rehabilitation, re-education. reclassification	0D6003	Social transfers in kind
60217	Transport of victims	0D6003	Social transfers in kind
60218	Specialized care abroad	0D6003	Social transfers in kind
<b>STAFFEXPENDITURES</b>			
623	Transportation and employee travel	0D100100A	Gross salaries of employees declared
6511	Base salary	0D100100A	Gross salaries of employees declared
6512	Extra time work	0D100100A	Gross salaries of employees declared
6513	Bonus	0D100100A	Gross salaries of employees declared
6515	Compensation function	0D100100A	Gross salaries of employees declared
652	Housing allowances	0D100100A	Gross salaries of employees declared
6516	Merit awards	0D100100A	Gross salaries of employees declared

Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
6516	Representation allowance (agents)	0D10010 0A	Gross salaries of employees declared
6517	Bonus	0D10010 0A	Gross salaries of employees declared
6543	Participation in the restoration of staff	0D10010 0A	Gross salaries of employees declared
6551	Severance pay	0D10010 0A	Gross salaries of employees declared
6552	Compensation of notice	0D10010 0A	Gross salaries of employees declared
6565	Allowance unused leave	0D10010 0A	Gross salaries of employees declared
6566	End bonuses career	0D10010 0A	Gross salaries of employees declared
6567	Travel allowances	0D10010 0A	Gross salaries of employees declared
6569	Birthday gifts	0D10010 0A	Gross salaries of employees declared
657	Other personnel expenditures	0D10010 0A	Gross salaries of employees declared
633	Legal fees	0D10010 0B	Gross salaries of employees non-declared
6343	Hire labour	0D10010 0B	Gross salaries of employees non-declared
6441	Compensation of members the Board of Directors	0D10010 0B	Gross salaries of employees non-declared
6441	Attendance of members of the Board of Directors	0D10010 0B	Gross salaries of employees non-declared
6442	Remuneration of auditors	0D10010 0B	Gross salaries of employees non-declared
6444	Remuneration of other participants in the Board of Directors	0D10010 0B	Gross salaries of employees non-declared
65411	INSS social security contributions, pension	0D10020 01	Social contributions paid by employers
65412	Social INSS Charges	0D10020 01	Social contributions paid by employers
6542	Mutual social charges	0D10020 01	Social contributions paid by employers
665	Transaction tax on rents	0D200E	Taxes on production
6621	Property taxes	0D200E	Taxes on production
673	Interest on borrowings	0D4001	Interests
674	Interest and bank charges	0D4001	Interests
679	Other interests	0D4001	Interests
6314	Ground rent	0D4005	Rent
673	Interest on borrowings	0D4001	Interests



Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
674	Interest and bank charges	OD4001	Interests
<b>Taxes on property</b>			
6621	Property taxes	OD5002	Taxes on property
6622	Taxes on vehicles	OD5002	Taxes on property
6629	other taxes	OD5001	Taxes on income
661	Tax on rental income	OD5001	Taxes on income
664	Taxes on investment income	OD5001	Taxes on income
669	Tax penalties	OD5001	Taxes on income
664	Taxes on investment income	OD5001	Taxes on income
<b>Other current transfers</b>			
6451	Contributions A.I.S.S.	OD7004	Current international cooperation
6452	Contributions AEB	OD7005	Other various current transfers
6453	Contributions BIT	OD7004	Current international cooperation
6454	Contributions CRADAT	OD7004	Current international cooperation
6455	Allocation of funds to sports	OD7005	Other various current transfers
6456	Subsidies to social work	OD7005	Other various current transfers
6459	Other contributions and grants (ECASSA)	OD7005	Other various current transfers
646	Penalties for late payment	OD7005	Other various current transfers
6496	Penalties for late payment	OD7005	Other various current transfers
<b>Purchases of goods and services</b>			
6171	Water and electricity	OP2	Intermediate consumption
6172	Fuel and lubricants	OP2	Intermediate consumption
6174	small tools	OP2	Intermediate consumption
6175	Articles and cleaning products	OP2	Intermediate consumption
6176	Print and office supplies	OP2	Intermediate consumption
61791	Other supplies used (opad)	OP2	Intermediate consumption
61792	Other supplies used (opef)	OP2	Intermediate consumption
622	Transport and travel non-employees	OP2	Intermediate consumption
626	Auxiliary transport services	OP2	Intermediate consumption
6311	Rents and maintenance charges of buildings	OP2	Intermediate consumption
6312	Rental vehicles	OP2	Intermediate consumption
6312	Rental equipment and other	OP2	Intermediate consumption
6314	Rentals of land in Gitega, Ngozi and Bururi	OP2	Intermediate consumption
6316	Rental room	OP2	Intermediate consumption
6316	Rental furniture	OP2	Intermediate consumption
6321	Maintenance and repair of buildings	OP2/P51	Intermediate consumption / Gross Fixed Capital Formation
6322	Maintenance and repair of furniture and house equipment	OP2	Intermediate consumption
6323	Maintenance and repair of vehicles	OP2/P51	Intermediate consumption / Gross Fixed Capital Formation

Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
6324	Maintenance and repair of machines and other office equipment	OP2/P51	Intermediate consumption / Gross Fixed Capital Formation
6325	Fixtures, fittings and equipment	P51	Gross Fixed Capital Formation
63252	Layout, design and install (opef)	P51	Gross Fixed Capital Formation
6326	Maintenance and repair of furniture and office equipment	OP2	Intermediate consumption
6341	Bank charges	OP2	Intermediate consumption
63421	Postage	OP2	Intermediate consumption
63422	Phones	OP2	Intermediate consumption
63423	Telegrams; telex and internet	OP2	Intermediate consumption
63424	Mailboxes	OP2	Intermediate consumption
63425	Auditing I.N.S.S	OP2	Intermediate consumption
6351	Representation expenses	OP2	Intermediate consumption
6344	Study organisms	OP2	Intermediate consumption
63451	Representation expenses	OP2	Intermediate consumption
63452	Mission expenses in the country	OP2	Intermediate consumption
63453	Mission expenses abroad	OP2	Intermediate consumption
6346	Advertising charges and information	OP2	Intermediate consumption
6347	Documentation and subscription	OP2	Intermediate consumption
6348	General litigation expenses	OP2	Intermediate consumption
6349	Other purchases of external services	OP2	Intermediate consumption
64322	Fire insurance buildings	OP2/D70-01	Intermediate consumption / Net premiums insurance damage
6457	Conference fee and seminars	OP2	Intermediate consumption
6494	Purchase tender dossier	OP2	Intermediate consumption
6497	Funeral expenses, other people	OP2	Intermediate consumption
6544	Pharmaceutical costs, laboratory, medical and hospital care	OD10010-0A	Gross salaries of employees declared
6561	Benefits in kind	OD10010-0A	Gross salaries of employees declared
<b>Fixed assets</b>			
2014	Acquisition and development of capital	P51	Gross Fixed Capital Formation
2059	Software	P51	Gross Fixed Capital Formation
2112	Built-up land	P51	Gross Fixed Capital Formation
221	Large avenue building	P51	Gross Fixed Capital Formation
223	Vehicles equipment	P51	Gross Fixed Capital Formation
2241	Office furniture	P51	Gross Fixed Capital Formation
2242	Furniture and equipment for home	P51	Gross Fixed Capital Formation
2243	Furniture and medical equipment	P51	Gross Fixed Capital Formation
2254	Office equipment and computers	P51	Gross Fixed Capital Formation
2257	Operating machine	P51	Gross Fixed Capital Formation
2252	Big tools	P51	Gross Fixed Capital Formation
2262	Fixtures, fittings and equipment	P51	Gross Fixed Capital Formation

Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
2263	INSS building roof layout	P51	Gross Fixed Capital Formation
231	Construction of apartments Q.ZEIMET	P51	Gross Fixed Capital Formation
232	Other on-going construction	P51	Gross Fixed Capital Formation
2311	Construction of two agencies (Bururi and Ngozi)	P51	Gross Fixed Capital Formation
2312	Construction of building for office use with 9 floors	P51	Gross Fixed Capital Formation
2313	Construction of a medical unit	P51	Gross Fixed Capital Formation
2514	Construction of the villa Kinindo	P51	Gross Fixed Capital Formation
22543	Medical equipment	0P2/P51	Intermediate consumption / Gross Fixed Capital Formation
229	Other equipment	0P2	Intermediate consumption
<b>Capital transfers</b>			
262	Capital participation BUMICO	0D9009	Other capital transfers
<b>B.INSS REVENUE</b>			
<b>Social contributions</b>			
700	Year 1997 contributions	0D6001	Social contributions
701	Technical revenue – pensions	0D6001	Social contributions
700	Contributions past years	0D6001	Social contributions
703	Technical revenue, supplements delay	0D6001	Social contributions
7031	Technical revenue, supplements delay pension	0D6001	Social contributions
7032	Technical revenue, supplements delay R.P	0D6001	Social contributions
702	Technical revenue -RP	0D6001	Social contributions
7041	Assignments included revenue – pensions	0D6001	Social contributions
7042	Assignments included revenue R.P	0D6001	Social contributions
<b>Other revenue</b>			
7493	Insurance benefits	0D60020 02	Social insurance benefits of private pension
7499	Other income and various profits (opef)	0D4004	Property income attributed to the shareholders
7498	Other income and various profits (opad)	0D4004	Property income attributed to the shareholders
751	Revenues for investment management	0D4001	Interests
771	Interest on loans	0D4001	Interests
772	Interest on treasury bills and certificates	0D4001	Interests
773	Interests of other loans	0D4001	Interests
774	Bank interest	0D4001	Interests
775	Dividends collected	0D40020 01	Dividends
776	Revenue bonds	0D4001	Interests
777	Interest on investments	0D4001	Interests
<b>Market production</b>			
705	Commissions received R.P	0P100A	Market Production

Accounting code	INSS rubrics	National accounts heading code	National accounts rubrics
715	Rental income for the year	OP100A	Market Production
715	Rental income past years	OP100A	Market Production

Figure 0.2.4: Burundi – Public service mutual insurance

MFP Codes	MFP rubrics	National accounts heading code	National accounts rubrics
Financial report of MFP			
		Codes of Operation of national accounts	National accounts rubrics
MFP Codes	MFP rubrics		
A. CURRENT EXPENDITURES			
STAFF EXPENDITURES			
6510	Base salaries	0D100100A	Gross salaries of employees declared
6510	Bonus, Fees and extra time allowance	0D100100A	Gross salaries of employees declared
6518	Fund allowance	0D100100A	Gross salaries of employees declared
6519	Travel allowance	0D100100A	Gross salaries of employees declared
6520	Housing allowances	0D100100A	Gross salaries of employees declared
6520	Non-operating housing allowance	0D100100A	Gross salaries of employees declared
6530	Compensation of termination	0D100100A	Gross salaries of employees declared
6560	gratification	0D100100A	Gross salaries of employees declared
65431	CONTRIBUTION REQUIRED. NATIONAL SOLIDARITY (other social security contributions)	0D100100A	Gross salaries of employees declared
656	Other employee benefits	0D100100A	Gross salaries of employees declared
6561	Participation in housing	0D100100A	Gross salaries of employees declared
6564	Thirteenth month bonus	0D100100A	Gross salaries of employees declared
065	Personnel expenditures (non-operating)	0D100100A	Gross salaries of employees declared
650	Base salary (non-operating)	0D100100A	Gross salaries of employees declared
6560	Gratification (not operating)	0D100100A	Gross salaries of employees declared
651	Bonus and fees non-operating	0D100100A	Gross salaries of employees declared

MFP Codes	MFP rubrics	National accounts heading code	National accounts rubrics
	Staff expenditures non-operating	0D100100A	Gross salaries of employees declared
06514	Compensation risk	0D100100A	Gross salaries of employees declared
633	Fees and expenses acts	0D100100B	Gross salaries of employees non-declared
6343	Hire labour	0D100100B	Gross salaries of employees non-declared
6541	National Institute of Social Security (Employer's)	0D1002001	Social contributions paid by employers
6542	Mutual of Public Service (Employer's)	0D1002001	Social contributions paid by employers
	Selected National Institute of Social Security (non-operating)	0D1002001	Social contributions paid by employers
6542	Retained Mutual of Public Service (non-operating)	0D1002001	Social contributions paid by employers
	Taxes on property		
664	Taxes on investments and securities	0D5009	Other current taxes
	Property taxes	0D200E	Taxes on production
	Other current transfers		
6451	International contributions, Association of Social Security	0D7004	Current international cooperation
6452	Contributions A.I.M.	0D7004	Current international cooperation
6453	Contribution A.E.B.	0D7005	Other various current transfers
6455	Subsidies	0D7005	Other various current transfers
646 et 6454	Donations and sponsors	0D7005	Other various current transfers
0652	Housing allowances previous exercises	0D7005	Other various current transfers
7440	Products to be recovered from other insurers	0D7005	Other various current transfers
Purchases of goods and services			
6171	Water and electricity	0P2	Intermediate consumption
06171	Water and electricity (non-operating)	0P2	Intermediate consumption
6172	Fuel and lubricant	0P2	Intermediate consumption
6175	Products and other maintenance items	0P2	Intermediate consumption
61761	Printing	0P2	Intermediate consumption
6176	Office supplies	0P2	Intermediate consumption
6179	Raw materials and other supplies	0P2	Intermediate consumption
6174	Small tools	0P2	Intermediate consumption
62	Transport consumed	0P2	Intermediate consumption

MFP Codes	MFP rubrics	National accounts heading code	National accounts rubrics
6311	Rent expense	OP2	Intermediate consumption
6322	E & R Furniture	OP2	Intermediate consumption
06323	E & R matt. transport (ET)	OP2	Intermediate consumption
634	Other external services	OP2	Intermediate consumption
6341	Bank charges and Agios	OP2	Intermediate consumption
6342	Post, telex, telecommunication.	OP2	Intermediate consumption
6344	Research organization	OP2	Intermediate consumption
6345	Representation expenses, missions and receptions	OP2	Intermediate consumption
06345	Representation expenses, missions and receptions (non-operating)	OP2	Intermediate consumption
6346	Advertising charges	OP2	Intermediate consumption
6347	Documentation	OP2	Intermediate consumption
6347	Documentation (non-operating)	OP2	Intermediate consumption
6348	Litigation	OP2	Intermediate consumption
6349	Various administrative charges	OP2	Intermediate consumption
6431	Vehicle insurance	OP2/OD7001	Intermediate consumption / net non-life insurance premium
6441	Directors' remuneration.	OD100100B	Gross salaries of employees non-declared
6442	Compensation commissioner account (associated remuneration-)	OD100100B	Gross salaries of employees non-declared
6493	Fees organization of Xth Anniversary.	OP2	Intermediate consumption
6562	Staff training	OP2	Intermediate consumption
06179	Raw materials and other supplies	OP2	Intermediate consumption
06341	Fees and Agios Bank (non-operating)	OP2	Intermediate consumption
06342	Post, telex, telecommunication.	OP2	Intermediate consumption
0634	External purchase services (non-operating)	OP2	Intermediate consumption
06345	Mission costs and reception (non-operating)	OP2	Intermediate consumption
	Hardware	OP2	Intermediate consumption
	Mattress	OP2	Intermediate consumption
06324	Maintenance and repair (M & R) office supplies	OP2	Intermediate consumption
6321	Maintenance and repair buildings	OP2/P51	Intermediate consumption / Gross fixed capital formation
6323	Maintenance and repair supplies transport	P51/OD1001	Gross Fixed Capital Formation/ salary
6324	Maintenance and repair supplies office and IT	P51/OD1001	Gross Fixed Capital Formation/ salary
6325	Maintenance and repair hardware	P51/OD1001	Gross Fixed Capital Formation/ salary
6326	Maintenance and repair ETB management	P51	Gross Fixed Capital Formation
8400	Results on disposal estate assets	P51	Gross Fixed Capital Formation
Investments			

MFP Codes	MFP rubrics	National accounts heading code	National accounts rubrics
2200	Buildings	P51	Gross Fixed Capital Formation
2220	Transportation equipment	P51	Gross Fixed Capital Formation
2240	Office furniture	P51	Gross Fixed Capital Formation
2251	Office equipment	P51	Gross Fixed Capital Formation
2252	Hardware	P51	Gross Fixed Capital Formation
22543	Medical equipment	P51/OP2	Gross Fixed Capital Formation/ or intermediate consumption
226	Fixtures, interior, and facilities	P51	Gross Fixed Capital Formation
229	Other material	P51/OP2	Gross Fixed Capital Formation/ or intermediate consumption
2310	Construction	P51	Gross Fixed Capital Formation
2010	Fixed charges	P51	Gross Fixed Capital Formation
2052	Software licenses	P51	Gross Fixed Capital Formation
2053	Computer systems	P51	Gross Fixed Capital Formation
2231	Light vehicles	P51	Gross Fixed Capital Formation
6175	Spare parts and technical tools	P51	Gross Fixed Capital Formation
22500000	Machinery and other equipment	P51	Gross Fixed Capital Formation
INSS revenue			
	Income		
070	Contribution (non-operating)	0D6001	Social contributions
	Contributions (non-operating)	0D6001	Social contributions
7010	Contributions government + assured	0D6001	Social contributions
7040	Corporations contributions	0D6001	Social contributions
7060	Contributions councils	0D6001	Social contributions
7001	Contribution civil service	0D6001	Social contributions
7002	Military contribution	0D6001	Social contributions
7003	Contributions political institutions	0D6001	Social contributions
7004	Contributions companies and public institution.	0D6001	Social contributions
7005	Contributions directions in self-management	0D6001	Social contributions
7006	Cit. SEAD and ITAB	0D6001	Social contributions
7007	Contributions of projects	0D6001	Social contributions
7008	Contributions of programs	0D6001	Social contributions
7009	Contributions of Various services	0D6001	Social contributions
7010	Contributions independent hospitals	0D6001	Social contributions
7011	Contributions of higher education institutions and public universities	0D6001	Social contributions
7012	Contributions. Private education institutions	0D6001	Social contributions
7013	Contributions of associations	0D6001	Social contributions
7014	Other contributions	0D6001	Social contributions
7015	Common contributions	0D6001	Social contributions
7016	Increase fees for late payment	0D6001	Social contributions



MFP Codes	MFP rubrics	National accounts heading code	National accounts rubrics
070	Contributions (non-operating)	0D6001	Social contributions
704	Increase fees for late payment	0D6001	Social contributions
	Other revenue		
7600	Operating subsidies	0D3009	Other subsidies on production
0'775	Bank interest (non-operating)	0D4001	Interests
7700	Interest and dividends	0D4001	Interests
7732	Interest on various credits	0D4001	Interests
7740	Bank interest	0D4001	Rents
0774	Bank interest(non-operating)	0D4001	Interests
077521	Dividends collected	0D4002001	Dividends
0775	Dividends collected (non-operating)	0D4002001	Dividends
775	CASH DIVIDEND	0D4002001	Dividends
	Market production		
071	Rental income (non-operating)	0P100A	Market production
7150	Rental income	0P100A	Market production
7150	Rental income (non-operating)	0P100A	Market production
	Operating expenses		
600	Services (non-operating)	0D6002001	Social security benefits other than social transfers in kind
6010	Pharmacy benefits	0D6002001	Social security benefits other than social transfers in kind
6011	Drug charges	0D6002001	Social security benefits other than social transfers in kind
	Benefit private pharmacies and hospitals	0D6002001	Social security benefits other than social transfers in kind
6012	Drug charges	0D6002001	Social security benefits other than social transfers in kind
6013	Armed forces services products	0D6002001	Social security benefits other than social transfers in kind
6019	Prescription spectacles	0D6003001	Social security benefits in kind
6031	Medical procedures and hospitalization	0D6002001	Social security benefits other than social transfers in kind
6032	Mini health prompting MEDICAM	0D6002001	Social security benefits other than social transfers in kind
6032	Medical procedures and hospitalization (benefits hospitalizations autonomous hospitals)	0D6002001	Social security benefits other than social transfers in kind
6014	Services, religious associations	0D6002001	Social security benefits other than social transfers in kind
6051	Services, armed forces	0D6002001	Social security benefits other than social transfers in kind
6015	Services, pharmacies MFP	0D6002001	Social security benefits other than social transfers in kind

MFP Codes	MFP rubrics	National accounts heading code	National accounts rubrics
6018	Community health centre	0D6002001	Social security benefits other than social transfers in kind
6024	A.M.C.S.C (Community Benefits)	0D6002001	Social security benefits other than social transfers in kind
6022	MINI HEALTH A.M.	0D6002001	Social security benefits other than social transfers in kind
6021	FREcnar AM11 / 04 (autonomous acts outpatient hospital services)	0D6002001	Social security benefits other than social transfers in kind
6025	CNAR	0D6002001	Social security benefits other than social transfers in kind
6016	Pharmacies benefit hospitals autonomous ( non-operating)	0D6002001	Social security benefits other than social transfers in kind
06011	Net private benefits pharmacy HE (medical records)	0D6002001	Social security benefits other than social transfers in kind
06013	NET HE FRE F.A	0D6002001	Social security benefits other than social transfers in kind
06018(060016)	CDS P.P H.E	0D6002001	Social security benefits other than social transfers in kind
06021	FREcnar AM11 / 04 (autonomous acts outpatient hospital services)	0D6002001	Social security benefits other than social transfers in kind
06024	Community health centre (non-operating)	0D6002001	Social security benefits other than social transfers in kind
6530	Family benefits	0D6002003	Direct social benefits offer by employers
6530	Family services non-operating	0D6002003	Direct social benefits offer by employers
6512	Family allowances not exempt	0D6002003	Direct social benefits offer by employers
6553(6554)	Damage and interests (allocation of death)	0D6002004	Direct social benefits offer by employers
6060	Prostheses	0D6003001	Social benefits in kind
6544	Medical expenses for staff & members of the Board of Directors	0D6003001	Social benefits in kind
06519	Medical charges for staff (non-operating)	0D6003001	Social benefits in kind

Figure 0.2.5: Burundi – Municipality financial statements

Local council rubrics	National accounts heading code	National accounts rubrics
REVENUES		
Tax cycles	0D200E	Taxes on production
Mopeds tax by vehicle	0D200E	Taxes on production
Tax on livestock	0D200D	Other taxes on products
Sewing machine	0D200E	Taxes on production
Issuance of birth certificates, marriage, death and recognition children	0P100A	Market production
Issuance of certificates of birth, full name and marital status	0P100A	Market production
Issuance of a certificate of family composition and Health Insurance Card	0P100A	Market production
Issuance of National Identity Card	0P100A	Market production
Registration with marriage	0P100A	Market production
Authorization to sell cows other than the place of origin	0P100A	Market production
Certification of new commercial	0P100A	Market production
Administrative penalty	0P100A	Market production
Judicial revenue	0P100A	Market production
Rental of marshland	0D4005	Market production
Sales and property and boundary	0P100A	Market production
Registering a property assigned or purchased	0P100A	Market production
Allocation of construction land in Camazi	0P100A	Market production
Sell groudut bag 100Kg	0D200E	Taxes on production
Fresh cassava retail	0D200E	Taxes on production
Selling sweet potato retail	0D200E	Taxes on production
Selling potato retail	0D200E	Taxes on production
Retail sale of taro	0D200E	Taxes on production
Sale of dry bean retail	0D200E	Taxes on production
Sale of small dry peas retail	0D200E	Taxes on production
Sale of cassava flour, corn, etc.	0D200E	Taxes on production
Sale of green banana by regime	0D200E	Taxes on production
Sell tomato basket or retail	0D200E	Taxes on production
Sale of cabbage per bag or retail	0D200E	Taxes on production
Sale of grain maize	0D200E	Taxes on production
Sale of grain sorghum or finger millet	0D200E	Taxes on production
Rice sales by location	0D200E	Taxes on production
Sale of palm oil retail	0D200E	Taxes on production
Selling fruit and vegetables	0D200E	Taxes on production
Retail sale of onions	0D200E	Taxes on production
Sale of fish and ndagala	0D200E	Taxes on production
Sundries shops	0D200E	Taxes on production
Tax on salt	0D200E	Taxes on production
Tobacco tax	0D200E	Taxes on production

Local council rubrics	National accounts heading code	National accounts rubrics
Tax on oil	0D200E	Taxes on production
Tax mats	0D200E	Taxes on production
Tax rolls	0D200E	Taxes on production
Tax pots by placement	0D200E	Taxes on production
Small restaurants	0D200E	Taxes on production
Small restaurants by market day	0D200E	Taxes on production
Cabarets local beer	0D200E	Taxes on production
Selling banana beer	0D200E	Taxes on production
Sale of sorghum beer	0D200E	Taxes on production
Cabarets industrial beers	0D200E	Taxes on production
Sell locker "primus" daily market	0D200E	Taxes on production
Wholesale cattle	0D200E	Taxes on production
Selling small livestock	0D200E	Taxes on production
Sale of poultry or other barnyard animals	0D200E	Taxes on production
Slaughter cattle	0D200E	Taxes on production
Small livestock slaughter	0D200E	Taxes on production
Sale of skins large and small livestock	0D200E	Taxes on production
Rental market stalls	0P100A	Market production
Tissues and fripperies	0D200E	Taxes on production
Various hardware	0D200E	Taxes on production
Grilled meat	0D200E	Taxes on production
Mill operation	0D200E	Taxes on production
Operating sewing machine	0D200E	Taxes on production
Operating rocker market day	0D200E	Taxes on production
Load of food products	0D200E	Taxes on production
Loading sorghum	0D200E	Taxes on production
Loading corn	0D200E	Taxes on production
Loading eleusine	0D200E	Taxes on production
Loading bean	0D200E	Taxes on production
Loading rice paddy	0D200E	Taxes on production
Loading peanut	0D200E	Taxes on production
Loading white rice	0D200E	Taxes on production
Loading cassava	0D200E	Taxes on production
Products reforestation	0D200E	Taxes on production
loading gravel quarry	0D200E	Taxes on production
Loading bricks, tiles and tiles	0D200E	Taxes on production
Truck parking in the centre of trading	0D200E	Taxes on production
Shoemaking by location	0D200E	Taxes on production
Carpentry workshop	0D200E	Taxes on production
Tax crafts	0D200E	Taxes on production
Repair cycle / market	0D200E	Taxes on production
Operating of quarry and clay	0D200E	Taxes on production

Local council rubrics	National accounts heading code	National accounts rubrics
Contribution of population	OD7005	Other various current transfers
Expenses		
Salary of municipal staff	OD10010 0A	Gross salaries of employees declared
Collectors rebates aid	OD10010 0A	Gross salaries of employees declared
Attendance fee municipal councillors	OD10010 0A	Gross salaries of employees declared
Attendance fee of hill advisers	OD10010 0A	Gross salaries of employees declared
Salary chiefs hills	OD10010 0A	Gross salaries of employees declared
Bonus of advisers	OD10010 0A	Gross salaries of employees declared
Operating expenses of the municipal council	OD10010 0A	Gross salaries of employees declared
Consulting fees	OD10010 0B	Gross salaries of employees non declared
Purchase office equipment	OP2	Intermediate consumption
Buy communal values	OP2	Intermediate consumption
Buy NIC	OP2	Intermediate consumption
Care expenses and carrying values	OD10010 0B	Gross salaries of employees non declared
Mission expenses of accountant	OP2	Intermediate consumption
Sport, leisure and equipment	OP2	Intermediate consumption
Maintenance of municipal buildings	OP2	Intermediate consumption
Postage, telex, telecommunication	OP2	Intermediate consumption
Sawn boards and planks	OP2	Intermediate consumption
Ceremonial costs (council)	OP2	Intermediate consumption
Public assistance and charity	OP2	Intermediate consumption
Assistance to needy students	OP2	Intermediate consumption
Moving prisoners Cankuzo	OP2	Intermediate consumption
Unforeseen	OP2	Intermediate consumption
Moving the administrator	OP2	Intermediate consumption
Communal vehicle insurance	OP2	Intermediate consumption
Mission expenses of the administrator	OP2	Intermediate consumption
Fee information	OP2	Intermediate consumption
Maintenance and repair of vehicle	OP2	Intermediate consumption
Maintenance of communal bike	OP2	Intermediate consumption
Mission expenses of driver	OP2	Intermediate consumption
Charge of hygiene and public health	OP2	Intermediate consumption
Ceremonial charge to the province level	OP2	Intermediate consumption

Local council rubrics	National accounts heading code	National accounts rubrics
Contribution of the Council in PRADECS	0D7003	Current transfers between public administrations

## I.1. Mauritius

### I.3.1. Introduction

Quarterly and annual National Accounts (NA) aggregates as well as the more detailed Institutional Sector Accounts (ISA) for General Government (GG) have always been compiled using administrative data from the Treasury department of the Ministry of Finance and Economic Development (MOFED) and from units/organizations forming part of the different sub sectors of GG.

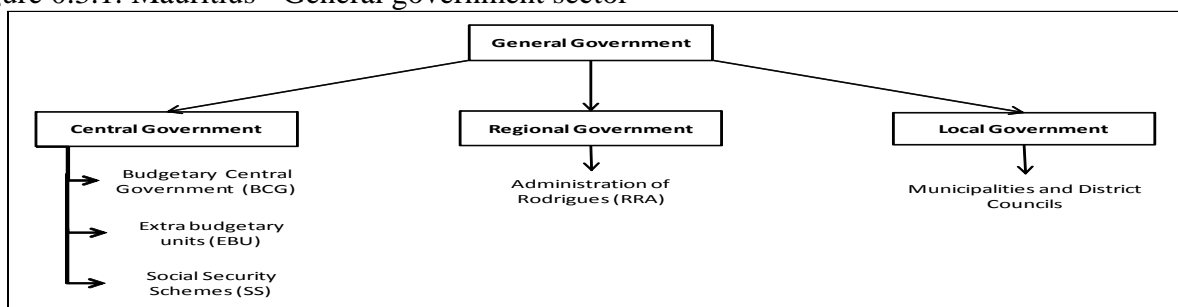
Annual national accounts are compiled on a calendar year basis. Prior to financial year 2008/09, quarterly data for Budgetary Central Government (comprising ministries and their departments and making up to around 70% of output GG) were obtained from the Treasury department of MOFED upon request and estimates were worked out for other levels of GG based on trends, to obtain quarterly and provisional annual production account for the general government sector.

Final annual figures and the ISA were sourced from details of annual reports which covered the period July to June of the following year and hence required a lot of processing in Excel to arrive at calendar year figures. However, with the shifting of government's accounting year to calendar year as from 2010, compilation of annual NA has been greatly eased. Furthermore, as from budget year 2008/09, Government decided to move to Programme Based Budgeting which therefore required a complete review of the Chart of Accounts (CoA) of the Treasury. This opportunity was seized to align classifications of fiscal transactions in the CoA with those of the Government Finance Statistics Manual 2001 (GFSM 2001) of the IMF. Hence, data for Budgetary Central Government for the compilation of Government Finance Statistics and National Accounts according to the 1993 SNA are available in summarized form, requiring less statistical re-processing.

### I.3.2. Coverage of general government

The General Government Sector is composed of the Budgetary Central Government (BCG), the Extra-Budgetary Units (EBUs), Social Security Schemes, Local Government (LG) and Rodrigues Regional Assembly (RRA) as depicted in the figure below :

Figure 0.3.1: Mauritius - General government sector



Central Government covers all units that are agencies of the country's central authority. It consists of Budgetary Central Government, Extra Budgetary Units and Social Security Schemes.

Budgetary Central Government (BCG) includes all ministries and departments.

Extra Budgetary Units (EBUs) are agencies responsible for the performance of specialized governmental functions in such fields as health, education, social welfare, construction and so on, under the authority of BCG. They are fully financed by BCG.

Social Security Schemes (SS) are schemes imposed, controlled or financed by the public authorities for the purpose of providing social security benefits for the community. The National Pensions Scheme and the Civil Service Family Protection Scheme are included here.

Regional Government (RG) consists of the administration of the island of Rodrigues which is part of the Republic of Mauritius.

Local Government (LG) consists of municipalities and district councils exercising an independent competence as government units.

### **I.3.3. Sources of data**

#### ***Budgetary Central Government (BCG)***

The Treasury Department of the Ministry of Finance and Economic Development is responsible for compiling and publishing Government Accounts for Budgetary Central Government (BCG) based on a centralized computerized Treasury Accounting System (TAS) where all financial transactions of ministries and their departments are recorded. The finance sections of all ministries and their departments are linked to the TAS. A brief description and the function of TAS are given in Box 0.1.

Data needed for compiling Government Finance Statistics and National Accounts for BCG are obtained from two different reports (known as TRY2 and TRY6) downloaded from the TAS. TRY2 provides detailed expenditure classified by budget programme while TRY 6 gives detailed transactions on revenue, expenditure and financing.

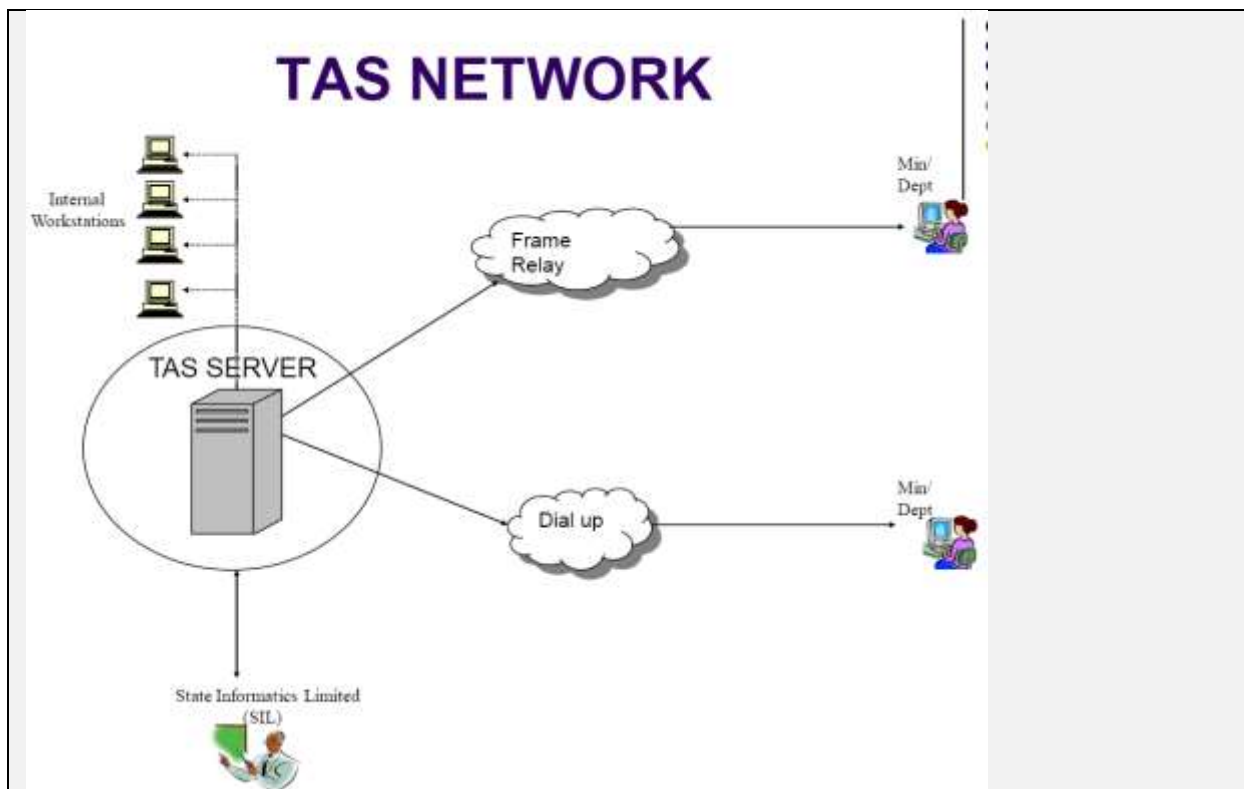
The TAS is a web based window which is protected with a username and password to avoid unauthorized access. Permission for access to the TAS is granted by the department of the Treasury. SM has access to the TAS.

The TAS allows the user to download reports in Microsoft Excel format. It is a database providing monthly budgeted and actual figures of BCG revenue, expenditure and financing items. The TAS is dynamic and is updated in real time. Data from TRY2 and TRY6 are available two months after the reference month or year. Quarterly data can be obtained by summing figures for the corresponding months.

#### **Box 0.1: Mauritius - Treasury Accounting System (TAS)**

The Treasury Department of Mauritius uses a system known as the Treasury Accounting system for the processing and recording of the financial transactions of Government and for the preparation of annual financial statements and other financial reports. The TAS comprises a Chart of Accounts (COA), which defines the format in which financial data is captured and the reports that can be generated. The TAS is (i) an off the shelf accounting package; (ii) an integrated government financial management information system to which all Ministries/Departments and the Treasury Departments are linked; (iii) linked via telephone lines and frame relay; and (iv) is a closed network system where access is given to authorized users only.





The COA is GFS compliant and all transaction codes are based on the GFS manual 2001 (GFSM 2001). The COA includes the following classification codes:

#### **Programme classification**

Programme/Sub-programme classification provides the basis for recording transactions associated with a specific programme and sub-programme delivered under an organizational unit.

#### **Economic classification**

Economic classification provides the basis for recording specific activity by the kind of transactions by which the Government performs its functions and the impact outside the Government in the market for goods and services, and in the distribution of income. The item classification is consistent with definitions in the analytical framework of the Government Finance Statistics (GFS) Manual.

#### **Functional classification**

The COA also provides for the functional classification of expense based on the United Nations Classification of Functions of Government (COFOG). COFOG is a detailed classification of the functions, or socio-economic objectives, that Ministries/Departments aim to achieve through various kinds of outlays.

A functional classification organizes government activities according to their purpose (agriculture, defence, education, intergovernmental transfers, etc.) and is independent of the government's organizational structure. This classification provides for the analysis of the allocation of resources among sectors and is important for monitoring macro budget policy objectives.

The system provides for an automatic allocation of sub-programmes to sub-functions of government as per the COFOG standard. For this purpose, the oracle tool called the Financial Statement Generator (FSG) is used. Sub-programmes are mapped to their corresponding sub-functions, thus allowing for each transaction to be captured under their appropriate function code. Accordingly, users would not need to allocate, at input stage, each and every transaction to respective functional codes.

***Extra Budgetary Units (EBUs), Social Security Schemes (SS), Regional Government (RG) and Local Government (LG)***

Data for Extra Budgetary Units and Local Government are not centralized and are available only in the annual reports of the individual organizations which are published 6-8 months after the reference accounting period. Printed copies of these reports are available upon formal request.

Data for Social Security Schemes are available in excel format upon request.

Data for Regional Government (Island of Rodrigues) are collected from the administrative department of the island in the form of excel tables similar to TRY2 and TRY6.

**I.3.4. Procedures for compiling Government Finance Statistics (GFS)**

***Budgetary Central Government***

Details on Budgetary Central Government Revenue, Expense, Acquisition of Nonfinancial assets, Acquisition of Financial Assets and Incurrence of Liabilities are extracted from TRY6. All these items are coded using an 8-digits economic classification code in the TAS. This coding structure is based on the recommended classifications in the Government Finance Statistics Manual 2001 (GFSM 2001) of the IMF. In TRY2 each expenditure item is displayed with its programme code and the economic classification code to which it belongs. Based on the programme and classification codes, detailed tables on Revenue, Expense, and Expenditure by function, and transactions in assets and liabilities for the Budgetary Central Government are compiled directly from TRY 2 and TRY 6.

***Extra Budgetary Units (EBUs), Social Security Schemes (SS), Regional Government (RG) and Local Government (LG)***

The data supplied for Regional Government are similar to those of TRY 2 and TRY 6. Compilation of GFS data for Regional Government is therefore straightforward as for Budgetary Central Government.

Extra Budgetary Units and Social Security Schemes use the International Public Sector Accounting Standards (IPSAS) when compiling their accounts. The final accounts of Local Government are based on Generally Accepted Accounting Principles (GAAP). Hence, final detailed transactions in the annual accounts have to be re-coded for GFS and NA purposes. The coded items are then input in an excel worksheet for reclassifications and tabulation.

***Consolidation***

Once GFS data for the different levels of General Government are ready, they are consolidated. For GFS purposes, transactions between the sub levels of general government have to be eliminated.

**I.3.5. Translating item-wise revenue and expenditure compiled for GFS into national accounts**

***Inputs from GFS and other separately calculated variables***

Compilation of SNA accounts is to a very large extent based on data already compiled for GFS purposes, as the GFSM 2001 is in line with SNA 93 with a few exceptions. Hence, most of the

items required for the General Government sector can be obtained from the GFS tables already compiled at General Government level. Please see Table 1.

However, there are items like Financial Intermediation Services Indirectly Measured (FISIM) and Gross Fixed Capital Formation (GFCF) that are not available in the GFS system and need to be computed separately. The Consumption of Fixed Capital (CFC) is another item which is not yet compiled in GFS because of lack of information from administrative records of Government. The methodologies for computing FISIM, GFCF and CFC for NA purposes are shown in Box 0.2.

Most items in the SNA accounts can be directly bridged from corresponding item in the GFS tables. Examples are Compensation of Employees, Subsidies, Current transfers and Taxes on Products. For Intermediate Consumption, purchase and sales of goods and services and transfer in kinds from GFS are used and adjustments made for FISIM.

It is to be noted that transfers from one level of government to another have been eliminated in GFS due to consolidation and therefore are not available in the ISA for general government. Some more work is needed to be able to show these intra government transactions as required by SNA.

#### **Box 0.2: Mauritius - Methodologies for calculating FISIM, GFCF and CFC**

##### **Method for calculation of government FISIM**

FISIM for government, which is an intermediate cost, is calculated for the General Government level. Data on stock of deposits and loans and the prevailing rate of interest as published in the monthly statistical bulletin of Bank of Mauritius are used to calculate the actual interest paid. To estimate the SNA interest, the reference rate used is the bank rate as determined by the Monetary Policy Committee of the Bank of Mauritius every quarter.

##### **Compilation of Gross Fixed Capital Formation (GFCF)**

Different sources are used for the valuation of capital formation, based essentially on the commodity approach. Information on investment is collected and compiled on a calendar year basis. These data are classified by type of capital goods namely residential buildings, non-residential buildings, other construction works, transport equipment and other machinery and equipment and by industrial activity.

##### Building and construction

Investment on residential buildings is obtained from the National Housing Development Company (NHDC), the Mauritius Housing Corporation. However, investment by government in residential buildings is considered mostly as private because beneficiaries become owners of the housing units.

Costs of large construction projects are estimated from data obtained from various administrative sources as well as the budget and the Public Sector Investment Programme.

##### Other construction works

All other construction works not included above are grouped under "Other construction works". These include outlays on road constructions, dams, reservoirs, pipe laying, electricity distribution networks, land improvement and reclamation and all other civil engineering works. Information on such construction works is obtained from administrative sources as well as the budget and the Public Sector Investment Programme.

Estimates in building and construction works are updated following meeting with concerned bodies and are cross checked with expenditure incurred by government.

##### Transport Equipment

For road transport equipment, the main source is the National Transport Authority, where all purchase of vehicles, new or second hand, have to be registered together with the name of the buyer. For aircraft and vessels, external trade statistics are used.

#### Other machinery and equipment

External Trade Statistics are the main source of data as most of the machines are imported. A list of imported machinery and equipment, identified as capital goods, is prepared. These imported goods are at c.i.f. value and are brought to purchasers' prices by the addition of taxes on imports, landing cost, transportation cost, wholesale and retail margins and in some cases, installation cost. They are then classified by industrial use. These are however cross checked against capital expenditure data from the government reports.

#### Adjustments – accrual and cash flows

Given that GFCF is estimated on an accrual basis and expenditure incurred are cash flows adjustments are made to exclude any advance payment made and retention money on projects. These advance payments are included wholly in the year when acquisitions of the goods are made. Retention money, if any, is included in the year of completion of the project.

#### **Compilation of Consumption of Fixed Capital**

Consumption of Fixed Capital (CFC) is a cost of production. It may be defined in general terms as the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage.

From the Gross Domestic Fixed Capital Formation (GDFCF) of government every year, the consumption of fixed capital is compiled for each industrial activity in which Government is involved.

The Perpetual Inventory Method (PIM) is used to produce estimates of the value of the stock of capital assets used in the production process. Capital assets refer to tangible reproducible fixed assets which include building (excluding land), infrastructural work, machinery and equipment. The PIM requires current price estimates of GDFCF and price indices over many years, and assumptions about the expected lifetime of the respective assets as shown at 4.3.1 below.

The PIM produces annual estimates of gross and net capital stock at constant and current prices by accumulating past flows of expenditure on GDFCF.

Gross capital stock is the accumulation of past investment flows less retirements before deduction of any allowances for consumption of fixed capital.

Net capital stock is gross capital stock less accumulated capital consumption on items forming the gross capital stock.

Annual estimates of consumption of fixed capital are derived using the Straight Line Method. The straight line depreciation function assumes a linear decline in efficiency, that is, it exhibits the same loss every year until the service life ends when efficiency declines to zero.

#### Assumptions used for mean asset life by type:

<b>Type of asset</b>	<b>Mean asset life (age)</b>
<b>A .Construction work</b>	
Residential building	30 years
Non-residential building	40 years
Other construction work	60 years
<b>B. Transport equipment according to type / sector</b>	
Motor car	8 years
<b>Other transport equipment</b>	
Air / Sea Transport	20 years
<b>C. Other machinery and equipment by sector</b>	
Agriculture	15 years

Manufacturing	8 years
Financial services	5 years
Public utilities	20 years
Other sectors	12 years

### ***Translating Government Finance Statistics to SNA accounts – Mauritius Example***

The attached example shows how tables compiled for Government Finance Statistics (GFS) are translated to SNA's Institutional Sector Accounts. Table 2 shows how the items in GFS are bridged to the items in SNA and how the production account, generation of income account, allocation of primary income account, secondary distribution account, use of income account and the capital account are produced for the General Government sector. Table 2a shows how items that are not available from GFS are computed for the purpose of National Accounts. Table 3 gives the sequence of accounts compiled from these data.

### ***National Accounts by Industry and Function***

Production Account and Generation of Income Account for General Government are also compiled by industry group, based on the National Standard Industrial Classification (NSIC), which is an adapted version of the UN International Standard Industrial Classification (ISIC). General Government Current Expenditure is also compiled by function based on the Classification of Functions of Government (COFOG). The programme codes in the TAS have been designed to allow for easy mapping of expenditure items to NSIC and COFOG using Microsoft Excel functions and pivot tables. An extract of the mapping table is shown below.

## **I.3.6. Conclusion**

Compilation of GFS and NA at BCG level has been immensely facilitated with coming into operation of the new CoA, which has taken on board statistical requirements.

For the remaining units of the General Government, numbering around 120, data are sourced from their final accounts. The final accounts of these units are scrutinized and coded according to required statistical classifications and then input in Excel for further processing. The problems with the final accounts are lack of details for statistical purposes and unavailability in soft copies.

Action has been initiated to incorporate GFS classification codes in the accounting system of the 12 municipalities and district councils forming part of local government. However, there have not been any results up to now.

### I.3.7. Illustrations

Figure 0.3.2: Mauritius – Programmes and sub-programmes by function and NSIC

**Table showing Programmes and sub-programmes by Function and NSIC (Extracted from NSIC/COFOG mapping table)**

Prg and Sub-prg	Programme name	COFOG Code	NSIC Recurrent	NSIC Capital
1	Programme 001: Presidency Affairs	70111	<b>O84110</b>	O84110
11	Programme 011: Vice-Presidency Affairs	70111	<b>O84110</b>	O84110
21	Programme 021: Administration and Delivery of Justice	70330	<b>O84234</b>	O84234
31	Programme 031: Parliamentary Affairs	70111	<b>O84110</b>	O84110
51	Programme 051: Public and Disciplined Forces Service Affairs	70131	<b>O84110</b>	O84110
61	Programme 061: Ombudsman's Services	70330	<b>O84110</b>	O84110
71	Programme 071: Supervision of Electoral Activities and Review of Electoral Boundaries	70160	<b>O84110</b>	O84110
81	Programme 081: Electoral Services	70160	<b>O84110</b>	O84110
91	Programme 091: Industrial Dispute Resolutions	70330	<b>O84234</b>	O84234
101	Programme 101: Local Government Human Resource Affairs	70131	<b>O84110</b>	O84110
121	Programme 121: Supervision of Broadcasting	70830	<b>O84110</b>	O84110
131	Programme 131: Combating Corruption	70111	<b>O84110</b>	O84110
141	Programme 141: Protection and Promotion of Human Rights	70111	<b>O84110</b>	O84110
151	Programme 151: Protection and Promotion of Children's Rights and Interests	70330	<b>O84110</b>	O84110
171	Programme 171: Determination of Appeals by Public Officers	70330	<b>O84110</b>	O84110
211	Programme 211: Government Information service and Provision of International News	70830	<b>O84110</b>	O84110
221	Programme 221: Provision for Forensic Services	70310	<b>O84231</b>	M71200
231	Programme 231: Public Sector Compensation and HRM Policy and Strategy	70131	<b>O84110</b>	O84110
241	Programme 241: Civil Status Affairs	70160	<b>O84110</b>	O84110
251	Programme 251: Financial Support to Religious Organisations	70840	<b>O84120</b>	O84120
261	Programme 261: Security Policy and Management	70310	<b>O84231</b>	O84231
271	Programme 271: Government Printing Services	70133	<b>C18111</b>	C18111
281	Programme 281: Meteorological Services	70411	<b>O84110</b>	O84110
291	Programme 291: Management of Prisons	70340	<b>O84233</b>	O84233
292	Programme 292: Custody and Rehabilitation of Detainees	70340	<b>O84233</b>	O84233
301	Programme 301: Civil service Policy and management	70131	<b>O84110</b>	O84110
302	Programme 302: Administrative Reforms in the Civil service	70131	<b>O84110</b>	O84110
303	Programme 303: Human Resource Development and Capacity Building	70131	<b>O84110</b>	O84110
311	Programme 311: Rodrigues Development	70111	<b>O84110</b>	O84110
321	Programme 321: Policy and Strategy Development for Public Infrastructure, Land Transport and Maritime Services	70133	<b>O84110</b>	O84110
325	Programme 325: Maritime Safety and Development	70452	<b>O84130</b>	O84130
341	Programme 341: Policy and Management for Tourism and Leisure	70473	<b>O84130</b>	O84130

Figure 0.3.3: Mauritius – Integrated economic account for the general government, methodology

**I. Production account**

USES		Data Source	RESOURCES		Data Source
P.2	Intermediate consumption	National Accounts workings :- Purchase of goods and services + transfers in kind (free secondary education) + FISIM - sales of goods and services	P.1	Output (P2 + B1)	Output of GG = Consumption (Final consumption at P3)
			P.11	Market output	
			P.12	Output for own final use	
			P.13	Other non-market output	
B.1	Value added (D1 + B2)	Compensation of employees + Operating surplus			

**II: Distribution and use of income accounts**

**II.1: Primary distribution of income account**

**II.1.1: Generation of income account**

USES		Data Source	RESOURCES	Data Source
D.1	Compensation of employees	National Accounts workings: - Wages and salaries + employers' actual social contributions (if any) + imputed employers' contribution to retirement pension schemes. Should also include imputed employers' contribution to CSFPS but not done at present	B.1	Value added
D.11	Wages and salaries			
D.12	Employers' social contributions	General govt as employer		
D.12.1	Employers' actual social contributions	Nil at present		
D.12.2	Employers' imputed social contributions	Employers' cont. based on post PRB 2008 pensions cont. (twice amount paid by employees) Same amount at D612 (Resources). Imputation for contribution to CSFPS not yet done.		
D.2	Taxes on production and imports			
D.21	Taxes on products			
D.29	Other taxes on production			
D.3	Subsidies			
D.31	Subsidies on products			
D.39	Other subsidies on production			
B.2	Operating surplus	Use figure estimated for consumption of fixed capital		

### II.1.2: Allocation of primary income account

Uses		Data source	GFS code		Resources		Data source	GFS code
D.4	Property income				B.2	Operating surplus		
D.41	Interest	Public debt interest from budgetary central govt accounts less amount paid to other subsectors of general govt (presently only to NPF - refer to NPF accounts for required figures). To add interest paid by other levels of govt to units outside general govt, e.g to banks (same as figure in GFS for GG)	24		D.2	Taxes on production and imports	Refer to detailed table on net indirect taxes for National Accounts (list to be updated every year- same items as in GFS).To check items in 116 of GFS table - whether in list of National accounts, if not - 116 to be included under D59	114 + 115 (excluding 40% of motor vehicle taxes paid by households in NA figures).
D.42	Distributed income of corporations				D.21	Taxes on products		
D.43	Reinvested earnings on direct foreign investment				D.29	Other taxes on production		
D.44	Property income attributed to insurance policyholders				D.3	Subsidies	Refer to detailed table on net indirect taxes for National Accounts (list to be updated every year- same items as in GFS after ensuring correct classification in GFS). Subsidies figures to be entered with a negative sign	25 less capital transfers (to be estimated – infn. from concerned Min/Dept)
D.45	Rent (for land, if any )				D.31	Subsidies on products		
					D.39	Other subsidies on production		
					D.4	Property income		
					D.41	Interest	Same as GFS figures for GG	1411
					D.42	Distributed income of corporations	Same as GFS figures for GG	1412 +1413
					D.43	Reinvested earnings on direct foreign investment		
					D.44	Property income attributed to insurance policyholders		
					D.45	Rent (land)	Same as GFS figures for GG	1415
B.5	Balance of primary incomes	B2+D2+D3+D4 (Resources) -D4 (Uses)						



## II.2 Secondary distribution of income account

Uses		Data source	GFS code		Resources		Data source	GFS code
					B.5	Balance of primary incomes	B5 from previous section	
D.5	Current taxes on income, wealth, etc.				D.5	Current taxes on income, wealth, etc.		
D.59	Other current taxes				D.51	Taxes on income		111
					D.59	Other current taxes	From GFS workings - General govt ( including tax collected by local govt)	All items under 11 except 111 already classified under D51 and indirect taxes classified under D2
D.62	Social benefits other than social transfers in kind				D.61	Social contributions	Should be equal to 12 in GFS except for CSFPS not in NA estimates (Resources and Uses)	12 less estimates for employer's contribution to CSFPS in GFS
D.621	Social security benefits in cash (+ in kind)	GFS - 271 in GG	271 (code as per GFM01 manual)		D.6111	Employers' actual social contributions	Private sector employers' contributions to NPF.	Part of 121 (sub category ...)
D.623	Unfunded employee social benefits	Retirement pensions to former government employees (general govt)	273		D.6112	Employees' social contributions (actual)	Main item: Private sector employees' contributions to NPF. Also included government employees' contributions to CSFPS + Contributions to Unfunded Retirement Pension Scheme - as from PRB 2008. Also included any other contributions by government officers ( including legislative assembly members) to retirement schemes - Should be same as GFS	(Total amount received by general government from employees : private + government )
D.624	Social assistance benefits in cash	Same as GFS - 272 in GG	272		D.612	Imputed social contributions (employer)	Employer's (government) contributions to Unfunded Retirement Pension Scheme (RPS) - Twice amount of contributions paid by	

Uses		Data source	GFS code		Resources		Data source	GFS code
							employees used as an estimate. No estimate for CSFPS	
D.7	Other current transfers				D.7	Other current transfers		
D.71	Net non-life insurance premiums				D.71	Non-life insurance claims		
					D.73	Current transfers within general government	No entries for the time being. Need to be estimated from GFS workings	
D.73	Current transfers within general government	Same as D73 - Resources			D.74	Current international cooperation	Current grants from foreign govts and international institutions	1321
D.74	Current international cooperation	Grants and other payments to international organisations	2621		D.75	Miscellaneous current transfers		
D.75	Miscellaneous current transfers				D.751	Compulsory fees, fines and penalties	GFS workings	143
D.759	Other transfers	Other current expenses from GFS workings not included elsewhere. Note: exclude transfers in kind (free secondary education) already entered at P2	2821 less Free education		D.759	Other transfers	Other items of current revenue not elsewhere included from GFS workings (general govt). Note: sales of goods and services (142) already included as a negative item of intermediate consumption	145
B.6	Disposable income	By difference :Resources (B5 + D5 + D61 + D7) less Uses (D5 + D61 +D62 + D7)						

#### II.4.1: Use of disposable income account

Uses		Data source		Resources		Data source
P.3	Final consumption expenditure	Total value = gross output (enter this figure at P1)		B.6	Disposable income	
P.31	Individual consumption expenditure	Break down P31 and P32 from National Accounts workings for ESI				
P.32	Collective consumption expenditure					
D.8	Adjustment for the change in net equity of households on pension funds	Operation surplus of NPF( adjustment required as this surplus is considered as savings of Households)				
B.8	Saving (B6 - P3 -D8)					

#### III.1 Capital account

	Changes in assets	Data source	GFS Code		Changes in liabilities and net worth	Data source	GFS Code
P.51	Gross fixed capital formation	General government estimates		B.8	Saving		
K.1	Less consumption of fixed capital	Not included because figures not available for other sectors		D.9	Capital transfers, receivable		
K.2	Acquisitions less disposal of non-produced non-financial assets	purchase of land (if any)		D.91	Capital taxes		
P.52	Changes in inventories			D.92	Investment grants	GFS workings (Capital grants received)	1312 + 1322
				D.99	Other capital transfers	other items under capital receipts (if any)	
				D.9	Capital transfers, payable		
				D.91	Capital taxes		
				D.92	Investment grants	GFS workings (Capital grants paid)	261(capital only) +2622
				D.99	Other capital transfers	GFS workings (Other capital expense)	2822
B.9	Net lending (+) / Net borrowing (-)	B10.1 (Net worth ) - (P51 - K1) - K2 - P52		B.10.1	Changes in net worth due to saving and capital transfers	B8 + D9 receivable - D9 payable	

Figure 0.3.4: Mauritius – Compilation of the institutional sector accounts of the SNA for the general government sector

A. CGG <sup>44</sup> GFS code	Revenue / Expense	Methodology	National Accounts codes, description of items and accounts and remarks				
	Source of data		Code	Description		Data	Remarks
1	REVENUE	11+12+13+14				75122	
11	Taxes	11				60386	
111	Taxes on income, profits, and capital gains (a1+a2+a3)	sum of all items with code starting with 111	D51	Taxes on income	Resources	13620	
112	Taxes on payroll and workforce	112	D59	Other current taxes	Resources	187	
113	Taxes on property (b1+b2+b3)	sum of all items with code starting with 113	D59	Other current taxes	Resources	4350	
114	Taxes on goods and services (c1+c2+c3+c4+c5)	sum of all items with code starting with 114	D2	Taxes on Production and Imports	Resources	39426	60% of item "Motor vehicles taxes - GFS code 11451" considered as taxes on production and imports. The remaining 40% is considered as payment by households classified under D59 (Resources)
1145	Taxes on use of goods, permission to use goods (c4)	sum of all items with code starting with 1145				1959	
11451	Motor vehicles taxes	11450001				1155	
11452	Other	11450002+11450003+11450004+11450005+11450006+11450007+11450099				804	
115	Customs and other import duties	11510001	D2	Taxes on Production and Imports	Resources	1560	
116	Other taxes	sum of all items with code starting with 116	D2	Taxes on Production and Imports	Resources	1243	
12	Social contributions	12				5423	
121	Social security contributions	sum of all items with code starting with 121	D6112	Employee's social contribution	Resources	3096	2342 of 3096 represents amount contributed by private sector of which: 1562 classified under D6111 ( Employer's actual social contributions for private sector) 781 classified under D6112 (Employee's social contributions)
122	Other social contributions	1221+1223				2327	
1221	Employee contributions	Mainly from Extra Budgetary Units	D6112	Employee's social contribution	Resources	278	
1223	Imputed contributions	Imputed contributions of government (as employer) to	D612	Imputed Social Contribution	Resources	2049	

<sup>44</sup>Consolidated General Government (CGG). Consolidation is the elimination of transactions and debtor creditor relationships that occur among the units to be consolidated. It is a method of presenting statistics for a set of units as if they constitute a single unit. The sum of the individual units may not therefore add up to the consolidated total. This method is used when presenting data for the Government Finance Statistics (GFS). Consolidated General Government = Consolidated Central Government + Regional Government + Local Government

A. CGG <sup>44</sup> GFS code	Revenue / Expense	Methodology	National Accounts codes, description of items and accounts and remarks				
	Source of data		Code	Description		Data	Remarks
		unfunded retirement pension schemes					
13	Grants	13				2345	
131	From foreign governments	1311+1312				222	
1311	Current	sum of all items with code starting with 1311	D74	Current international cooperation	Resources	4	
1312	Capital	sum of all items with code starting with 1312	D92	Investment grants receivable	Liabilities	219	
132	From international organizations (d1+d2)	1321+1322				2122	
1321	Current (d1)	sum of all items with code starting with 1321	D74	Current international cooperation	Resources	48	
1322	Capital (d2)	sum of all items with code starting with 1322	D92	Investment grants receivable	Liabilities	2074	
133	From other general government units	1331+1332				0	
1331	Current	sum of all items with code starting with 1331	D73	Current transfers within government	Resources	0	Intra transfers within general government eliminated on consolidation of GFS (not included in present ISA series)
1332	Capital	sum of all items with code starting with 1332	D92	Investment grants receivable	Liabilities	0	
14	Other revenue	14				6969	
141	Property income	sum all GFS codes starting with 141				4328	
1411	Interest	sum of all items with code starting with 1411	D41	Interest	Resources	1036	
1412	Dividends	sum of all items with code starting with 1412	D42	Distributed income of corporations	Resources	952	
1413	Withdrawals form income of quasi-corporations	sum of all items with code starting with 1413	D42	Distributed income of corporations	Resources	1127	
1415	Rent	sum of all items with code starting with 1415	D45	Rent	Resources	1213	
142	Sales of goods and services	sum of all GFS codes starting with 142	P2	Intermediate consumption	Uses	1680	Negative Item under P2
143	Fines, penalties, and forfeits	sum of all GFS codes starting with 143	D751	Compulsory fees, fines and penalties	Resources	306	
144	Voluntary transfers other than grants	1441+1442				48	

A. CGG <sup>44</sup> GFS code	Revenue / Expense	Methodology	National Accounts codes, description of items and accounts and remarks				
	Source of data		Code	Description		Data	Remarks
1441	Current	sum of all items with code starting with 1441	D759	Other current transfers	Resources	48	
1442	Capital	sum of all items with code starting with 1442				0	
145	Miscellaneous and unidentified revenue	sum of all GFS codes starting with 145	D759	Other current transfers	Resources	607	

GFS code	Revenue / Expense	Methodology	National Accounts codes, description of items and accounts and remarks				
	Source of data		Code	Description		Data	Remarks
<b>2</b>	<b>EXPENSE</b>	<b>21+22+24+25+26+27+28</b>				<b>66157</b>	
<b>21</b>	<b>Compensation of employees (a1+a2)</b>	<b>21</b>	<b>D1</b>	<b>Compensation of Employees</b>	<b>Uses</b>	<b>25572</b>	
211	Wages and salaries (a1)	sum of all GFS codes starting with 211	D11	Wages and salaries	Uses	22817	
212	Social contributions (a2)	Imputed government 's contribution as employer to Unfunded Retirement Pension Scheme based on employee's pension contribution (twice amount paid by employees) plus imputed employer's contributions to Civil Service Family Protection Scheme (CSFPS)	D12	Employers' social contributions	Uses	2755	
<b>22</b>	<b>Use of goods and services</b>	<b>sum of all GFS codes starting with 22</b>	<b>P2</b>	<b>Intermediate consumption</b>	<b>Uses</b>	<b>9388</b>	
<b>24</b>	<b>Interest (b1+b2+b3)</b>	<b>code 24</b>	<b>D41</b>	<b>Interest</b>	<b>Uses</b>	<b>6381</b>	<b>Interest is on accrual basis</b>
<b>25</b>	<b>Subsidies (c1+c2)</b>	<b>25</b>	<b>D31</b>	<b>Subsidies on products</b>	<b>Resources</b>	<b>1026</b>	
<b>26</b>	<b>Grants (d1+ d2+d3)</b>	<b>261 + 262 + 263</b>				<b>292</b>	
261	To foreign governments (d1)	2611+2612				5	
2611	Current	sum of all GFS codes starting with 2611	D74	Current International Corporation	Uses	5	
2612	Capital	sum of all GFS codes starting with 2612	D92	Investment Grants payable	Liabilities	0	
262	To international organizations (d2)	2621 + 2622				287	

GFS code	Revenue / Expense	Methodology	National Accounts codes, description of items and accounts and remarks				
	Source of data		Code	Description		Data	Remarks
2621	Current	sum of all GFS codes starting with 2621	D74	Current International Corporation	Uses	287	
2622	Capital	sum of all GFS codes starting with 2622	D92	Investment Grants payable	Liabilities	0	
263	To other general government units (d3)	2631 + 2632				0	
2631	Current	All GFS codes starting with 26313 excluding 26313007 plus 26311001 + all GFS codes starting with 26312 + all GFS codes starting with 272101	D73	Current transfer within general govt	Uses	0	Intra transfers within general government eliminated on consolidation of GFS (not included in present ISA series)
2632	Capital	sum all GFS codes starting with 2632	D99	Other capital transfers payable	Liabilities	0	
<b>27</b>	<b>Social benefits (e1+e2+e3)</b>	<b>271 + 272 + 273</b>				<b>17374</b>	
271	Social security benefits (e1)	sum all GFS codes starting with 271	D621	Social security benefits in cash	Uses	11084	
272	Social assistance benefits (e2)	sum all GFS codes starting with 2721 <b>but excluding 27210101 to 27210106</b> (transferred to Grants)	D624	Social assistance benefits in cash	Uses	1034	
273	Employer social benefits (e3)	<b>sum all GFS codes starting with 273</b>	D623	Unfunded employee social benefits	Uses	5256	
<b>28</b>	<b>Other expense (f1+f2+f3)</b>	<b>28</b>				<b>6125</b>	
282	Miscellaneous other expense (f1)	282				6125	
2821	Current (f2)	sum all GFS codes starting with 2821	D759 (2821 less transfers in kinds)	Other transfers	Uses	5113	Transfers in kinds comprise mainly free secondary education treated as a service purchased by Government in National Accounts (therefore included in IC at P2). <b>Refer to Table 1a - Other Computed Items for National Accounts.</b>
2822	Capital (f3)	sum all GFS codes starting with 2822	D99	Other capital transfers payable	Liabilities	1011	

GFS code	Revenue / Expense	Methodology	National Accounts codes, description of items and accounts and remarks				
	Source of data		Code	Description		Data	Remarks
<b>31</b>	<b>Net Acquisition of Non-Financial Assets</b>						GFS figures for "Net Acquisition of Non-Financial Assets not used for National Accounts. Estimates for Gross Fixed Capital Formation (GFCF) are used instead. Refer to table 1a
<b>314</b>	<b>Non-produced Assets</b>	<b>sum all GFS codes starting with 314</b>	K2	Acquisitions less disposal of non-produced non-financial assets	Uses	440	

#### B. Other computed items for national accounts

Transfers in Kind	Transfer in kind comprise mainly free secondary education treated as service purchased by government from the private sector (therefore included in IC)	P2	Intermediate consumption (IC)	Uses	3720
FISIM	Methodology explained in write up	P2	Intermediate consumption (IC)	Uses	1686
Gross Fixed Capital Formation (GFCF)	Methodology explained in write up	P51	Gross fixed capital formation	Uses	12130
Consumption of Fixed Capital (CFC)	Methodology explained in write up	K1	Consumption of fixed capital	Assets	5018



Figure 0.3.5: Mauritius – Sequence of accounts compiled

#### Production Account

Resource	
Output	43705
Market output	43705
Use	
Intermediate consumption	13114
<b>Gross value added</b>	<b>30590</b>

#### Generation of Income Account

Resource	
<b>Gross value added</b>	<b>30590</b>
Use	
Compensation to employees	25572
Other (Net) taxes on production	0
<b>Operating surplus</b>	<b>5018</b>

#### Allocation of Primary Income Account

Resource	
<b>Operating surplus</b>	<b>5018</b>
Taxes on goods and services	41767
Property income	4328
<b>Total resources</b>	<b>51113</b>
Use	
Property income	6381
Subsidies on products	1026
<b>Balance of primary income</b>	<b>43707</b>

#### Secondary Distribution Of Income Account

Resource	
<b>Balance of primary income</b>	<b>43707</b>
Current transfers received	4999
Taxes on net income and profits	13620
Social Contributions	4392
<i>Employer's actual social contributions</i>	<i>1562</i>
<i>Employees' actual social contributions</i>	<i>781</i>
<i>Imputed social contributions</i>	<i>2049</i>
Other Current Transfers	1013
Total resources	67730
Use	
Taxes on income and wealth	0
Social benefits other than social transfers	17374
Current transfers given	1685
<b>Disposable income</b>	<b>48671</b>

#### Use of Income Account

Resource	
Disposable income	48671
Use	
Consumption expenditure	43705
<b>Saving</b>	<b>4967</b>

#### Capital Account

Change in liabilities and net worth	
<b>Saving</b>	<b>4967</b>
Capital transfers receivable	2293
Capital transfers, payable	-1011
Change in assets	
Gross fixed capital formation	12130
Less consumption of fixed capital	5018
Acquisitions less disposal of non-produced non-financial assets	440
<b>Net lending/borrowing</b>	<b>-1303</b>

## **I.2. Mozambique**

### **I.4.1. Introduction**

Mozambique compiles national accounts according to the United Nations procedures since 1991. Before, for historical reasons, it was not possible to comply with the SNA requirements. Since then, with the assistance of the UN experts in national accounts, we follow the recommendations of SNA to the extent available source data permits. The National Institute of Statistics (NSI) is by law, the producer of official statistics. It conducts census and surveys. The periodicity depends on the nature of the operation and it can be monthly, yearly or every ten years. Besides the census and surveys, we do use administrative data for our compilations. Every report produced by the ministries (annual fishing report; reports on cotton production; annual reports on mineral resources, etc.), has to be sent to the National Institute of Statistics and it incorporates the data in the national accounts. Specific studies that are of the importance for statistics are also utilized in the NSI.

### **I.4.2. Government accounts**

In Mozambique, government sector accounts are composed based on the (i) central government sector accounts, S131; (ii) local administration accounts, S132; and (iii) social security funds accounts, S133.

#### ***Central government sector (S131)***

The main data sources for the compilation of government accounts are the Annual State Budget Report and the General State Account. Both reports belong to the Ministry of Finance.

The Budget Report is an official document that describes the execution of the state budget and the finance activity result for the year in reference. It constitutes the guarantee for the definitive information regarding what was done for certain period of time by the state. It is composed of four parts:

- 1) The first part is a general analysis of different policies from the various areas of development of the country; it establishes parallels with the global context. It analyses data regarding management and budget equilibrium; the actual revenues compared to annual forecasts and revenues collected in the previous year; financing of the deficit by source and nature; operation expenditures; financial operations; etc.
- 2) The second part is composed of budget execution maps, subdivided into global maps; state revenue maps and maps for the financing deficit; summary maps for the operational expenditures; summary maps for the investment expenditures; and summary maps for financial operations.
- 3) The third part includes operational expenditures maps and investment expenditures maps by projects.
- 4) The last part contains informative annexes regarding the summary of revenues, expenditures, balances, collection of credit risks and the informative annex of state credit movements.

The Budget Execution Report shows what was done as well as the results of financial activities from January to December of each year. It might be subject to conjectural adjustments.

Both the State General Account and the Budget Execution Report are translated into national accounts language: we insert operations for the purposes of the calculations of S131 from the

production account up to the capital account. From the information coming from these two reports, where we previously incorporated the national accounts codes, we obtain the necessary elements to feed some internal work files by industries in order to calculate the production, intermediate consumption and wages and salaries. These files also give data regarding actual collective consumption (from the public administration, defence and compulsory security) and actual individual consumption (health and education).

### **Local government sector (S132)**

The data source for this sector is the Budget Execution Report of each municipality. Up to 2013, Mozambique had 43 municipalities and now we have 53. Each report contains detailed data on revenues and expenditures realized each year. They follow a standard pattern and can be seen in the follow figure, (modelo-12, *Fig.1*).

Figure 0.4.1: Mozambique – Budget report of municipalities

Code	Description	SNA Codification	Maputo	Nampula	Beira	Matola
	TOTAL DAS RECEITAS		60,4	1,99	16,4	18,2
1	RECEITAS CORRENTES		60,4	1,99	16,4	14,5
1.1	Receitas Fiscais		60,4	1,99	16,4	2,0
1.1.1	Impostos sobre o Rendimento		0,0	0,00	0,0	0,0
1.1.1.1	Imposto Autárquico de Comércio e Industria	D.51	0,0	0,00	0,0	0,0
1.1.1.2	Imposto sobre o Rendimento de Trabalho	D.51	0,0	0,00	0,0	0,0
1.1.2	Impostos sobre Bens e Serviços		54,1	477,49	15,7	1,1
1.1.2.1	Imposto Predial Autárquico	D.29	27,4	273,91	9,0	0,8
1.1.2.2	Imposto sobre Turismo	D.29				
1.1.2.3	Imposto sobre Veículos (75%)	D.29	26,7	203,58	6,7	0,3
1.1.3	Outros Impostos		6,3	0,00	0,7	0,0
1.1.3.1	Imposto Pessoal Autárquico	D.59	6,3	0,1	0,7	0,1

With this pattern it is possible to obtain total revenue data, disaggregated into (i) *current revenue* which corresponds to fiscal revenues (income taxes, goods and services taxes and other taxes), non-fiscal revenues (licenses, tax on services and others), trust funds, and current transfers of public institutions; and (ii) *capital revenues* from the alienation of municipality patrimony, other capital revenue (revenue coming from services that belong to the municipality), donations and lending.

Total expenditures are made up from (i) *current expenditures* from expenditures on personnel (wages and salaries), goods and services expenditures, current transfers to public administration, households and rest of the world, others current expenditures; and (ii) capital expenditures include outlays on constructions and machinery and equipment, capital transfers and other capital expenditures.

### **Compilation process**

After inserting all data coming from the municipality reports, we collect in one file all municipalities and group them according to transaction. The below table shows for the sector S132 every single transaction recorded and provided by the municipalities translated into national accounts.

Figure 0.4.2: Mozambique – Data from municipalities translated into national accounts

<b>S132</b>	<b>Local Administration</b>			
<b>Code</b>	<b>Description</b>	<b>N.A. Code</b>		<b>Data (10<sup>6</sup>Mtn)</b>
	<b>TOTAL INCOME</b>			
<b>1</b>	<b>CURRENT REVENUE</b>			
<b>1.1</b>	<b>Fiscal Revenue</b>			
<b>1.1.1</b>	<b>Revenue tax</b>			
<b>1.1.1.1</b>	Trade and industrial municipality tax	<b>D.51r</b>	<b>D.51</b>	0,2
<b>1.1.1.2</b>	Tax on job	<b>D.51r</b>	<b>D.51</b>	0,0
<b>1.1.2</b>	<b>Goods and services taxes</b>			
<b>1.1.2.1</b>	Property tax	<b>D.29r</b>	<b>D.29</b>	93,3
<b>1.1.2.2</b>	Taxes on tourism	<b>D.29r</b>	<b>D.29</b>	0,1
<b>1.1.2.3</b>	Taxes on vehicles (75%)	<b>D.29r</b>	<b>D.29</b>	56,4
<b>1.1.3</b>	<b>Other taxes</b>			
<b>1.1.3.1</b>	Personnel autarky tax	<b>D.59r</b>	<b>D.59</b>	37,8
<b>1.1.3.2</b>	Economic activity fee	<b>D.29r</b>	<b>D.29</b>	37,9
<b>1.1.3.4</b>	Additional on state tax	<b>D.29r</b>	<b>D.29</b>	0,0

After inserting all the correspondence into national accounts codes, we obtain the necessary elements that will feed the sector and industry files. The design of a sector account is according to the standards and recommended in the SNA. Using the supporting tool NADABAS (National Accounts Data Base System) the national accounts technicians work on industrial and institutional sector files. Any adjustment is done directly in the file.

### I.3. Niger

Niger has a long experience in compiling national accounts. Since the transfer of the Directorate of Statistics and National Accounts to the National Institute of Statistics (NIS) in 2004, important improvements have been made in the compilation of national accounts both in terms of quality and periodicity. Since then, the annual national accounts are published twice a year, first in April (quick accounts for year n-1) and then in November (final accounts for year n-2, forecasts for year n-1, and estimations for the on-going year). Each of these publications includes principal tables recommended by the United Nations. These publications are available at the website: [www.ins.ne](http://www.ins.ne). In addition, Niger is working on the compilation of quarterly accounts, which are yet to be published.

Niger uses the 1993 SNA with some adaptations for the local economic realities, but staying in the global framework recommended by AFRISTAT and ECOWAS. Supply data is provided by institutional sectors, while supply-use equilibriums are provided by principal products.

It should be noted that the Law Nb. 2004-011 regarding the organisation of economic activities obliges public and private organisations to forward their statistical and accounting data by 30 April of every n year for the exercise covering year n-1.

The present section summarises the methodologies used by Niger to compile national accounts for general government. General government accounts are usually produced according to the nature of the following available data sources:

- general budget of the state;
- State Finance Operations Tables (SFOT);
- national treasury;
- state investment budget;
- local governments' accounting documents;
- documents from the national social security fund;
- documents from the national pension fund;
- accounting documents of administrative public institutions;
- documents of the non-profit institutions serving households (NPISHs).

These documents are provided in paper form, apart from the general budget that is provided by the Directorate General of Budget in both paper and electronic format. The budget has the advantage of giving more details about both the revenues and the expenses, while the SFOT is more exhaustive but less detailed than the budget. Therefore, the data is harmonised each year.

Regarding the delays in the transmission of data, even if it is easy to acquire the budget or the SFOT within reasonable deadline, this is not the case for the local governments and public institutions, where the non-response rate is fairly high – sometimes reaching 60%. Therefore, adjustments are made for these local authorities and institutions.

The coding of revenue and expense operations is similar to the working framework used in the ERETES module, which is in line with the 1993 SNA.

The administrative public institutions (called special accounts of the Treasury) are entities receiving transfers and subsidies from the state, but their accounts are not detailed in the budget.

Their objectives are in the public's interest and not profit-seeking, and consequently, they are treated as non-commercial entities with zero net operating income.

The detailed bridging tables show how the aggregates are transformed from public accounting to national accounting.

Apart from these entities, non-profit institutions serving households should be also added. Special surveys carried out on a sample of these institutions help to estimate the whole of the NPISHs sector.

The strong mobility of NGOs and associations and the difficulty to get their accounting files makes it difficult to evaluate this sub-sector. With AfDB funds, two surveys on this sector were conducted. Even though these surveys provided accounting data for certain NGOs and associations, they did not allow collecting an exhaustive database, nor accounts that are credible enough for this sub-sector, mainly due to the very limited resources available to carry out the surveys.

Particular cases:

- Fixed capital consumption is calculated by a method consisting of a long series of gross fixed capital formation (GFCF – at current and constant prices) with their indexes, assuming average lifetime and low price variation and by deducing the arithmetic mean of GFCF.
- Capital expenses are calculated according to a spreading method obtained based on a certain number of projects with known activities included in the document called “state investment budget”. This is partly about external aid (reimbursable and non-reimbursable aid) in line with the 1993 SNA. Also, this procedure includes for each different type of aid measures, the calculation of shares that finance investments, operating costs and human resource costs. Nevertheless, the management of the projects out of state-control (directly managed projects) complicate the accounting task of understanding the whole of external aid-related activities.

Figure 0.5.1: Niger – Concordance table for budget items (general government, revenues)

Budget classification	Code	National accounts classification
TAX REVENUES		
Industrial and commercial profits (BIC)	0D5001	Taxes on income
Non-commercial profits (BNC)	0D5001	Taxes on income
Agricultural profits	0D5001	Taxes on income
Unique taxes on wages and salaries ( IUTS )	0D5001	Taxes on income
General income tax (IGR)	0D5001	Taxes on income
Tax minimum tax (MFIs) non sedentary roles.	0D5001	Taxes on income
Tax minimum tax (MFIs) digital nomad roles.	0D5001	Taxes on income
Tax minimum tax (MFIs) registered roles	0D5001	Taxes on income
Taxes on digital sedentary livestock	0D5009	Other direct taxes
Taxes on digital nomad cattle	0D5009	Other direct taxes
Taxes on livestock role nominative	0D5009	Other direct taxes
CONTRIBUTIONS AND LAND REAL ESTATE		
Property tax	0D200E	Other taxes on production
Property tax punches (TBMM )	0D200E	Other taxes on production
Property tax	0D200E	Other taxes on production
Flat housing tax	0D200E	Other taxes on production
Specific tax on capital gain	0D200E	Other taxes on production
Synthetic patent (PS)	0D200E	Other taxes on production
Licenses	0D200E	Other taxes on production

Budget classification	Code	National accounts classification
Apprenticeship tax (TA)	0D200E	Other taxes on production
Tax control of mixed companies	0D200E	Other taxes on production
Tax on certain business overheads ( CDOs )	0D200E	Other taxes on production
INDIRECT TAXES		
Taxes internal consumption	0D200D	Other taxes on products
Value added tax	0D200A	Non-deductible VAT
Other excise	0D200D	Other taxes on products
FEES CHARGED CUSTOMS		
Customs duties on imports (DDI)	0D200B	Taxes on imports
Customs duties on exports ( DDE)	0D200C	Taxes on exports
Cyclical import tax (TCI)	0D200B	Taxes on imports
Tax import duty	0D200B	Taxes on imports
Statistical tax on imports	0D200B	Taxes on imports
Various import duties	0D200B	Taxes on imports
Community preferential tax	0D200B	Taxes on imports
Computer fee	0D200B	Taxes on imports
ECOWAS contribution	0D200B	Taxes on imports
Export tax law	0D200C	Taxes on exports
Surtax re	0D200C	Taxes on exports
Statistical export charge (CSR)	0D200C	Taxes on exports
Search fee	0D200C	Taxes on exports
Tax package	0D200C	Taxes on exports
Special regime of re-export	0D200C	Taxes on exports
Surcharge for re-export	0D200C	Taxes on exports
VAT	0D200A	Non-deductible VAT
Flat export tax	0D200C	Taxes on exports
RECORDS AND SIMILAR TAXES		
Registration fees	0D200E	Other taxes on production
Land registration	0D200E	Other taxes on production
Stamp duty	0D200E	Other taxes on production
Tax income securities ( IRVM )	0D5001	Taxes on income
Taxes import inspection (ITV )	0D200B	Taxes on imports
FIELD OF INCOME		
Occupation of public domain law	0D4005	Net land rents and royalties
Temporary concessions	0D4005	Net land rents and royalties
Final concessions	0D4005	Net land rents and royalties
FORESTRY		
License to cut wood	0D200E	Other taxes on production
Recipes forest governed	0D200E	Other taxes on production
Hunting license and access	0D200E	Other taxes on production
Mining rights , mining taxes and royalties	0D200E	Other taxes on production
Income from securities owned by the state	0D4001	Interests
Income treasury funds	0D4001	Interests
Transfers WAMU	0D7004	International current cooperation
Distribution of profits BCEAO	0D4001	Interests
Dividends	0D4002	Income distributed by companies
PROVIDE PENALTIES CUPS		
Administrative penalties on markets	0D7005	Other misc. current transfers
Fines and court costs	0D7005	Other misc. current transfers
Fines and forfeitures customs	0D7005	Other misc. current transfers
Fines and confiscations forests and hunting	0D7005	Other misc. current transfers

Budget classification	Code	National accounts classification
Fines and confiscations in price control weight measure	0D7005	Other misc. current transfers
Fines and forfeitures in various contributions	0D7005	Other misc. current transfers
Fines and penalties treasure	0D7005	Other misc. current transfers
Fines and penalties, police forces	0D7005	Other misc. current transfers
RESTRAINT AND OTHER SAMPLES		
Levies fees clerks and notaries	0D7005	Other misc. current transfers
Levies on salaries of treasurers / conservat P/FP	0D7005	Other misc. current transfers
Pay-outs on balance	0D7005	Other misc. current transfers
Pay-outs NETS	0D7005	Other misc. current transfers
Fees withholding repayments hospitalizations	0D7005	Other misc. current transfers
National raffle (PMU)	0D7005	Other misc. current transfers
Commissions on transfers	0D7005	Other misc. current transfers
Repayment of advances to various budgets	AF4	Loans
Reimbursements loans to individuals	AF4	Loans
Special advance	AF4	Loans
Refunds technical assistance expenditure	0D7004	International current cooperation
MISCELLANEOUS REVENUE		
Drafts customs	0D7005	Other misc. current transfers
Dividends on common state taxes	0D7005	Other misc. current transfers
Special recipes uranium	0D7005	Other misc. current transfers
Other miscellaneous income	0D7005	Other misc. current transfers
Windfalls	0D7005	Other misc. current transfers
Previous report on revenue management	0D7005	Other misc. current transfers
ASSIGNED RESOURCES		
Revenue offset DGI	0D7005	Other misc. current transfers
Revenue offset DGI	0D7005	Other misc. current transfers
Japanese funds earmarked revenue	0D7005	Other misc. current transfers
HERITAGE RESOURCES		
Out of the reserve fund cash	AF4	Loans
Levy special treasury accounts	AF4	Loans
Donations and bequests	0D7005	Other misc. current transfers
Privatisation revenues	AF5	Stock
RESOURCES LOAN		
Borrowings projects	AF4	Loans
Drawing on the IMF	AF4	Loans
Resources APS	AF4	Loans
Other resources	AF4	Loans
Advances BCEAO	AF4	Loans
CONTRIBUTION AND OTHER RESOURCES		
Retro ceded debt	AF4	Loans
Debt forgiveness and rescheduling	0D9009	Other capital transfers
HIPC resources	0D7004	International current cooperation
Support development work PDDE	0D7003	Current transfers within GG
DOHA Conference	0D7004	International current cooperation
Repayments of OSEM	0D7003	Current transfers within GG
Budget support	0D7004	International current cooperation
Economic Police	0D7005	Other misc. current transfers



Figure 0.5.2: Niger – Concordance table for budget items (general government, income and expenditure)

Revenue	Code	National accounts classification
Taxes on income , profits and capital gains		
Industrial and commercial profits	0D5001	Taxes on income
Non-commercial profits	0D5001	Taxes on income
Taxes on income of the securities	0D5009	Other direct taxes
Fines and penalties (DGI)	0D2	Taxes on production and imports
Fines and penalties	0D2	Taxes on production and imports
Fines and penalties Treasury	0D2	Taxes on production and imports
Tax on winning the lottery	0D5001	Taxes on income
Taxes on salaries and other remuneration		
Single tax on wages and salaries	0D5001	Taxes on income
General income tax	0D5001	Taxes on income
Taxes on property		
Estate tax	0D200E	Other taxes on production
Estate tax	0D200E	Other taxes on production
Residential flat tax	0D5009	Other direct taxes
Special tax on the capital gain	0D5001	Taxes on income
Other direct taxes	0D5009	Other direct taxes
Taxes and domestic taxes on goods and services		
Value added tax		
Value added tax	0D200A	Tax non -deductible value added
Value added tax on imports	0D200A	Tax non -deductible value added
Tax on financial activities	0D200D	Other taxes on products
Tax on insurance contracts	0D200D	Other taxes on products
Tax on specified services		
Differential tax on vehicles	0D200E	Other taxes on production
Road toll	0D200E	Other taxes on production
Tax on lottery revenues	0D200D	Other taxes on products
Taxes on use of goods or services		
Apprenticeship tax	0D200E	Other taxes on production
Synthetic patent	0D200E	Other taxes on production
Hunting license and access	0D200E	Other taxes on production
Tax on a firearms	0D200E	Other taxes on production
Mining rights	0D4005	Net land rents and royalties
License of occupation of public domain	0D4005	Net land rents and royalties
Excise		
Taxes on alcoholic beverages	0D200D	Other taxes on products
Taxes on tobacco and cigarettes	0D200D	Other taxes on products
Other excise	0D200D	Other taxes on products
Flat tax on the exercise of	0D200E	Other taxes on production
Tax on commercial advertisement	0D200E	Other taxes on production
Tax on certain overheads	0D200E	Other taxes on production
Mining royalty	0D4005	Net land rents and royalties
Stamp duty and registration		
Stamp duty	0D200E	Other taxes on production
Registration fees	0D200E	Other taxes on production
Port revenues	0D7003	Current transfers within general government
Levy on communities	0D7003	Current transfers within general government

Revenue	Code	National accounts classification
Flat tax on property right	0D200E	Other taxes on production
Duties and import taxes		
Customs duties on imports	0D200B	Taxes on imports (excluding VAT)
Statistical tax on imports	0D200B	Taxes on imports (excluding VAT)
Value added tax on imports	0D200A	Tax non -deductible value added
Tax on the importation of products	0D200B	Taxes on imports (excluding VAT)
Cyclical tax on imports (TCI)	0D200B	Taxes on imports (excluding VAT)
Fines and forfeitures customs	0D200B	Taxes on imports (excluding VAT)
Other duties and import taxes	0D200B	Taxes on imports (excluding VAT)
Duties and export taxes		
Statistical fee for export	0D200C	Taxes on exports
Special tax re-export	0D200C	Taxes on exports
Other taxes DGD		
ECOWAS fee	0D200B	Taxes on imports (excluding VAT)
Tax verification weights	0D200B	Taxes on imports (excluding VAT)
Tax control of institutions	0D200B	Taxes on imports (excluding VAT)
Tax control of precious metals	0D200B	Taxes on imports (excluding VAT)
Lump sum tax on the right to produce	0D200B	Taxes on imports (excluding VAT)
NON-TAX REVENUE		
Company revenues and domain		
Used for housing	0P100A	Commodity production
Information authorization cuts	0D200E	Other taxes on production
Revenue forestry rules	0D7005	Other misc. current transfers
Rental of buildings	0D7005	Other misc. current transfers
Property advertisement	0D7005	Other misc. current transfers
Temporary concessions	0D4005	Other misc. current transfers
Definitive concessions	0D4005	Other misc. current transfers
Demarcation of land	0D7005	Other misc. current transfers
Administrative fees and charges		
Chancery dues	0D7005	Other misc. current transfers
Presidency official journal	0D7005	Other misc. current transfers
Statistical service plan	0D7005	Other misc. current transfers
Finance store	0D7005	Other misc. current transfers
Administrative garage	0D7005	Other misc. current transfers
Department of Agriculture	0D7005	Other misc. current transfers
Waterworks and Forestry	0D7005	Other misc. current transfers
Health	0D7005	Other misc. current transfers
Other administrative services	0D7005	Other misc. current transfers
Monetary fines and convictions		
Fines and court costs	0D7005	Other misc. current transfers
Fines and costs police	0D7005	Other misc. current transfers
Fines and penalties gendarmerie	0D7005	Other misc. current transfers

Revenue	Code	National accounts classification
Fines and seizure drills and	0D7005	Other misc. current transfers
Penalties on government procurement	0D7005	Other misc. current transfers
Fines and confiscations matt	0D7005	Other misc. current transfers
Financial products		
Area furniture ( DGI)	0D4001	Interests
Distribution of commissions	0D4002	Income distributed by companies
Other financial income	0D4001	Interests
Commission transfer BCEAO	0D5009	Other direct taxes
Interest payable to BCEAO	0D4001	Interests
Social contributions (general budget of the State)	0D6001	Social contributions
Other non-tax revenue		
Levies on fees clerks	0D7005	Other misc. current transfers
Repayment on balance	0D7005	Other misc. current transfers
Reimbursement of hospitalization expenses	0D7005	Other misc. current transfers
Bonus sales donated	0D7005	Other misc. current transfers
Port revenues	0D7003	Current transfers within general government
Miscellaneous Income ( 5th Francophone Games)	0D7005	Other misc. current transfers
Transfers from budgets annexes / special treasury accounts	0D7003	Current transfers within general government
Discounts and debt cancellation	0D9009	Other capital transfers
Treasury refunds of amounts paid	0D7005	Other misc. current transfers
Other extraordinary income		
HIPC resources	0D7004	Current international cooperation
Other miscellaneous income DGI	0D2	Taxes on production and imports
Other miscellaneous income (Treasury)	0D2	Taxes on production and imports
Disposals of capital receipts		
Patents, trademarks, copyrights	K2	Acquisitions less disposals of non-financial non-produced assets
Conceptions of organizational systems	K2	Acquisitions less disposals of non-financial non-produced assets
Exploitation rights	K2	Acquisitions less disposals of non-financial non-produced assets
Other intangible rights and values	K2	Acquisitions less disposals of non-financial non-produced assets
Grounds	0D4005	Net rents of land and royalties
Basements - deposits and quarries	0D4005	Net rents of land and royalties
Plantations and forests	0D4005	Net rents of land and royalties
Water bodies	0D4005	Net rents of land and royalties
Administrative buildings for office	P51	Gross fixed capital formation
Administrative buildings used for housing (civilian and military)	P51	Gross fixed capital formation
Administrative buildings for technical use	P51	Gross fixed capital formation
Works and infrastructure	P51	Gross fixed capital formation
Furniture and equipment housing and office requisites ( other than computing )	P51	Gross fixed capital formation
Desktop hardware	P51	Gross fixed capital formation
Transportation equipment and service function	P51	Gross fixed capital formation
Technical equipment and machinery (other than office )	P51	Gross fixed capital formation
Equipment transportation and freight	P51	Gross fixed capital formation
Collections - Art works	P53	Net acquisitions of valuables
Strategic stocks or emergency	P52	Change in inventories

Revenue	Code	National accounts classification
Livestock	P51	Gross fixed capital formation
Military buildings (other than for housing)	0P2	Intermediate consumption
Military facilities and infrastructure	0P2	Intermediate consumption
Furniture, equipment, military equipment	0P2	Intermediate consumption
Recipes special Treasury accounts and related budgets	0D7003	Current transfers within general government
Other revenues unclassified	0P100A	Commodity production
DONATIONS		
Interior gifts	0D7004	Current international cooperation
External grants	0D9002	Investment grants
TOTAL EXPENDITURE AND NET LENDING		
Total expenditure		
Salaries, wages and allowances	0D1	Compensation of employees
Salaries and wages	0D100100A	Gross wages
Bonuses and allowances	0D100100A	Gross wages
Social contributions in personal status	0D1002	Social contributions paid by employers
Social contributions of personal status off	0D1002	Social contributions paid by employers
Social contributions unventilated	0D1002	Social contributions paid by employers
Awards to deserving agents	0D100100A	Gross wages
Spending unventilated staff	0D100100A	Gross wages
Expenditure accounts of the third		
Other current expenditure	0P2	Intermediate consumption
Benefits in kind staff	0D100100A	Gross wages
Family benefits	0D6002	Social benefits other than in kind
Costs of training staff	0P2	Intermediate consumption
Supplies	0P2	Intermediate consumption
Maintenance costs and maintenance	0P2	Intermediate consumption
Services	0P2	Intermediate consumption
Insurance	0P2	Intermediate consumption
Water, electricity, gas and other energy sources	0P2	Intermediate consumption
Communication expenses	0P2	Intermediate consumption
Rent expense	0P2	Intermediate consumption
Transport costs and mission	0P2	Intermediate consumption
Other purchases of goods and services	0P2	Intermediate consumption
Furniture and equipment housing and office requisites (other than computing )	P51	Gross fixed capital formation
Desktop hardware	P51	Gross fixed capital formation
Transportation equipment and service function	P51	Gross fixed capital formation
Technical equipment and machinery (other than office )	P51	Gross fixed capital formation
Military buildings (other than for housing)	P51	Gross fixed capital formation
Military facilities and infrastructure	P51	Gross fixed capital formation
Furniture, equipment, military equipment	P2	Intermediate consumption
Transfers and subsidies	0D7003	Current transfers within general government
Total budget title IV ( 9014 +470	0D7005	Other misc. current transfers
Contribution to FNR (-)	0D7005	Other misc. current transfers
Transfer to account charter	0D7005	Other misc. current transfers
Participation expenses (-)	0D7005	Other misc. current transfers
Transfer CAFER	0D7005	Other misc. current transfers
EPA grant health	0D7005	Other misc. current transfers

Revenue	Code	National accounts classification
Social safety net	0D7005	Other misc. current transfers
Preparation / implementation	0D7005	Other misc. current transfers
Specific actions	0D7005	Other misc. current transfers
Credit feminine group	0D7005	Other misc. current transfers
Integration, ex-rebels	0D7005	Other misc. current transfers
Education program	0D7005	Other misc. current transfers
Contracts of teachers	0D100100A	Gross wages
Holiday pay volunteer teachers	0D100100A	Gross wages
Scholarships	0D3001	Other misc. current transfers
Electricity subsidy taxes	0D7005	Other misc. current transfers
Subsidies to public institutions	0D7003	Other misc. current transfers
Grants to public and semi - public non-financial	0D3009	Other capital transfers
Subsidies to private companies	0D3009	Other capital transfers
Subsidies to financial institutions	0D3009	Other capital transfers
Grants to other categories of beneficiaries	0D3009	Other capital transfers
Current transfers to other governments	0D7003	Current transfers within general government
Current transfers to non-profit institutions	0D7005	Other misc. current transfers
Current transfers to households	0D7005	Other misc. current transfers
Transfers to supranational authorities	0D7004	Current international cooperation
Contributions to international organizations	0D7004	Current international cooperation
Transfers to supplementary budgets and special Treasury accounts	0D7003	Current transfers within general government
Other current transfers	0D7005	Other misc. current transfers
Other expenses not classified	0D7005	Other misc. current transfers
Convictions and transactions	0D7005	Other misc. current transfers
Other extraordinary charges	0D7005	Other misc. current transfers
Interest due	0D4001	Interests
Capital expenditures	P51	Gross fixed capital formation
Capital expenditures on domestic resources		
Research & Development	0P2	Intermediate consumption
Patents, trademarks , copyrights	P51	Gross fixed capital formation
Conceptions of organizational systems - Firmware	P51	Gross fixed capital formation
Capital transfers		
Capital transfers to other governments	0D9	Capital transfers
Capital transfers to national public institutions	0D9	Capital transfers
Capital transfers to non-financial public enterprises	0D9	Capital transfers
Capital transfers to the private productive sector	0D9	Capital transfers
Capital transfers to financial institutions	0D9	Capital transfers
Capital transfers to non-profit institutions	0D9	Capital transfers
Capital transfers to households	0D9	Capital transfers
Capital transfers to international organizations	0D9	Capital transfers
Other capital transfers abroad	0D9	Capital transfers
Expenditures of special accounts (excluding loans, advances, guarantees and sureties) and related budgets	0D7003	Current transfers within general government
Transfer to the general budget	0D7003	Current transfers within general government
Expenditure of local government (PM)	0D7003	Current transfers within general government
Spending of autonomous bodies (PM)	0D7003	Current transfers within general government

## South Africa

### I.6.1. Brief history on the use of public finance data in national accounts

The national government time series data on public finances from Public Finance Division for use in the compilation of national accounts started in 1960. Initially the public finance data was compiled according to the Government Finance Statistics Manual 1986. Public finance data was revised in September 2003 in accordance with the Government Finance Statistics Manual 2001 (GFS2001).

The budget reform programme was initiated in 1998 when National Treasury started a process of reclassifying the existing expenditure items of government in line with the GFS. This was followed by comprehensive stakeholder consultation at the national and provincial levels. A new GFS reporting format was first introduced in Gauteng and subsequently rolled out to all other provinces. A similar reform was introduced at the national level, with the annual publication of the *Estimates of National Expenditure* (ENE).

The process culminated on 1 April 2004, when the new Expenditure Reporting Format (ERF) and Standard Chart of Accounts (SCOA) were introduced. Departments were required to submit their 2004 budget in line with the new format to ensure that correctly classified budget data could be loaded onto the system for the 2004/05 financial year. Since then, ERF and SCOA have been fully operational and used by all national and provincial departments.

Although the implementation process proceeded smoothly, as the accounting and reporting requirements evolved and with the pending introduction of the Integrated Financial Management System (IFMS), areas of improvement were identified and appropriate amendments were proposed. This led to the review of ERF and SCOA, which took place in 2007. The revised versions were implemented on 1 April 2008. The most important change was the addition of two new segments to SCOA, as well as the standardisation of most segments of SCOA. There were also some additions to the list of capital assets and some improvements to the definitions.

It might be useful to explain the link between ERF and SCOA in more detail. ERF is the high-level presentation format of the Economic Classification of all government receipt and payment items for reporting purposes. It provides meaningful information to parliamentarians, financial practitioners, economic analysts and other users of government financial data. ERF is supported at the more detailed level by SCOA, which serves as a data entry or collection tool, where each detailed item is recorded at the posting level. SCOA comprises the coding of items used for classification, budgeting, recording and reporting of receipts and payments within the financial system. It serves to facilitate and systematise the recording of all transactions and is directly linked to ERF, in fact, the posting level items roll up to the ERF reporting format.

This chapter starts with the discussion of the agencies responsible for government accounts and what constitutes the operation of general government covers. Secondly it deals with the sources and institutional arrangements for access of government accounts. Thirdly, the coding structure of the accounts for Government Finance statistics and national accounts is discussed. Finally it then deals with departmental enterprises, discusses bridging tables and deals with compilation issues.



## **I.6.2. Sources and institutional arrangements for access of government accounts**

### ***Agencies responsible for government accounts***

The agencies responsible for the government accounts are the National Treasury of South Africa, Statistics South Africa (StatsSA) and the South African Reserve Bank (SARB). The scope and coverage of the government accounts are according to the System of National Accounts 1993 and the Government Finance Statistics (GFSM2001).

The National Treasury (data producing agency) has the legal authority to collect data to compile statistics and is governed by the Public Finance Management Act. The SARB in its role as the IMF's SDDS coordinator, disseminates data in its *Quarterly Bulletin*. The financial statistics of general government are published annually by StatsSA as a Statistical Release, with key findings on the different categories of receipts, payments, investment in non-financial assets. Local government statistics are compiled by StatsSA. This information is compared to the quarterly data published by the Bank in the *Quarterly Bulletin*. A consultative meeting is held annually between National Treasury, StatsSA and the SARB to iron out the differences in the data.

### ***Scope of government accounts***

The general government data are the data of the consolidated central government (i.e. budgetary central government accounts, social security funds and extra-budgetary units), provincial and the local governments. Institutional sectors are defined in accordance with the System of National Accounts 1993 and the GFSM2001.

The national government and provincial government operate on a cash basis while the social security funds, extra-budgetary units and local governments operate on an accrual basis. Therefore, the information published in the *Quarterly Bulletin* is only the *Statement of Sources and Uses of Cash*. However, annually the *Statement of Government Operations* for all levels of government is sent to the IMF for the GFS Yearbook. For national and provincial governments, cash data is used as a proxy of the accrual data for the latest years and for earliest/prior years audited financial statements data is used for both cash and accrual. Consumption of fixed capital estimates are from the national accounts. The following tables are published in the *Quarterly Bulletin*:

- Production, distribution and accumulation accounts of SA: General Government.
- Financing of gross capital formation: Saving of General government.
- Expenditure of gross domestic product: Final consumption expenditure by general government.

Government saving data is also published in the National Financial Account: Flow of Funds.

The quarterly analysis of general government presents revenue, expense, net lending/borrowing, (cash deficit/surplus) and financing broken down by debt instrument, broadly defined and classified according to the IMF's "Government Finance Statistics Manual, 2001". GFS data is provided separately for the central government, provincial governments, local governments, and for consolidated general government. The fiscal year begins on April 1 and ends on March 31 the following year.

### ***Coverage (central, provincial, local bodies and autonomous government institutions)***

The three institutions, National Treasury, StatsSA, and the SARB formed the Public Sector Classification Committee (PSCC) through a Memorandum of Understanding (MOU) dated 01 April 2009 to coordinate the classification of the public sector institutional units and subsectors for purposes of reporting to national and international stakeholders.

The operations of general government covers:

- The national government: The budgetary accounts of national government (or main budget accounts) comprising 38 government departments, standing appropriations and statutory payments.
- Social security funds: The social security funds consists of four funds namely the Compensation Commissioner for Occupational Diseases, Unemployment Insurance Fund, the Workmen's Compensation Fund, and the Road Accident Fund.
- Extra-budgetary units: The extra-budgetary units consist of about 170 including Sector Education and Training Authorities (SETAS) units as well as 23 Universities of Technology and Technicons.
- Provincial governments: The financial accounts of the 9 provinces of the Republic of South Africa are included in the analysis of the general government as well as provincial public entities and business enterprises.
- Local governments: Prior to the December 2000 elections, there were 843 local authorities. There are currently 278 units, with financial reporting based on the new structures, taking effect from July 1, 2001. The Municipal Finance Management Act No. 56 of 2003 (MFMA) was introduced by National Treasury to enhance financial management reforms across government; this became effective in July 2004. Generally Recognized Accounting Practices (GRAP) /Generally Accepted Municipal Accounting Practices (GAMAP) reporting standard are currently being implemented in a phased approach.

No legal mandate exists for the SARB to collect data on government accounts. However other institutional arrangement exists such as Memorandums of Understanding for accessing government accounts. Data is shared in electronic format and printed form. Data is available to the SARB 30 days after month-end or quarter-end in electronic format and hard copy.

### **I.6.3. Structure of government accounts that are provided for national accounts compilation**

#### ***Coding structure***

The coding structure is standardised across all levels of government (central, provincial, local) and departments. The coding structure for item-wise revenues and expenditures (transactions) that are given in the accounts is according to the GFSM2001: Revenue: 1000, Expenditure: 2000, Non-financial assets: 3100, Financial assets: 3200 and Liabilities: 3300.

For national accounts purposes, internationally established codes are being used; classification of institutional sectors in 1993 SNA and classifications of transactions and other flows.

#### ***Departmental enterprises***

In the national accounts, government business enterprises are calculated separately and are not treated as part of general government services. Departmental enterprises are treated as market enterprises for estimating output and losses if any are treated as imputed subsidies.



Figure 0.6.1: South Africa – Integrated Economic Accounts of local government

FINAL IN GDP Rand millions					
Manufacturing SIC 301	2013/01	2013/02	2013/03	2013/04	2013
<b>Sic 41</b>					
<b>Market producer Electricity and gas</b>					
<b>Production account</b>					
Output at basic prices	7 589	7 217	6 497	7 763	29 066
less Intermediate consumption	2 068	2 926	1 811	2 122	8 927
Gross value added at basic prices	5 521	4 291	4 686	5 641	20 139
<b>Generation of Income account</b>					
Gross value added at basic prices	5 521	4 291	4 686	5 641	20 139
less Compensation of employees	1 216	1 209	1 262	1 438	5 125
less other taxes on production	0	0	0	0	0
Gross operating surplus	4 305	3 082	3 424	4 203	15 014
<b>Sic 42</b>					
<b>Market producer Water</b>					
<b>Production account</b>					
Output at basic prices	6 771	6 587	6 304	6 837	26 499
less Intermediate consumption	5 371	5 430	5 035	5 424	21 260
Gross value added at basic prices	1 400	1 157	1 269	1 413	5 239
<b>Generation of Income account</b>					
Gross value added at basic prices	1 400	1 157	1 269	1 413	5 239
less Compensation of employees	1 324	1 232	1 303	1 473	5 332
less other taxes on production	0	0	0	0	0
plus other subsidies on production	73	75	59	150	357
Gross operating surplus	149	0	25	90	264
<b>SIC 9 other services</b>					
<b>Market producer other trading services (forestry agriculture, airport, mineral baths, stone crushing and sand supply services)</b>					
<b>Production account</b>					
Output at basic prices	661	793	736	792	2 982
less Intermediate consumption	172	259	229	248	908
Gross value added at basic prices	489	534	507	544	2 074
<b>Generation of Income account</b>					
Gross value added at basic prices	489	534	507	544	2 074
less Compensation of employees	493	457	528	594	2 072
less other taxes on production	0	0	0	0	0
plus other subsidies on production	5	3	22	69	99
Gross operating surplus	1	80	1	19	101
<b>Sic 7</b>					
<b>Market producer passenger transport</b>					
<b>Production account</b>					
Output at basic prices	2 163	3 627	2 178	2 976	10 944
less Intermediate consumption	1 274	2 679	1 222	1 852	7 027
Gross value added at basic prices	889	948	956	1 124	3 917
<b>Generation of Income account</b>					
Gross value added at basic prices	889	948	956	1 124	3 917
less Compensation of employees	949	991	1 030	1 155	4 125
less other taxes on production	0	0	0	0	0
plus other subsidies on production	60	43	74	31	208
Gross operating surplus	0	0	0	0	0
<b>Sic 94</b>					
<b>Market producer waste management</b>					
<b>Production account</b>					
Output at basic prices	3 945	4 454	4 918	5 108	18 425
less Intermediate consumption	1 705	2 297	1 380	1 866	7 248
Gross value added at basic prices	2 240	2 157	3 538	3 242	11 177
<b>Generation of Income account</b>					
Gross value added at basic prices	2 240	2 157	3 538	3 242	11 177
less Compensation of employees	1 450	1 465	1 522	1 701	6 138
less other taxes on production	0	0	0	0	0
plus other subsidies on production	14	29	12	18	73
Gross operating surplus	804	721	2 028	1 559	5 112
<b>Total Market producer General government enterprises (ex housing)</b>					
<b>Production account</b>					
Output at basic prices	21 129	22 678	20 633	23 476	87 916
less Intermediate consumption	10 590	13 591	9 677	11 512	45 370
Gross value added at basic prices	10 539	9 087	10 956	11 964	42 546
<b>Generation of Income account</b>					
Gross value added at basic prices	10 539	9 087	10 956	11 964	42 546
less Compensation of employees	5 432	5 354	5 645	6 361	22 792
less other taxes on production	0	0	0	0	0
plus other subsidies on production	152	150	167	268	737
Gross operating surplus	5 259	3 683	5 478	5 871	20 491
	0	0	0	0	0

INTEGRATED ECONOMIC ACCOUNTS  
OF LOCAL GOVERNMENT  
At current prices  
R millions

1 STATS SA release P 9110

Ref		P9110 Quarter ending Dec
	Sic 41	
3	Market producer Electricity and gas	
I		
P.1	<b>Production account</b>	
	Output at basic prices	7762.74
	Electricity	7214
	Sales of electricity	20081.8
	less Purchases of electricity	12868.2
	Other income	505.9
	Rental of facilities and equipment	1.5
	Fees	3.9
	Income from agency services	0.1
	Public contributions and donations	29.6
	Licences and permits	0.0
	Subsidies on products	8.1
P.2	less Intermediate consumption	2121.7
	General expenditure	269.0
	Other expenditure	766.9
	Collection cost	21.4
	Repairs	889.7
B.1	Contracted services	194.7
	<b>Gross value added at basic prices</b>	<b>5641.1</b>
II.1.1	<b>Generation of Income account</b>	
II.1g	Gross value added at basic prices	5641.1
D.1	less Compensation of employees	1437.8
	Employee related cost	1437.8
D.11	Wages and salaries	
D.12	Employers social contributions	
D.29	less Taxes on production	0.0
	Property rates	
	Expenditure Levies paid	
D.39	Subsidies on production, do not add in	0.0
B.2g	<b>Gross operating surplus</b>	<b>4203.3</b>

#### **I.6.4. Translating the item-wise revenues and expenditures shown in government accounts**

##### ***Formats or bridge tables prepared to link the transactions with SNA codes***

The bridge tables have been created (see section I.6.9). Classification codes are assigned according to the SNA for compensation of employees, intermediate consumption, current transfers, taxes on products, etc. The functional classification coding system (as in COFOG or country specific) is not used in the SNA. However, the COFOG classification codes are used in the GFS division.

Functional outlays:

Data on the functional outlays as published in the Bank's *Quarterly Bulletin* on page S-76 do not agree with Stats SA figures for methodological reasons. The source of the information in the bulletin is based on the analysis done by Stats SA. The main reason for the differences between the Bank's cash data and the functional information as published by Stats SA is their recording principles of local government. Stats SA records only the general government services of local government, whereas the Bank includes trading services as part of local government.

##### ***Adjustments made in the source data***

Government operates on a cash basis or adjusted cash basis. This information is forwarded to National accounts without any adjustments. Because national accounts and the rest of the economy operate on an accrual basis, adjustments need to be made to the cash data.

##### ***Translating the government account data to SNA account data***

A "Statement of Sources and uses of Cash" is compiled by the Public Finance Division according to the GFSM2001. The coding structure used is according to the GFSM2001. National accounts assign a code to the data from G1-G24. A bridging table of current income and expenditure of general government (at current prices) is created with a national accounting code attached to each line item. Because GFS data is on a cash basis, consumption of fixed capital is not included. Consumption of fixed capital is included in national accounts government accounts and is derived from gross fixed capital formation using the straight line method.

##### ***Calculation of Consumption of Fixed Capital***

Consumption of fixed capital should in principle be calculated for all categories of fixed capital investment, including tangible fixed assets and intangible fixed assets such as mineral exploration costs and computer software. Many times it is not possible to compile the stock of fixed assets for the whole economy of the country. It is then recommended that the perpetual inventory method (PIM) should be used to calculate the stock of fixed assets if direct method is not available.

The PIM method is a straight-line method where the value of the asset is written off at a constant rate over the whole time of the item. A long historical time series for different asset types of gross fixed capital formation is needed for this purpose. Different asset types have different lifetime periods. The current estimates of economic lifetimes for the different types of assets in South Africa vary between a maximum of 80 years for the construction works and 8 years for transport equipment.

Figure 0.6.2: South Africa – The economic lifetime according to type of asset

Type of asset	Sector	Lifetime
Residential buildings		50 years
Non-residential buildings		50 years
Construction works	Agriculture	80 years
	Mining	30 years
	General government	80 years
	Other	50 years
Transport equipment		8 years
Machinery & other equipment	Manufacturing	8 years
	Mining & Electricity, gas and water	16 years
	Other	10 years

Formula programmed where X = Number of terms (i.e. service life):

$$Y = GFCF$$

The results yield:

$$CFC = (Y[t-X] + Y[t-(X-1)] + Y[t-(X-2)] + \dots + Y[t]) / X$$

Figure 0.6.3: South Africa – Example of a straight line method based on a 5-year service life asset

Years	Y1	Y2	Y3	Y4	Y5
GFCF	250				
GFCF		500			
GFCF			600		
GFCF				700	
GFCF					1000
<b>Total</b>	250	500	600	700	1000
<b>Years</b>	<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>
CFC	50	50	50	50	50
CFC		100	100	100	100
CFC			120	120	120
CFC				140	140
CFC					200
<b>Total</b>	50	150	270	410	610

### I.6.5. Recording of taxes and social contributions

The following table shows how taxes and social contributions are accounted for in the national accounts from the GFS.

Figure 0.6.4: South Africa – Taxes and social contributions

KBP6603J	R millions	Taxes on products
KBP6600J	R millions	Other taxes on production in all industries
KBP6251J	R millions	General Government: Current taxes on income and wealth
KBP6794J	R millions	Secondary distribution of income account: Social contributions received: General government

**Taxes on products:**

- Customs duties
- Excise
- SACU tax (calculation done)
- Revenue from neighbouring countries
- Fuel levy
- Provincial taxes on goods & services
- Transfer duties
- VAT

**Other taxes on production:**

- Stamp duty fees
- Marketable securities tax
- Provincial government: taxes on goods & services
- Local government: taxes on production (Data from StatsSA via SARB Public Finance Division)
- Taxes on payroll & workforce
- Extra-budgetary institutions: Other taxes (Data from SARB Public Finance Division survey)

**Current taxes on income and wealth**

- Provincial government: vehicle taxes
- Income tax from companies
- Income tax from individuals
- Secondary tax on companies
- Interest on overdue income tax
- Extra budgetary institutions: Other taxes (Data from SARB Public Finance Division survey)
- Other taxes on goods & services
- Withholding tax (Departure tax)
- Unallocated tax

**Secondary distribution of income account: Social contributions received by Government**

- Social security agencies: Social contributions from business enterprises (Data from SARB Public Finance Division survey)
- Social security agencies: Social contributions from households (Data from SARB Public Finance Division survey)

**I.6.6. Departmental enterprises and autonomous government institutions**

South Africa does not have departmental enterprises and autonomous government institutions that are fully funded and are not included in government account. However, we have a sub-sector called extra-budgetary institutions that are autonomous and partly or fully funded by government. These institutions are included in the general government analysis.

## I.6.7. Analysis of national government and provincial governments

### *Analysis of national government*

The PFMA stipulates that “Within 30 days after the end of each month, the National Treasury publish in the National Government Gazette a statement of actual revenue and expenditure with regard to the National Revenue Fund”. Accordingly, the following data is published monthly, within 30 working days:

- Summary Table;
- Table 1: Revenue;
- Table 2: Expenditure;
- Table 3: Revenue Fund receipts and Direct Exchequer payments;
- Table 4: Financing; and
- Table 5: Summary of Cash Flow

The summary statement summarise revenue less expenditure and the funding of the deficit through the various financing papers. National government revenue and expenditure are detailed in tables 1 and 2, respectively. The tables indicate revenue and expenditure for the reporting month, together with comparable figures for the previous year. Table 3 contains information on extraordinary receipts and payments that are not included as revenue or expenditure. Table 4 sets out the net financing for the reporting month compared with the audited outcome for the same reporting month in the previous year. Table 4 information is received from the Asset and Liability Management division. A cash flow schedule for the Exchequer Account is included as table 5, summarising exchequer revenue to and departmental requisitions from the National Revenue Fund. These flows differ from the actual receipts and outlays in tables 1 and 2, mainly because of timing differences between the cashbook transactions of departments and the South African Revenue Service.

### *Analysis of provincial governments*

On quarterly basis a statement of provincial funds is released by the National Treasury to the public through a press release, and the information uploaded to the National Treasury website.

The basis for publishing the required information is the In-Year Management, Monitoring and Reporting system (IYM). On a monthly basis, the nine provincial treasuries submit information on their revenue and expenditure in a form of an IYM Model in excel format on their:

- current level of revenue and expenditure against budget
- projections of revenues and expenditure for the remainder of the year
- reasons for deviations from plan, and any remedial steps that need to be taken.

## I.6.8. Example of statement of sources and uses of cash

Figure 0.6.5: South Africa – Statement of sources and uses of cash

National Government		
'R millions		
Statement of Sources and Uses of Cash		
GFS Code		NEW TIME SERIES
	Net cash-flow from operating activities	GCA4000Q
1.000	CASH RECEIPTS FROM OPERATING ACTIVITIES	1000

<u>11.000</u>	<b>Taxes</b>	1100
<u>111.000</u>	<b><i>Taxes on income, profits and capital gains</i></b>	1101
<u>1111.000</u>	Payable by individuals	<b>1102</b>
<u>1112.000</u>	Payable by corporations and other enterprises	<b>1103</b>
<u>1113.000</u>	Unallocable between 1111 and 1112	<b>1104</b>
<u>112.000</u>	<b><i>Taxes on payroll and workforce</i></b>	1120
<u>113.000</u>	<b><i>Taxes on property</i></b>	1130
<u>1131.000</u>	Recurrent taxes on immovable property	<b>1131</b>
<u>1132.000</u>	Recurrent taxes on net wealth	<b>1132</b>
<u>1133.000</u>	Estate, inheritance, and gift taxes	<b>1133</b>
<u>1134.000</u>	Taxes on financial and capital transactions	<b>1134</b>
<u>1135.000</u>	Other nonrecurrent taxes on property	<b>1135</b>
<u>1136.000</u>	Other recurrent taxes on property	<b>1136</b>
<u>1137.000</u>	Unallocable taxes on property	<b>1137</b>
<u>114.000</u>	<b><i>Taxes on goods and services</i></b>	1150
<u>1141.000</u>	General taxes on goods and services	1151
<u>11411.000</u>	Value-added taxes	<b>1152</b>
<u>11412.000</u>	Sales taxes	<b>1153</b>
<u>11413.000</u>	Turnover and other general taxes on goods and services	<b>1154</b>
-	Turnover tax for small businesses	<b>1163</b>
-	Other general taxes on goods and services	<b>1164</b>
<u>1142.000</u>	Excises	<b>1155</b>
<u>1143.000</u>	Profits of fiscal monopolies	<b>1156</b>
<u>1144.000</u>	Taxes on specific services	<b>1157</b>
<u>1145.000</u>	Taxes on use of goods or on permission to use goods or to perform activities	1158
<u>11451.000</u>	Motor vehicles taxes	<b>1159</b>
<u>11452.000</u>	Other taxes on use of goods or on permission to use goods or perform activities	<b>1160</b>
<u>1146.000</u>	Other taxes on goods and services	<b>1161</b>
-	Unallocable taxes on goods and services	<b>1162</b>
<u>115.000</u>	<b><i>Taxes on international trade and transactions</i></b>	1170
<u>1151.000</u>	Customs and other import duties	<b>1171</b>
<u>1152.000</u>	Taxes on exports	<b>1172</b>
<u>1153.000</u>	Profits of export or import monopolies	<b>1173</b>
<u>1154.000</u>	Exchange profits	<b>1174</b>
<u>1155.000</u>	Exchange taxes	<b>1175</b>
<u>1156.000</u>	Other taxes on international trade and transactions	<b>1176</b>
<u>116.000</u>	<b><i>Other taxes</i></b>	1190
<u>1161.000</u>	Paid solely by business	<b>1191</b>
<u>1162.000</u>	Paid by other than business or unidentifiable	<b>1192</b>
<u>13.000</u>	<b>Grants</b>	1300
<u>131.000</u>	<b><i>From foreign governments</i></b>	1301
<u>1311.000</u>	Current	<b>1302</b>
<u>133.000</u>	<b><i>From other general government units</i></b>	1340
<u>1331.000</u>	Current	1341
-	Social Security Funds	<b>1346</b>
<u>14.000</u>	<b>Other receipts</b>	1400
<u>141.000</u>	<b><i>Property income</i></b>	1401
<u>1411.000</u>	Interest	<b>1402</b>
<u>1412.000</u>	Dividends	<b>1403</b>
<u>1415.000</u>	Rent	<b>1406</b>
-	Unallocable property income	1406
<u>142.000</u>	<b><i>Sales of goods and services</i></b>	1420
-	Administrative fees	<b>1422</b>



<u>1423.000</u>	Incidental sales by nonmarket establishments	<b>1423</b>
<u>143.000</u>	<i>Fines, penalties and forfeits</i>	1440
<u>144.000</u>	<i>Voluntary transfers other than grants</i>	1450
<u>1441.000</u>	Current	1451
-	Other Institutions	<b>1454</b>
<u>145.000</u>	<i>Miscellaneous and unidentified revenue</i>	<b>1470</b>
<b>2.000</b>	<b>CASH PAYMENTS FOR OPERATING ACTIVITIES</b>	2000
<u>21.000</u>	<b>Compensation of employees</b>	2100
<u>211.000</u>	Wages and salaries	2101
<u>2111.000</u>	Wages and salaries in cash	<b>2102</b>
<u>2112.000</u>	Wages and salaries in kind	<b>2103</b>
<u>212.000</u>	Social contributions	2120
<u>2121.000</u>	Actual social contributions	<b>2121</b>
<u>2122.000</u>	Imputed social contributions	<b>2122</b>
	Unallocable compensation of employees	<b>2140</b>
<u>22.000</u>	<b>Purchases of goods and services</b>	<b>2200</b>
<u>24.000</u>	<b>Interest</b>	2400
<u>241.000</u>	To non-residents	<b>2401</b>
<u>242.000</u>	To residents other than the general government	2402
-	Non-Financial Public Corporations	<b>2403</b>
-	Financial Public Corporations	<b>2404</b>
-	Other Institutions	<b>2405</b>
<u>243.000</u>	To other general government units	2406
-	National Government Departments	<b>2407</b>
-	National Government Other Extra-Budgetary Institutions	<b>2408</b>
-	Universities	<b>2409</b>
-	Technicons	<b>2410</b>
-	Social Security Funds	<b>2411</b>
-	Local Governments	<b>2412</b>
-	Provincial Governments Extra-Budgetary Institutions	<b>2413</b>
-	Provincial Governments	<b>2414</b>
-	Unallocable interest	<b>2415</b>
<u>25.000</u>	<b>Subsidies</b>	2500
<u>251.000</u>	To public corporations	2501
<u>0.000</u>	To nonfinancial public corporations	<b>2502</b>
<u>2512.000</u>	To financial public corporations	<b>2503</b>
<u>252.000</u>	To private enterprises	2520
<u>2521.000</u>	To nonfinancial private enterprises	<b>2521</b>
<u>2522.000</u>	To financial private enterprises	<b>2522</b>
-	Unallocable subsidies	2540
<u>26.000</u>	<b>Grants</b>	2600
<u>261.000</u>	To foreign governments	2601
<u>2611.000</u>	Current	<b>2602</b>
<u>2612.000</u>	Capital	<b>2603</b>
<u>262.000</u>	To international organizations	2620
<u>2621.000</u>	Current	<b>2621</b>
<u>2622.000</u>	Capital	<b>2622</b>
<u>263.000</u>	To other general government units	2640
<u>2631.000</u>	Current	2641
	National Government Departments	<b>2642</b>
	National Government Other Extra-Budgetary Institutions	<b>2643</b>
	Universities	<b>2644</b>

	Technicons	<b>2645</b>
	Social Security Funds	<b>2646</b>
	Local Governments	<b>2647</b>
	Provincial Governments Extra-Budgetary Institutions	<b>2648</b>
	Provincial Governments	<b>2649</b>
2632.000	Capital	2650
	National Government Departments	<b>2651</b>
	National Government Other Extra-Budgetary Institutions	<b>2652</b>
	Universities	<b>2653</b>
	Technicons	<b>2654</b>
	Social Security Funds	<b>2655</b>
	Local Governments	<b>2656</b>
	Provincial Governments Extra-Budgetary Institutions	<b>2657</b>
	Provincial Governments	<b>2658</b>
<u>27.000</u>	<b>Social benefits</b>	2700
<u>271.000</u>	Social security benefits	2701
<u>2711.000</u>	Social security benefits in cash	<b>2702</b>
<u>2712.000</u>	Social security benefits in kind	<b>2703</b>
<u>272.000</u>	Social assistance benefits	2720
<u>2721.000</u>	Social assistance benefits in cash	<b>2721</b>
<u>2722.000</u>	Social assistance benefits in kind	<b>2722</b>
<u>273.000</u>	Employer social benefits	2740
<u>2731.000</u>	Employer social benefits in cash	<b>2741</b>
<u>2732.000</u>	Employer social benefits in kind	<b>2742</b>
-	Unallocable social benefits	<b>2760</b>
<u>28.000</u>	<b>Other payments</b>	2800
<u>281.000</u>	Property expense other than interest	2801
2811.000	Dividends (public corporations only)	<b>2802</b>
2812.000	Withdrawals from income of quasi-corporations (public corporations only)	<b>2803</b>
2813.000	Property expense attributed to insurance policyholders	<b>2804</b>
<u>2814.000</u>	Rent	<b>2805</b>
<u>282.000</u>	Miscellaneous other expense	2820
<u>2821.000</u>	Current	2821
-	Local Governments	<b>2822</b>
-	To other institutions	2823
-	NPISH	2829
-	Households	2830
-	National Revenue Fund: Surrenders	2833
<u>2822.000</u>	Capital	2824
-	To public corporations	<b>2825</b>
-	To non-financial public corporations	<b>2826</b>
-	To financial public corporations	<b>2827</b>
-	To other institutions	<b>2828</b>
-	NPISH	<b>2831</b>
-	Households	<b>2832</b>
<b>31.000</b>	<b>Net cash outflow from investments</b>	3100
<b>311.000</b>	<b>Fixed assets</b>	3101
<b>3111.000</b>	<b><i>Buildings and structures</i></b>	3102
31111.000	Dwellings	3103
31112.000	Non-residential buildings	3104
31113.000	Other structures	3105
<b>3112.000</b>	<b><i>Machinery and equipment</i></b>	3106
31121.000	Transport equipment	3107



31122.000	Other machinery and equipment	3108
<b>3113.000</b>	<b><i>Other fixed assets</i></b>	3109
31131.000	Cultivated assets	3110
31132.000	Intangible fixed assets	3111
<b>312.000</b>	<b>Inventories</b>	3120
<b>3121.000</b>	<b><i>Strategic stocks</i></b>	3121
<b>3122.000</b>	<b><i>Other inventories</i></b>	3122
31221.000	Materials and supplies	3123
31222.000	Work in process	3124
31223.000	Finished goods	3125
31224.000	Goods for resale	3126
<b>313.000</b>	<b>Valuables</b>	3140
<b>314.000</b>	<b>Nonproduced assets</b>	3150
3141.000	Land	3151
3142.000	Subsoil assets	3152
3143.000	Other naturally occurring assets	3153
3144.000	Intangible nonproduced assets	3154
	<b>Unallocable non-financial assets - net</b>	3170
<u>31.000</u>	<b>PURCHASES OF NONFINANCIAL ASSETS</b>	3200
<u>311.000</u>	<b>Fixed assets</b>	3201
<u>3111.000</u>	<b><i>Buildings and structures</i></b>	3202
<u>31111.000</u>	Dwellings	<b>3203</b>
<u>31112.000</u>	Non-residential buildings	<b>3204</b>
<u>31113.000</u>	Other structures	<b>3205</b>
<u>3112.000</u>	<b><i>Machinery and equipment</i></b>	3206
<u>31121.000</u>	Transport equipment	3207
<u>31122.000</u>	Other machinery and equipment	3208
<b>3113.000</b>	<b><i>Other fixed assets</i></b>	3209
31131.000	Cultivated assets	<b>3210</b>
31132.000	Intangible fixed assets	<b>3211</b>
<u>312.000</u>	<b>Inventories</b>	3220
<u>3121.000</u>	<b><i>Strategic stocks</i></b>	<b>3221</b>
<u>3122.000</u>	<b><i>Other inventories</i></b>	3222
<u>31221.000</u>	Materials and supplies	<b>3223</b>
<u>31222.000</u>	Work in process	<b>3224</b>
<u>31223.000</u>	Finished goods	<b>3225</b>
<u>31224.000</u>	Goods for resale	<b>3226</b>
<b>313.000</b>	<b>Valuables</b>	<b>3240</b>
<u>314.000</u>	<b>Nonproduced assets</b>	3250
<u>3141.000</u>	Land	<b>3251</b>
<u>3142.000</u>	Subsoil assets	<b>3252</b>
<u>3143.000</u>	Other naturally occurring assets	<b>3253</b>
<u>3144.000</u>	Intangible nonproduced assets	<b>3254</b>
	<b>Unallocable non-financial assets PURCHASED</b>	<b>3270</b>
<u>31.000</u>	<b>SALES OF NONFINANCIAL ASSETS</b>	3300
<u>311.000</u>	<b>Fixed assets</b>	3301
<u>3111.000</u>	<b><i>Buildings and structures</i></b>	3302
<u>31111.000</u>	Dwellings	<b>3303</b>
<u>31112.000</u>	Non-residential buildings	<b>3304</b>
<u>31113.000</u>	Other structures	<b>3305</b>
<u>3112.000</u>	<b><i>Machinery and equipment</i></b>	3306
<u>31121.000</u>	Transport equipment	<b>3307</b>

<u>31122.000</u>	Other machinery and equipment	<b>3308</b>
<b>3113.000</b>	<b><i>Other fixed assets</i></b>	3309
<u>31131.000</u>	Cultivated assets	<b>3310</b>
<u>31132.000</u>	Intangible fixed assets	<b>3311</b>
<u>312.000</u>	<b>Inventories</b>	3320
<u>3121.000</u>	<b><i>Strategic stocks</i></b>	<b>3321</b>
<u>3122.000</u>	<b><i>Other inventories</i></b>	3322
<u>31221.000</u>	Materials and supplies	<b>3323</b>
<u>31222.000</u>	Work in process	<b>3324</b>
<u>31223.000</u>	Finished goods	<b>3325</b>
<u>31224.000</u>	Goods for resale	<b>3326</b>
<b>313.000</b>	<b>Valuables</b>	<b>3340</b>
<u>314.000</u>	<b>Nonproduced assets</b>	3350
<u>3141.000</u>	Land	<b>3351</b>
<u>3142.000</u>	Subsoil assets	<b>3352</b>
<u>3143.000</u>	Other naturally occurring assets	<b>3353</b>
<u>3144.000</u>	Intangible nonproduced assets	<b>3354</b>
	Unallocable non-financial assets disposal	<b>3370</b>
NEW	<b>Cash surplus/deficit</b>	4100
NEW	<b>Net cash-flow from financing activities</b>	4200
<u>32.000</u>	<b>Financial assets</b>	3500
<b>3211.000</b>	<b>Domestic</b>	3501
32113.000	Securities other than shares	<b>3503</b>
32114.000	Loans	<b>3504</b>
	National Government Departments	<b>3505</b>
	National Government Other Extra-Budgetary Institutions	<b>3506</b>
	Universities	<b>3507</b>
	Technicons	<b>3508</b>
	Social Security Funds	<b>3509</b>
	Local Governments	<b>3510</b>
	Provincial Governments Extra-Budgetary Institutions	<b>3511</b>
	Provincial Governments	<b>3512</b>
	Non-Financial Public Corporations	<b>3513</b>
	Financial Public Corporations	<b>3514</b>
	Other institutions	<b>3515</b>
32115.000	Shares and other equity	<b>3516</b>
	Non-Financial Public Corporations	<b>3518</b>
	Financial Public Corporations	<b>3517</b>
	Other Institutions	<b>3519</b>
32116.000	Insurance technical reserves	<b>3520</b>
32117.000	Financial derivatives	<b>3521</b>
32118.000	Other accounts receivable	<b>3522</b>
	National Government Departments	<b>3523</b>
	National Government Other Extra-Budgetary Institutions	<b>3524</b>
	Universities	<b>3525</b>
	Technicons	<b>3526</b>
	Social Security Funds	<b>3527</b>
	Local Governments	<b>3528</b>
	Provincial Governments Extra-Budgetary Institutions	<b>3529</b>
	Provincial Governments	<b>3530</b>
	Non-Financial Public Corporations	<b>3531</b>
	Financial Public Corporations	<b>3532</b>
	Other institutions	<b>3533</b>

	Unallocable domestic financial assets	<b>3534</b>
<u>3212.000</u>	<b>Foreign</b>	3550
32123.000	Securities other than shares	<b>3552</b>
32124.000	Loans	<b>3553</b>
32125.000	Shares and other equity	<b>3554</b>
32126.000	Insurance technical reserves	<b>3555</b>
32127.000	Financial derivatives	<b>3556</b>
32128.000	Other accounts receivable	<b>3557</b>
	Unallocable foreign financial assets	<b>3558</b>
<u>3223.000</u>	<b>Monetary gold and SDRs</b>	<b>3570</b>
<u>33.000</u>	<b>Liabilities</b>	<b>3600</b>
<b>331.000</b>	<b>Domestic</b>	<b>3601</b>
<u>3313.000</u>	Securities other than shares	<b>3603</b>
<u>3314.000</u>	Loans	<b>3604</b>
-	National Government Departments	<b>3605</b>
-	National Government Other Extra-Budgetary Institutions	<b>3606</b>
-	Universities	<b>3607</b>
-	Technicons	<b>3608</b>
-	Social Security Funds	<b>3609</b>
-	Local Governments	<b>3610</b>
-	Provincial Governments Extra-Budgetary Institutions	<b>3611</b>
-	Provincial Governments	<b>3612</b>
-	Non-Financial Public Corporations	<b>3613</b>
-	Financial Public Corporations	<b>3614</b>
-	Other institutions	<b>3615</b>
<u>3315.000</u>	Shares and other equity (public corporations)	<b>3616</b>
<u>3316.000</u>	Insurance technical reserves	<b>3617</b>
<u>3317.000</u>	Financial derivatives	<b>3618</b>
<u>3318.000</u>	Other accounts payable	<b>3619</b>
-	National Government Departments	<b>3620</b>
-	National Government Other Extra-Budgetary Institutions	<b>3621</b>
-	Universities	<b>3622</b>
-	Technicons	<b>3623</b>
-	Social Security Funds	<b>3624</b>
-	Local Governments	<b>3625</b>
-	Provincial Governments Extra-Budgetary Institutions	<b>3626</b>
-	Provincial Governments	<b>3627</b>
-	Non-Financial Public Corporations	<b>3628</b>
-	Financial Public Corporations	<b>3629</b>
-	Other institutions	<b>3630</b>
-	Unallocable domestic liabilities	<b>3631</b>
<u>332.000</u>	<b>Foreign</b>	3650
<u>3323.000</u>	Securities other than shares	<b>3652</b>
<u>3324.000</u>	Loans	<b>3653</b>
<u>3325.000</u>	Shares and other equity (public corporations)	<b>3654</b>
<u>3326.000</u>	Insurance technical reserves	<b>3655</b>
<u>3327.000</u>	Financial derivatives	<b>3656</b>
<u>3328.000</u>	Other accounts payable	<b>3657</b>
	Unallocable foreign liabilities	<b>3658</b>
	<b>Net change in currency &amp; deposits</b>	
32112.000	Acquisition of currency and deposits - domestic	<b>3502</b>
32122.000	Acquisition of currency and deposits - foreign	<b>3551</b>

3312.000	Incurrence of liabilities of currency and deposits - domestic	<b>3602</b>
3322.000	Incurrence of liabilities of currency and deposits - foreign	<b>3651</b>
NEW	<b>Net change in the stock of cash</b>	4400

### I.6.9. Bridging table

The Production, distribution and accumulation accounts for General government table in the national accounts provides a snapshot of all the flows to and from the government sector in a calendar year. The Government finance statistics of consolidated general government – Statement of sources and uses of cash table is a quarterly view of government’s netted out cash flows. Annual totals in the GFS table represents fiscal years whereas the NA table indicates calendar years. The GFS table is based on the cash principle whereas the NA table is compiled on the accrual principle. Items in both the NA and GFS table are reconciled with StatsSA publications (Financial statistics of consolidated general government, P9119.4) and will be equal on a fiscal year i.e. Compensation of employees and Taxes. Both the NA and GFS tables include:

- National government, Extra Budgetary institutions (including universities) and Social Security agencies.
- Provincial government
- Local government but the NA table also includes Local business enterprises.

Other key points to note are:

1. Social benefits contributions received by government’s social security agencies from households and corporations
2. The NA table does not include the item Grants. For the item “Grants” in the GFS table all grants between levels of government have been netted out. The figure in the table represents grants to and from foreign governments. The foreign grants are included in the total for miscellaneous transfers from government in the NA table (D75)
3. No corresponding item in NA table
4. The NA table includes compensation of local government enterprises whereas the GFA table does not.
5. Due to classification differences pertaining to capital transfers, miscellaneous transfers, subsidies etc, certain items may differ in the two tables i.e. items G11 and D31 and D39.
6. Social benefits paid by government’s social security agencies to households.
7. The item other expense (G14) in the GFS table refers to dividends paid, maintenance on buildings and miscellaneous running costs.
8. The items “Purchases of non-financial assets” (G16) and “Sales of non-financial assets” (G17) in the GFS table include purchases/sales of land which the corresponding item: Gross fixed capital formation (P51) in the NA table excludes.

Figure 0.6.6: South Africa – Bridge table

National Accounts table with account names and reference number						Current income and expenditure of general government						Government finance statistics of consolidated general government						
Production, distribution and accumulation accounts of South Africa						Bridging table						Statement of sources and uses of cash						
General government						General government												
At current prices						At current prices												
Ref		R/U/B	Time series in QB Table	Amount Rm 2008	Amount Rm 2009	Reference in NA table	Description	Reference in GFS table	Note	Amount Rm 2008	Amount Rm 2009	Test 2008 data	Test 2009 data	Ref	Description of aggregate	Time series in QB Table	Amount Rm Calendar 2008	Amount Rm Calendar 2009
I	Production account	R												G1	Net cash flow from operating activities	KBP4855K	74012	-42,800
P.1	Output at basic prices.....	R	NR16780J	557544	665,870									G2	Cash receipts from operating activities	KBP4856K	802925	800,416
P.2	less Intermediate consumption.....	U	NR16781J	239120	299,161									G3	Taxes	KBP4857K	650730	641,466
B.1	Gross value added at basic prices.....	B	NR16782J	318424	366,709		Taxes in GFS table	G3		650,730	641,466			G4	Social contributions	KBP4858K	14188	14,656
II.1.1	Generation of income account						represented by							G5	Grants	KBP4859K	1640	2,716
B.1g	Gross value added at basic prices.....	B	NR16782J	318,424	366,709		D5	Current taxes on income and wealth		361,781	387,634			G6	Other receipts	KBP4860K	136367	141,578
D.1	less Compensation of employees.....	U	NR16783J	273038	312,701		D21	plus Taxes on products		243,529	232,731							
D.29	less Taxes on production.....	U	NR16784J	3506	4,024		D29	plus Other taxes on production		36,252	42,038	9168	-20837					
D.39	Subsidies on production.....	R	NR16785J	1657	851			Social contributions in GFS table	G4	14,188	14,656			G7	Cash payments for operating activities	KBP4861K	728913	843,216
D.39	Gross operating surplus.....	B	NR16786J	43,537	50,835		D61	represented by	Note 1	14,189	14,656	-1	0	G8	Compensation of employees	KBP4862K	266981	309,851
II.1	Allocation of primary income account							Social Contributions		14,189	14,656			G9	Purchases of goods and services	KBP4863K	199646	257,475
B.2g	Gross operating surplus.....	B	NR16786J	43,537	50,835			Grants (received) in GFS table	G5	1,640	2,716			G10	Interest	KBP4864K	60474	61,492
D.21	Taxes on products.....	R	NR16603J	243529	232,731			represented by	Note 2					G11	Subsidies	KBP4865K	25211	24,123
D.29	Other taxes on production.....	R	NR16600J	36252	42,038		D74	Current International Co-operation		2,109	1,342			G12	Grants	KBP4866K	28058	27,648
D.31	less Subsidies on products.....	U	NR16604J	13657	13,361		D75	plus Miscellaneous current transfers		2,639	3,155	-3108	-1781	G13	Social benefits	KBP4867K	89229	102,021
D.39	less Other subsidies on production.....	U	NR16601J	10013	10,190			Other receipts in GFS table	G6	136,367	141,578			G14	Other expense	KBP4868K	593145	60,606
D.4	Property income received.....	R	NR16787J	20,452	18,780			represented by	Note 3									
D.41	Interest.....	R	NR16788J	18361	16,878			Compensation of employees in GFS table	G8	266,981	309,851			G15	Net cash flow from investment in non-financial assets	KBP4869K	-86203	-87,919
D.421	Dividends.....	R	NR16789J	1868	748			represented by	Note 4					G16	Purchases of non-financial assets	KBP4870K	86926	88,377
D.45	Rent.....	R	NR16790J	223	1,154		D1	Compensation of employees		273,038	312,701	-6057	-2850	G17	Sales of non-financial assets	KBP4871K	723	458
D.4	less Property income paid.....	U	NR16791J	62,835	85,909			Purchases of goods and services in GFS table	G9	199,646	257,475			G18	Cash surplus (+)/deficit (-)	KBP4872K	-12191	-130,719
D.41	Interest.....	U	NR16792J	62835	85,909			represented by						G19	Net cash from financing activities	KBP4873K	4751	99,477
B.5g	Gross balance of primary incomes.....	B	NR16793J	257,265	234,924			Included in Other goods and services in compilation of Final consumption expenditure by govt		428,852	505,469			G20	Net acquisition of financial assets other than cash	KBP4874K	-26263	-41,893
II.2	Secondary distribution of income account						P3	Subsidies in GFS table	G11	25,211	24,123			G21	Net incurrence of liabilities	KBP4875K	31013	141,371
B.5g	Gross balance of primary incomes.....	B	NR16793J	257,265	234,924			represented by	Note 5					G22	Domestic	KBP4876K	32278	131,803
D.5	Current taxes on income and wealth.....	R	NR16251J	361781	387,634			Subsidies on products		13,657	13,361	1541	572	G23	Foreign	KBP4877K	-1265	9,568
D.61	Social contributions.....	R	NR16794J	14189	14,656		D31	Subsidies on production		10,013	10,190			G24	Net change in stock of cash	KBP4878K	-7440	-31,242
D.7	Other current transfers.....	R	NR16795J	4748	4,497		D39	Grants (paid) in GFS table	G12	28,058	27,648							
D.74	Current international cooperation.....	R	NR16796J	2109	1,342			represented by	Note 2									
D.75	Miscellaneous current transfers.....	R	NR16767J	2639	3,155		D74	Current International Co-operation		26,489	27,172	1569	476					
D.62	less Social benefits.....	U	NR16798J	88466	101,834			Social benefits in GFS table	G13	89,229	102,021							
D.7	less Other current transfers.....	U	NR16799J	51660	53,391		D62	represented by	Note 6	88,466	101,834	763	187					
D.74	Current international cooperation.....	U	NR16800J	26489	27,172			Other expense in GFS table	G14	593,145	60,606							
D.75	Miscellaneous current transfers.....	U	NR16801J	25171	26,219			represented by	Note 7									
B.6g	Gross disposable income.....	B	NR16802J	497,857	486,486			Included in goods and services (part of Govt consumption expenditure)										
II.4.1	Use of disposable income account							Interest in GFS table	G10	60,474	61,492							
B.6g	Gross disposable income.....	B	NR16802J	497,857	486,486			represented by		44,474	69,031	-16200	7539					
P.3	less Final consumption expenditure.....	U	NR16008J	428,852	505,469		D41-D41	Net cash flow from investment in non financial assets	G15	4,751	99,477							
P.31	Individual consumption expenditure.....	U	NR16605J	139021	152,511			represented by										
P.32	Collective consumption expenditure.....	U	NR16606J	289831	352,958			Purchases of non-fin assets	G16	86,926	88,377							
B.8g	Gross saving.....	B	NR16803J	69,005	-18,983			minus sales of non financial assets	G17	723	458	-3234	-284					
K.1	less Consumption of fixed capital.....	U	NR16184J	44538	47,574			represented by		89,437	88,203							
B.8n	Net saving.....	B	NR16202J	24,467	-66,557			Gross fixed capital formation										
III.1	Capital account							Cash surplus (+)/deficit (-)	G18	-12,191	-130,719							
B.8n	Gross saving.....	B	NR16803J	69,005	-18,983			represented by		4,751	99,477							
D.9	Capital transfers, receivable.....	U	NR16804J	11213	15,119			Net cash from financing activities	G19									
D.9	Capital transfers, payable.....	U	NR16805J	-46223	-38,451			represented by										
P.51	Gross fixed capital formation.....	U	NR16100J	89437	88,203			Net acquisition of financial assets other than cash	G20	-26,263	-41,893							
P.52	Change in inventories.....	U	NR16175J	-499	267			Net incurrence of liabilities	G21	31,013	141,371							
B.9	Net lending (+)/net borrowing (-).....	B	NR16807J	-54,943	-130,785			Net change in stock of cash	G24	-7,440	-31,242							

# Annex I. Country case studies on the use of financial statements of financial corporations in national accounts

## II.1. Egypt – financial sector

The below tables represent the sequence of accounts for the financial sector in Egypt

Sequence of accounts of Financial Sector

Banks								
Resources		National accounts codes and description of terms of accounts				Code	Item	Value
Deposits*Interest rate	P.1	FISIM	Production account	4744	P-R		<b>Production account</b>	
Deposits*Reference rate	D.41	Property Income	Primary Distribution of Income Account	4744	P-R		<b>Resources</b>	
Loans*Interest rate	P.1	FISIM	Production account	5849	P-R	P.1	<b>Output</b>	2740
Loans*Reference rate	D.41	Property Income	Production account	5640	P-R	P.1	FISIM	2717
Imputed rent	P.1	FISIM	Primary Distribution of Income Account	5640	P-R	P.1	Actual output	23
Commissions	P.1	output	Production account	4028	P-R		<b>Uses</b>	
Another Bank Services	P.1	output	Production account	5	P-R	P.2	Intermediate consumption	108
Other subsidies on production	D.39	Subsidies	Production account	5	P-U	B.1G	Gross Value Added	2632
Distributed income of corporations (receivable)	D.42	Property Income	Production account	7	P-R	K.1	Consumption of fixed capital formation	3
Miscellaneous current transfers	D.75	Other Current transfers	Production account	11	P-R	B.1N	<b>Net Value Added</b>	2629
Consumption of fixed capital formation	K.1	Consumption of fixed capital formation	Capital account	3	C-R		<b>Generation of Income Account</b>	
Capital transfers receivable	D.9	Capital transfers	Capital account	4	C-R		<b>Resources</b>	
Uses						B.1N	Net Value Added	2629
Intermediate consumption	P.2	Intermediate consumption	Production account	103	P-U	D.3	Subsidies	30
1- Production Requirements of Commodity	P.2	Intermediate consumption	Production account	48	P-U	D.31	Subsidies on products	
Materials	P.2	Intermediate consumption	Production account	10	P-U	D.39	Other subsidies on production	30
Fuel, Oil and Driving Forces	P.2	Intermediate consumption	Production account	15	P-U		<b>Uses</b>	
Spare Parts	P.2	Intermediate consumption	Production account	8	P-U	D.1	Compensation of employees	39
Water and Electricity	P.2	Intermediate consumption	Production account	9	P-U	D.11	Wages and salaries	29
Other Commodity Supplies	P.2	Intermediate consumption	Production account	6	P-U	D.12	Employers social contribution	10
2-Production Requirement of Service	P.2	Intermediate consumption	Production account	55	P-U	D.2	Taxes on production and imports	12
Maintenance expenses	P.2	Intermediate consumption	Production account	6	P-U	D.21	Taxes on products	
Publishing , Advertising, Printing and Propaganda	P.2	Intermediate consumption	Production account	4	P-U	D.29	Other taxes on production	12
Transportation	P.2	Intermediate consumption	Production account	7	P-U	B.2N	<b>Net operating surplus</b>	2608
Communication	P.2	Intermediate consumption	Production account	12	P-U		<b>Primary Distribution of Income Account</b>	
Rental equipment,machinery and transportation	P.2	Intermediate consumption	Production account	0	P-U		<b>Resources</b>	
The Costs of Services Institutions	P.2	Intermediate consumption	Production account	8	P-U	B.2N	Net operating surplus	2608
The costs of training programs	P.2	Intermediate consumption	Production account	9	P-U	D.4	Property income	4864
Rents	P.2	Intermediate consumption	Production account	5	P-U	D.41	Interest	4744
Other Services Requirements	P.2	Intermediate consumption	Production account	4	P-U	D.42	Distributed income of corporations	120
Compensation of employees				39			<b>Uses</b>	
Wages and salaries				29		D.4	Property income	4118
In cash	D.11	Compensation of employees	Generation of Income Account	19	G-U	D.41	Interest	4028
In Kind	D.11	Compensation of employees	Generation of Income Account	10	G-U	D.42	Distributed income of corporations	90
Employers social contribution	D.12	Compensation of employees	Generation of Income Account	10	G-U	B.5N	<b>Balance of primary income / net</b>	3354
Other taxes on production	D.29	Taxes on production and imports	Generation of Income Account	12	G-U		<b>Secondary Distribution of Income Account</b>	
Distributed income of corporations (payable)	D.42	Property Income	Primary Distribution of Income Account	90	P-U		<b>Resources</b>	
Taxes on income	D.51	Current taxes on income and wealth	Secondary Distribution of Income Account	15	S-u	B.5N	Balance of primary income / net	3354
Non-life Insurance Premiums	D.71	Other Current transfers	Secondary Distribution of Income Account	2	S-u	D.7	Other Current transfers	9
Miscellaneous current transfers(payable)	D.75	Other Current transfers	Secondary Distribution of Income Account	8	S-u	D.71	Non-life Insurance Premiums	0
Gross fixed capital formation	P.51	Gross fixed capital formation	Capital account	75	C-u	D.72	Non-life Insurance Claims	
Buildings and Construction and Facilities	P.51	Gross fixed capital formation	Capital account	10	C-u	D.75	Miscellaneous current transfers	9
Machinery and Equipment	P.51	Gross fixed capital formation	Capital account	30	C-u		<b>Uses</b>	
Means of Transportation	P.51	Gross fixed capital formation	Capital account	15	C-u	D.5	Current taxes on income and wealth	15
Tools	P.51	Gross fixed capital formation	Capital account	7	C-u	D.51	Taxes on income	15
Furniture and equipment for offices	P.51	Gross fixed capital formation	Capital account	13	C-u	D.59	Other current taxes	0
Livestock	P.51	Gross fixed capital formation	Capital account	0	C-u	D.7	Other Current transfers	10
Changes in inventories	P.52	Changes in inventories	Capital account	0	C-U	D.71	Non-life Insurance Premiums	2
Capital transfers payable	D.9	Capital transfers payable	Capital account	6	C-U	D.72	Non-life Insurance Claims	
						D.75	Miscellaneous current transfers	8
						B.6N	<b>Net disposable income</b>	3338
							<b>Capital Account</b>	
							<b>Resources</b>	
						B.8N	Saving / Net (Net disposable income)	3338
						K.1	Consumption of fixed capital formation	3
						D.9	Capital transfers receivable	4
							<b>Uses</b>	
						P.51	Gross fixed capital formation	75
						D.9	Capital transfers payable	6
						P.52	Changes in inventories	10
						B.9	<b>Net Lending (+) Net borrowing (-)</b>	3254

# Sequence of accounts of Financial Sector

## Exchange

Resources					Code	Item	value
Seles of Foreign currency	P.1	output	Production account	6005	P-R		
Purchases of Foreign currency	P.1	output	Primary Distribution of Income Account	5000	P-R		
Stock from(Foreign currency at the end of the year - Foreign currency at the beginning of the year)	P.1	output	Production account	100	P-R	P.1	Output
Revenue from operating for others	P.1	output	Production account	2	P-R	P.1	Main output
Commissions	P.1	output	Primary Distribution of Income Account	3	P-R	P.1	Secondary output
Another revenue	P.1	output	Production account	1	P-R		Uses
Interest	D.41	Property Incom	Primary Distribution of Income Account	3	P-R	P.2	Intermediate consumption
Consumption of fixed capital formation	K.1	Consumption of fixed capital formation	Capital account	1	C-R	B.1G	Gross Value Added
						K.1	Consumption of fixed capital formation
						B.1N	Net Value Added
							Generation of Income Account
							Resources
						B.1N	Net Value Added
							Uses
						D.1	Compensation of employees
						D.11	Wages and salaries
						D.12	Employers social contribution
						D.2	Taxes on production and imports
						D.21	Taxes on products
						D.29	Other taxes on production
						B.2N	Net operating surplus
							Primary Distribution of Income Account
							Resources
						B.2N	Net operating surplus
						D.4	Property income
						D.41	Interest
						D.42	Distributed income of corporations
							Uses
						D.4	Property income
						D.41	Interest
						D.42	Distributed income of corporations
						B.5N	Balance of primary income / net
							Secondary Distribution of Income Account
							Resources
						B.5N	Balance of primary income / net
							Uses
						D.5	Current taxes on income and wealth
						D.51	Taxes on income
						D.59	Other current taxes
						D.7	Other Current transfers
						D.71	Non- life Insurance Premiums
						D.72	Non- life Insurance Claims
						D.75	Miscellaneous current transfers
						B.6N	Net disposable income
							Capital Account
							Resources
						B.8N	Saving / Net (Net disposable income)
						K.1	Consumption of fixed capital formation
							Uses
						P.51	Gross fixed capital formation
						P.52	Changes in inventories
						B.9	Net lending (+) Net borrowing (-)



# Sequence of accounts of Financial Sector

## Broke Rage

Resources						Code	Item	Value
Revenue from operating for others	P.1	output	Production account	280	P-R		<b>Production account</b>	
Commissions	P.1	output	Production account	940	P-R		<b>Resources</b>	
Another revenue	P.1	output	Production account	200	P-R	P.1	<b>Output</b>	1420
Interest	D.41	Property Income	Primary Distribution of Income Account	70	P-R		<b>Uses</b>	
Consumption of fixed capital formation	K.1	Consumption of fixed capital formation	Capital account	5	C-R	P.2	Intermediate consumption	39
Uses						B.1G	Gross Value Added	1381
Intermediate consumption	P.2	Intermediate consumption	Production account	39	P-U	K.1	Consumption of fixed capital formation	5
1- Production Requirements of Commodity				14		B.1N	<b>Net Value Added</b>	<b>1376</b>
Materials	P.2	Intermediate consumption	Production account	2	P-U		<b>Generation of Income Account</b>	
Fuel, Oil and Driving Forces	P.2	Intermediate consumption	Production account	6	P-U		<b>Resources</b>	
Spare Parts	P.2	Intermediate consumption	Production account	3	P-U	B.1N	Net Value Added	1376
Water and Electricity	P.2	Intermediate consumption	Production account	1	P-U		<b>Uses</b>	
Other Commodity Supplies	P.2	Intermediate consumption	Production account	2	P-U	D.1	Compensation of employees	23
2-Production Requirement of Service				25		D.11	Wages and salaries	20
Maintenance expenses	P.2	Intermediate consumption	Production account	1	P-U	D.12	Employers social contribution	3
Publishing , Advertising, Printing and Propaganda	P.2	Intermediate consumption	Production account	1	P-U	D.2	Taxes on production and imports	5
Transportation	P.2	Intermediate consumption	Production account	3	P-U	D.21	Taxes on products	
Communication	P.2	Intermediate consumption	Production account	5	P-U	D.29	Other taxes on production	5
Rental equipment,machinery and transportation	P.2	Intermediate consumption	Production account	0	P-U	B.2N	<b>Net operating surplus</b>	<b>1348</b>
The Costs of Services Institutions	P.2	Intermediate consumption	Production account	2	P-U		<b>Primary Distribution of Income Account</b>	
The costs of training programs	P.2	Intermediate consumption	Production account	4	P-U		<b>Resources</b>	
Rents	P.2	Intermediate consumption	Production account	5	P-U	B.2N	Net operating surplus	1348
Other Services Requirements	P.2	Intermediate consumption	Production account	4	P-U	D.4	Property income	70
Compensation of employees				23		D.41	Interest	70
Wages and salaries				20		D.42	Distributed income of corporations	
In cash	D.11	Compensation of employees	Generation of Income Account	12	G-U		<b>Uses</b>	
In Kind	D.11	Compensation of employees	Generation of Income Account	8	G-U	D.4	Property income	20
Employers social contribution	D.12	Compensation of employees	Generation of Income Account	3	G-U	D.41	Interest	
Other taxes on production	D.29	Taxes on production and imports	Generation of Income Account	5	G-U	D.42	Distributed income of corporations	20
Distributed income of corporations (payable)	D.42	Property Income	Primary Distribution of Income Account	20	P-U	B.5N	<b>Balance of primary income / net</b>	<b>1398</b>
Taxes on income	D.51	Current taxes on income and wealth	Secondary Distribution of Income Account	10	S-u		<b>Secondary Distribution of Income Account</b>	
Non-life Insurance Premiums	D.71	Other Current transfers	Secondary Distribution of Income Account	2	S-u		<b>Resources</b>	
Miscellaneous current transfers(payable)	D.75	Other Current transfers	Secondary Distribution of Income Account	5	S-u	B.5N	Balance of primary income / net	1398
Gross fixed capital formation	P.51	Gross fixed capital formation	Capital account	5	C-u		<b>Uses</b>	
Buildings and Construction and Facilities	P.51	Gross fixed capital formation	Capital account	0	C-u	D.5	Current taxes on income and wealth	10
Machinery and Equipment	P.51	Gross fixed capital formation	Capital account	2	C-u	D.51	Taxes on income	10
Means of Transportation	P.51	Gross fixed capital formation	Capital account	0	C-u	D.59	Other current taxes	
Tools	P.51	Gross fixed capital formation	Capital account	0	C-u	D.7	Other Current transfers	7
Furniture and equipment for offices	P.51	Gross fixed capital formation	Capital account	3	C-u	D.71	Non- life Insurance Premiums	2
Livestock	P.51	Gross fixed capital formation	Capital account	0	C-u	D.72	Non- life Insurance Claims	
Changes in inventories	P.52	Changes in inventories	Capital account	1	C-U	D.75	Miscellaneous current transfers	5
						B.6N	<b>Net disposable income</b>	<b>1381</b>
							<b>Capital Account</b>	
							<b>Resources</b>	
						B.8N	Saving / Net (Net disposable income)	1381
						K.1	Consumption of fixed capital formation	5
							<b>Uses</b>	
						P.51	Gross fixed capital formation	5
						P.52	Changes in inventories	1
						B.9	<b>Net Lending (+) Net borrowing (-)</b>	<b>1380</b>



Sequence of accounts of Financial Sector  
Insurance

<u>Resources</u>					Code	Item	Value
National accounts codes and description of terms of accounts							
Actual Premiums earned	P.1	output	Production account	120	P-R	<b>Production account</b>	
Premium Supplements	D.71	Premiums earned	Secondary Distribution of Income Account	128	S-R	<b>Resources</b>	
	P.1	output	Production account	8	P-R	P.1	output
	D.71	Premiums earned	Secondary Distribution of Income Account	8	S-R		217
Income from Investment of the Insurance technical	P.1	output	Production account	79	P-R		
	D.42	Property Income	Primary Distribution of Income Account	79	P-R	P.2	Intermediate consumption
Other revenue	P.1	output	Production account	50	P-R	B.1G	Gross Value Added
Receivable rent	P.1	output	Production account	1	P-R	K.1	Consumption of fixed capital formation
Imputed rent	P.1	output	Production account	4	P-R	B.1N	Net Value Added
	P.2	Intermediate consumption	Production account	4	P-U		178
Receivable interest	D.41	Property Income	Primary Distribution of Income Account	12	P-R	B.1N	Net Value Added
Imputed interest	D.41	Property Income(Receivable an	Primary Distribution of Income Account	23	P-R		178
Miscellaneous current transfers	D.75	Other Current transfers	Secondary Distribution of Income Account	3	S-R	D.1	Compensation of employees
Changes in Insurance Technical Reserves	D.8	Adjustment for the change in net equity of households in pension funds	Use of Disposable Income Account	2	U-R	D.11	Wages and salaries
Consumption of fixed capital formation	K.1	Consumption of fixed capital f	Capital account	2	C-R	D.12	Employers social contribution
Capital transfers receivable	D.9	Capital transfers	Capital account	7	C-R	D.2	Taxes on production and imports
							3
<u>Uses</u>							
Claims	P.1	output	Production account	78	P-U	D.21	Taxes on products
	D.72	Claims Payable	Secondary Distribution of Income Account	78	S-U	D.29	Other taxes on production
Intermediate consumption	P.2	Intermediate consumption	Production account	33	P-U	B.2N	Net operating surplus
1- Production Requirements of Commodity				15			152
Materials	P.2	Intermediate consumption	Production account	2	P-U	B.2N	Net operating surplus
Fuel, Oil and Driving Forces	P.2	Intermediate consumption	Production account	3	P-U	D.4	Property income
Spare Parts	P.2	Intermediate consumption	Production account	5	P-U	D.41	Interest
Water and Electricity	P.2	Intermediate consumption	Production account	4	P-U	D.42	Distributed income of corporations
Other Commodity Supplies	P.2	Intermediate consumption	Production account	1	P-U		79
2-Production Requirement of Service				18			
Maintenance expenses	P.2	Intermediate consumption	Production account	1	P-U	D.4	Property income
Publishing , Advertising, Printing and Propaganda	P.2	Intermediate consumption	Production account	2	P-U	D.41	Interest
Transportation	P.2	Intermediate consumption	Production account	1	P-U	D.42	Distributed income of corporations
Communication	P.2	Intermediate consumption	Production account	3	P-U	D.44	Property income attributed to insurance policyholders
Rental equipment,machinery and transportation	P.2	Intermediate consumption	Production account	2	P-U	B.5N	Balance of primary income / net
The Costs of Services Institutions	P.2	Intermediate consumption	Production account	1	P-U		146
The costs of training programs	P.2	Intermediate consumption	Production account	3	P-U		
Rents	P.2	Intermediate consumption	Production account	4	P-U	B.5N	Balance of primary income / net
Other Services Requirements	P.2	Intermediate consumption	Production account	1	P-U	D.7	Other Current transfers
Compensation of employees				23		D.71	Non- life Insurance Premiums
Wages and salaries				18		D.75	Miscellaneous current transfers
In cash	D.11	Compensation of employees	Generation of Income Account	10	G-U		3
In Kind	D.11	Compensation of employees	Generation of Income Account	8	G-U	D.5	Current taxes on income and wealth
Employers social contribution	D.12	Compensation of employees	Generation of Income Account	5	G-U	D.51	Taxes on income
Other taxes on production	D.29	Taxes on production and impo	Generation of Income Account	3	G-U	D.59	Other current taxes
Payable Interest	D.41	Property Income	Primary Distribution of Income Account	1	P-U	D.7	Other Current transfers
Imputed Interest	D.41	Property Income	Primary Distribution of Income Account	23	P-U	D.71	Non- life Insurance Premiums
Distributed income of corporations	D.42	Property Income	Primary Distribution of Income Account	6	P-U	D.72	Non- life Insurance Claims
Property income attributed to insurance policyholders	D.44	Property income attributed to insurance policyholders	Primary Distribution of Income Account	90	P-U	D.75	Miscellaneous current transfers
Taxes on income	D.51	Current taxes on income and v	Secondary Distribution of Income Account	7	S-u	B.6N	Net disposable income
Other Current transfers				8			262
Non-life Insurance Premiums	D.71	Other Current transfers	Secondary Distribution of Income Account	1	S-u		
Non-life Insurance Claims	D.72	Other Current transfers	Secondary Distribution of Income Account	5	S-u	B.6N	Net disposable income
Miscellaneous current transfers (payable)	D.75	Other Current transfers	Secondary Distribution of Income Account	2	S-u	D.8	Adjustment for the change in net equity of households in
Gross fixed capital formation	P.51	Gross fixed capital formation	Capital account	32	C-U	B.8n	Saving / Net
Buildings and Construction and Facilities	P.51	Gross fixed capital formation	Capital account	5	C-u		264
Machinery and Equipment	P.51	Gross fixed capital formation	Capital account	10	C-u	B.8N	Saving / Net
Means of Transportation	P.51	Gross fixed capital formation	Capital account	6	C-u	K.1	Consumption of fixed capital formation
Tools	P.51	Gross fixed capital formation	Capital account	3	C-u	D.9	Capital transfers receivable
Furniture and equipment for offices	P.51	Gross fixed capital formation	Capital account	8	C-u		7
Livestock	P.51	Gross fixed capital formation	Capital account	0	C-u		
Changes in inventories	P.52	Changes in inventories	Capital account	4	C-U	P.51	Gross fixed capital formation
Capital transfers payable	D.9	Capital transfers payable	Capital account	2	C-U	P.52	Changes in inventories
						D.9	Capital transfers payable
						B.9	Net Lending(4) Net borrowing (-)
							235

Sequence of accounts of Financial Sector

Social solidarity

<u>Resources</u>	National accounts codes and description of terms of accounts				
Premiums earned	P.1	output	Production account	1259	P-R
	D.61	Social contribution	Secondary Distribution of Income Account	1259	S-R
Income from Investment of the Insurance technical reserves	P.1	output	Production account	396	P-R
	D.41	Property Income	Primary Distribution of Income Account	396	P-R
Distributed income of corporations(receivable)	P.1	output	Production account	578	P-R
	D.42	Property Income	Primary Distribution of Income Account	578	P-R
Receivable rent	P.1	output	Production account	2	P-R
Miscellaneous current transfers	D.75	Other Current transfers	Secondary Distribution of Income Account	10	S-R
Changes in Insurance Technical Reserves	D.8	Adjustment for the change in net equity of households in pension funds	Use of Disposable Income Account	37	U-R
Consumption of fixed capital formation	K.1	Consumption of fixed capital formation	Capital account	2	C-R
<u>Uses</u>					
Claims	P.1	output	Production account	1048	P-U
	D.62	Social benefits other than social transfer in kind	Secondary Distribution of Income Account	1048	S-U
Intermediate consumption	P.2	Intermediate consumption	Production account	20	P-U
1- Production Requirements of Commodity				6	
Materials	P.2	Intermediate consumption	Production account	0	P-U
Fuel, Oil and Driving Forces	P.2	Intermediate consumption	Production account	2	P-U
Spare Parts	P.2	Intermediate consumption	Production account	1	P-U
Water and Electricity	P.2	Intermediate consumption	Production account	2	P-U
Other Commodity Supplies	P.2	Intermediate consumption	Production account	1	P-U
2-Production Requirement of Service				14	
Maintenance expenses	P.2	Intermediate consumption	Production account	1	P-U
Publishing , Advertising, Printing and Propaganda	P.2	Intermediate consumption	Production account	2	P-U
Transportation	P.2	Intermediate consumption	Production account	1	P-U
Communication	P.2	Intermediate consumption	Production account	3	P-U
Rental equipment,machinery and transportations	P.2	Intermediate consumption	Production account	2	P-U
The Costs of Services Institutions	P.2	Intermediate consumption	Production account	1	P-U
The costs of training programs	P.2	Intermediate consumption	Production account	1	P-U
Rents	P.2	Intermediate consumption	Production account	2	P-U
Other Services Requirements	P.2	Intermediate consumption	Production account	1	P-U
Compensation of employees				32	
Wages and salaries				24	
In cash	D.11	Compensation of employees	Generation of Income Account	13	G-U
In Kind	D.11	Compensation of employees	Generation of Income Account	11	G-U
Employers social contribution	D.12	Compensation of employees	Generation of Income Account	8	G-U
Other taxes on production	D.29	Taxes on production and imports	Generation of Income Account	1	G-U
Payable Interest	D.41	Interest	Primary Distribution of Income Account	2	P-U
Property income attributed to insurance policyholders	D.44	Property income attributed to insurance policyholders	Primary Distribution of Income Account	972	P-U
Gross fixed capital formation	P.51	Gross fixed capital formation	Capital account	12	C-U
Buildings and Construction and Facilities	P.51	Gross fixed capital formation	Capital account	3	C-U
Machinery and Equipment	P.51	Gross fixed capital formation	Capital account	2	C-U
Means of Transportation	P.51	Gross fixed capital formation	Capital account	4	C-U
Tools	P.51	Gross fixed capital formation	Capital account	1	C-U
Furniture and equipment for offices	P.51	Gross fixed capital formation	Capital account	2	C-U
Livestock	P.51	Gross fixed capital formation	Capital account	0	C-U
Changes in inventories	P.52	Changes in inventories	Capital account	1	C-U

Code	Item	Value
	<b>Production account</b>	
	<b>Resources</b>	
P.1	output	1150
	<b>Uses</b>	
P.2	Intermediate consumption	20
B.1G	Gross Value Added	1130
K.1	Consumption of fixed capital formation	2
B.1N	Net Value Added	1128
	<b>Generation of Income Account</b>	
	<b>Resources</b>	
B.1N	Net Value Added	1128
	<b>Uses</b>	
D.11	Compensation of employees	32
D.12	Wages and salaries	24
D.2	Employers social contribution	8
D.21	Taxes on production and imports	1
D.29	Taxes on products	1
B.2N	Other taxes on production	1
	Net operating surplus	1095
	<b>Primary Distribution of Income Account</b>	
	<b>Resources</b>	
B.2N	Net operating surplus	1095
D.4	Property income	974
D.41	Interest	396
D.42	Distributed income of corporations	578
	<b>Uses</b>	
D.4	Property income	974
D.41	Interest	2
D.42	Distributed income of corporations	0
D.44	Property income attributed to insurance policyholders	972
B.5N	Balance of primary income / net	1095
	<b>Secondary Distribution of Income Account</b>	
	<b>Resources</b>	
B.5N	Balance of primary income / net	1095
D.61	Social contribution	1259
D.7	Other Current transfers	10
D.75	Miscellaneous current transfers	10
	<b>Uses</b>	
D.62	Social benefits other than social transfer in kind	1048
B.6N	Net disposable income	1316
	<b>Use of Disposable Income Account</b>	
	<b>Resources</b>	
B.6N	Net disposable income	1316
D.8	Adjustment for the change in net equity of households in pension funds	37
B.8n	Saving / Net	1353
	<b>Capital Account</b>	
	<b>Resources</b>	
B.8N	Saving / Net	1353
K.1	Consumption of fixed capital formation	2
	<b>Uses</b>	
P.51	Gross fixed capital formation	12
P.52	Changes in inventories	1
B.9	Net Lending (+) Net borrowing (-)	1342

## II.2. Niger – financial sector

Financial enterprises provide banking and insurance services.

In Niger, Central Bank accounts are not integrated in the compilation of the GDP. Despite multiple actions undertaken by the NIS to obtain the accounting data of the National Agency of the Central Bank of West African States for Niger, no progress has been made yet.

Regarding commercial banks, output of banking services include banking commissions and financial intermediation services that are measured by the difference between the interest received and paid. The consumption of financial intermediation services is attributed to a fictive branch. In the case of these banks, the individual documents are collected by the NIS each year, often, with considerable delay. The bridging method is attached. It should be noted, however, that the accounting documents are not always presented in the same way, and they are not detailed – for example, the data on loans by activity, which could help in allocating FISIM to activities. In addition, a large part of micro finance companies do not reply or only reply with the partial statistical information. For all these reasons, the accounts are adjusted for non-responses with the help of certain tendency indicators or with the average of group of units to which the non-responding units belong.

The accounting documents of insurance companies are collected directly by the NIS from the companies. Insurance production is estimated on the basis of premiums obtained, net revenues from the placement of reserves, claims due, and the variation in the life insurance reserves. Here as well, there are non-responses and we proceed the same way as with the commercial banks.

It should be noted that the Ministry of Finance is a precious source for accounting information on financial enterprises, even though the documents arrive at NIS with some delay. They have the advantage of providing an exhaustive global picture of financial enterprises that helps in recalculating estimates or to make some global adjustments.

Figure II.2.1 Niger – Concordance table for insurance corporations

Operation	Code	Concordance with national accounts
Gross premiums	OP100A	Commodity production
Premiums ceded	OP2	Intermediate consumption
Net premiums	OD7001	Net non-life insurance premiums
Investment income	OP100A	Commodity production
Other products	OP100A	Commodity production
Windfall profits	OD4002002	Income from quasi-corporations
Benefits or gross claims	OP100A	Commodity production
Ceded	OP2	Intermediate consumption
Commissions paid	OP2	Intermediate consumption
Supplies consumed	OP2	Intermediate consumption
Transport and travel	OP2	Intermediate consumption
Electricity, water	OP2	Intermediate consumption
Banks	OP2	Intermediate consumption
Construction	OP2	Intermediate consumption
Communications	OP2	Intermediate consumption
Maintenance repa.	OP2	Intermediate consumption
Rental charges	OP2	Intermediate consumption
Advertising	OP2	Intermediate consumption

Operation	Code	Concordance with national accounts
Education, training	OP2	Intermediate consumption
Other svcs consolidated.	OP2	Intermediate consumption
Gross wages	OD100100A	Gross wages
Contributions	OD100100A	Gross wages
Taxes	OD200E	Other taxes on production
TCDV	OD7005	Other misc. current transfers
TCDR	OD7005	Other misc. current transfers
Investment expenses	OP2	Intermediate consumption
Current taxes on income	OD5001	Taxes on income
Exceptional losses	OD4002002	Income from quasi-corporations
Net assets	P51	Gross fixed capital formation
Workforce	OE1001001	Number of employees

Figure II.2.2: Niger – Concordance table for banks

Section	ID	Concordance with national accounts
Interest received	OD4001	Interests
Interest paid	OD4001	Interests
Dividends received	OD4002001	Dividends
Commissions received	OP100A	Commodity production
Exchange products	OP100A	Commodity production
Other productions	OP100A	Commodity production
Supplies consolidated.	OP2	Intermediate consumption
Transport consolidated.	OP2	Intermediate consumption
Electricity, water	OP2	Intermediate consumption
Banks	OP2	Intermediate consumption
Construction	OP2	Intermediate consumption
Insurance premiums	OP2	Intermediate consumption
Communications	OP2	Intermediate consumption
Maintenance repa.	OP2	Intermediate consumption
Rental charges	OP2	Intermediate consumption
Advertising	OP2	Intermediate consumption
Educ, training	OP2	Intermediate consumption
Other svcs consolidated.	OP2	Intermediate consumption
Losses	OP2	Intermediate consumption
Commissions paid	OP2	Intermediate consumption
Gross wages	OD100100A	Gross wages
Contributions	OD1002001	Actual social contributions paid by employers
Taxes on prod.	OD200E	Other taxes on production
Tcd received	OD7005	Other misc. current transfers
Current taxes	OD5001	Taxes on income
Tcd paid	OD7005	Other misc. current transfers
Income paid	OD4002	Income distributed by companies
Var. real estate. net	P51	Gross fixed capital formation
FISIM	OD400A	FISIM
Effective employees	OE1001001	Number of employees
FISIM	OP100A	Commodity production

## **II.3. Senegal – financial sector**

### **II.3.1. Introduction**

One of the main functions of the National Agency of Statistics and Demography (ANSD) is the compilation of national accounts. Every year, the ANSD produces provisional national accounts for of the year (n-1), semi-final accounts for the year (n-2) and final accounts for the year (n-3).

The System of National Accounts 1993 (1993 SNA) serves as a reference for the development of national accounts in Senegal. Volume accounts are produced on base year 1999.

Among the areas covered in national accounts is the financial sector, comprising the activities of banks and financial institutions, microfinance companies, insurance companies and financial auxiliaries.

This paper describes the procedure used in Senegal for preparing the financial statements of the public sector including the banking industry (excluding the central bank) and the insurance industry. The paper is structured as follows: the first part presents the data sources, the second focuses on the structure of accounts and estimates, the third summarizes the concordance between the accounting classifications and the National Accounts, the fourth focuses on the preparation of accounts of these two sub-sectors and the last presents difficulties encountered in compiling national accounts for these sub-sectors.

### **II.3.2. Data sources**

The data used to prepare the accounts of the financial sector comes mainly from the National Directorate of the Central Bank of the States of West Africa (BCEAO) in Senegal and Departments of the Ministry of Economy and Finance this country. BCEAO collects statistics on commercial banks and financial institutions. This institution is responsible for consolidating the data of banks and financial institutions.

The Department of Regulation and Supervision of Microfinance Institutions (DRS-SFD) and the Insurance Department of the Ministry of Economy and Finance collect and consolidate respectively, the statistics for microfinance institutions and insurance companies. ANSD collects the information needed to produce accounts of the financial sector, electronically. To facilitate data sharing, these data source agencies have established focal points.

### **II.3.3. Accounting structure**

The consolidated accounts of banks and financial institutions and microfinance institutions consist of two main sections: the income and expenses on cash transactions and interbank transactions with customers, securities transactions and other data on leases and similar transactions, other operations.

Treasury operations and interbank summarised data provide information on interest earned on transactions with the Treasury and banks. Specifically, the data includes interest on overdrafts and other deposit accounts receivable, those obtained on loan accounts, bad and doubtful debts and other interest. Data on transactions with customers shows interest on loans, the bad and doubtful debts and other interest. Data on investment income and commissions is available from trading in securities and other operations. Data on leasing, hire-purchase and other operations

provides income details. From these data on interest incomes, interest on bad and doubtful debts is deducted. Information on costs associated and income earned with regard to other foreign exchange transactions and other miscellaneous financial services is separately available. Data provided by the source agency also includes statistics on transactions in financial assets, capitalized production, purchases and sales of goods and changes in inventories of goods, besides the overhead expenses such as staff costs, taxes and fees and similar payments, field service and operating expenses.

Data from the Department of Insurance include items from current and capital accounts of life and non-life insurance, consolidated into a single accounting document. This document shows revenue (credit) and expenses (debit) that are related to transactions between insurers and policyholders. Data on expenses includes services and related expenses, net claims expenses net of appeals and life benefits, commissions, personnel costs, taxes and fees, other expenses related to the work and services outside, management fees and investment expenses. Data on incomes includes premiums and earned premiums during the year, investment income, operating subsidies and other incomes.

#### **II.3.4. Bridge tables**

The accounts of banks, microfinance institutions and insurance are presented according to the classifications of the financial system operations. Correspondence tables have been established for all sub-sectors to convert the source data to national accounts. The establishment of these transition tables required knowledge of the content of the various items presented in the accounting statements. Depending on the use made, the position is classified in a section of the nomenclature of operations of National Accounting. As an illustration, the charges related to payments of rent, maintenance and repairs are recorded as intermediate consumption because they are within the production process of a financial service. Interest received or paid items are codified under FISIM. The various bridge tables are appended to the document.

#### **II.3.5. Preparation of accounts for banking and insurance companies**

*Output of financial companies including banks, microfinance institutions and insurance companies*

##### **Calculating the output of banks and financial institutions**

The output of banks and financial institutions consists of FISIM and other income on services. FISIM is obtained as the difference between interest received and paid. Interest receipts consist of revenues over cash transactions and interbank transactions with customers. Specifically, they consist of interest income on ordinary deposit accounts and loans receivable and other interest on treasury operations and other banks. Other data includes interest on customer loans, interest on factoring and other interests obtained from customers. The table below gives an example of calculation of financial intermediation services indirectly measured (FISIM) for the years 2010 and 2011.

Figure II.3.1 Senegal –Calculation of FISIM banks and financial institutions 2010-11 (in million FCFA)

Year	2010	2011
Interest received (1)	144,348	160,409
<i>PRODUCTS OP. DE TRESO. AND Interbanc.</i>	3,345	3,114
<i>PRODUCTS ON TRANSACTIONS WITH GUESTS</i>	141,003	157,295
Interest paid (2)	53,915	56,384
<i>CHARGES ON OP. DE TRESO. AND Interbanc.</i>	9,432	10,935
<i>CHARGES ON TRANSACTIONS WITH GUESTS</i>	44,483	45,449
FISIM (1) - (2)	90,433	104,025

Source: ANSD / BCEAO

Income from services consists of commissions received on transactions with banks, customers and securities and investments and other services. Added to this is the income on securities investments, and other operations.

Figure II.3.2 Senegal – Calculation of output of service for banks and financial institutions (million FCFA)

Year	2010	2011
Commissions	46,330	57,430
Product on financial investments	24,029	29,120
Other products	15,417	23,330
Output of services	85,776	109,880

Source: ANSD / BCEAO

### Calculation of production of Microfinance Institutions (MFIs)

Regarding the decentralized financial system, production is also evaluated by summing the FISIM and services. FISIM is equal to the difference between interest received and dividends paid to microfinance institutions. The various components of income and expense as interest are identical to those of banks and financial institutions.

Figure II.3.3 Senegal – Senegal –Calculation of FISIM DFS (million FCFA)

Year	2010	2011
Interest received (1)	29,339	34,075
<i>PRODUCTS OP. DE TRESO. AND Interbanc.</i>	1,196	1,142
<i>PRODUCTS ON TRANSACTIONS WITH GUESTS</i>	28,143	32,933
Interest paid (2)	6,527	5,820
<i>CHARGES ON OP. DE TRESO. AND Interbanc.</i>	4,598	2,882
<i>CHARGES ON TRANSACTIONS WITH GUESTS</i>	1,929	2,938
FISIM (1) - (2)	22,812	28,255

Source: ANSD / DRS-SFD

The services consist of other financial products and various products. These consist primarily of commissions received, revenues and profits as an investment on various operations on financial assets, rents received and other products.

Figure II.3.4: Senegal – Calculation of the production service delivery DFS (million FCFA)

Year	2010	2011
Commissions	9,441	12,201
Product on financial investments	82	9
Other products	422	305
Production service delivery	9,946	12,516



### Calculation of the output of insurance companies

Regarding insurance, output is obtained by the sum of gross premiums earned for the year and products on investment property, securities and other products that are reduced claims expenses and those related to investment properties.

Figure II.3.5: Senegal – Production of insurance (million FCFA)

Year	2010	2011
Output	91,245	85,912
<i>Earned premium</i>	83,397	77,149
<i>Other output</i>	7,849	8,762

Source: ANSD / DRS-SFD

Production of the financial sector (excluding Central Bank and financial auxiliaries) is obtained by aggregating the outputs of these three sub-sectors.

Figure II.3.6 Senegal – Production of the financial sector (millions FCFA)

Year	2010	2011
Production banking sector	300,212	340,588
Banks and financial institutions	176,209	213,905
Decentralized financial systems	32,758	40,771
Insurance	91,245	85,912

Source: ANSD / DRS-SFD

### *Intermediate consumption of financial corporations (excluding Central Bank and financial auxiliaries)*

Intermediate consumption of banks and financial institutions and microfinance institutions include all goods and services consumed in the production process. They are obtained by summing the commissions paid by the units, the charges on securities investments, the various operations on lease, and the lease transactions with option to buy and lease sales charges on financial services and banking operations and field services. External services include expenses in rent expense, those relating to repairs and maintenance, education and research, to pay staff from outside the establishment, remuneration of intermediaries and fees, costs of advertising, publications and public relations, transport of goods and personnel, mission expenses and receptions, postage and telecommunications, non-stocked materials and supplies and other miscellaneous expenses purchases.

For insurance companies, intermediate consumption takes into account the commissions, costs of works, supplies and external services, transport and travel, the various management fees, interest expense on securities and other securities.

Figure II.3.7 Senegal – Intermediate consumption of financial companies (in millions of CFA francs)

Year	2010	2011
Intermediate consumption	100,931	117,735
<i>Banks and financial institutions</i>	67,999	80,775
<i>SFD</i>	11,412	15,037
<i>Insurance</i>	21,520	21,923



Source: ANSD

The value added of the financial sector is achieved by deducting intermediate inputs from the gross output. This value added is distributed as wages paid to employees, and taxes on production. Salaries are divided into effective salary (including allowances paid to staff and trainees) and social contribution. However, the consolidated statement of banks and financial institutions do not distinguish the two and provided overall personnel costs. For the break-up, the structure of 2005 (the last year the breakdown is available) is used for other years to distribute wages between effective compensation and social contribution.

Figure II.3.8: Value-added financial corporations, excluding central bank and financial auxiliaries (millions FCFA)

Year	2010	2011
<b>Value added</b>	<b>199,281</b>	<b>222,853</b>
<i>Salaries</i>	<i>70,199</i>	<i>79,063</i>
<i>Taxes on production</i>	<i>7,959</i>	<i>8,360</i>

Source: ANSD

### II.3.6. Some difficulties encountered

One of the difficulties the national accounts team faces is the instability of the nomenclatures used by financial companies including MFIs that have changed repeatedly the presentation formats. Following these changes, some items may disappear while others appear and their links with national accounts are not easily identifiable. This also makes comparisons difficult over the years.

### II.3.7. Examples for bridge tables

The below tables are examples for bridging financial corporations' accounts to national accounts.

Figure II.3.9 Senegal – Concordance table for banks and financial institutions

SNA code		Description
	<b>1.</b>	<b>BANKING PRODUCTS</b>
	<b>V08</b>	<b>PRODUCTS OP. DE TRESO. AND Interbanc.</b>
D.41/P.11	V1A	Interest on overdrafts
D.41/P.11	V1L	Interest on other deposit accounts receivable
D.41/P.11	V2A	Interest on loan accounts
D.41/P.11	V2P	Interest on loans & contentious
D.41/P.11	V2Q	other interest
P.11	V2T	commissions
	<b>V3A</b>	<b>PRODUCTS ON TRANSACTIONS WITH GUESTS</b>
D.41/P.11	V3B	Interest on loans to customers
D.41/P.11	V3P	Interest on factoring
D.41/P.11	V3Q	Interest on loans & contentious
D.41/P.11	V3R	other interest
P.11	V3X	commissions
	<b>V4B</b>	<b>PRODUCTS OP. SECURITIES AND OTHER</b>
P.11	V4C	Income from securities
P.11	V4E	Products on various operations

SNA code		Description
	V4F	commissions
	<b>V5G</b>	PRODUCTS ON LEASING & OP. TREATED
P.11	V5H	Income from leasing operations
P.11	V5N	Gains on operating lease with option to purchase
P.11	V5T	Gains on operating lease
		OTHER PRODUCTS
	V6A	Products on foreign exchange transactions
	V6F	Income from operations of Off-Balance Sheet
P.11	V6U	Income from financial services
P.11	V7A	Other banking products
		DEDUCTION OF interests / RECEIVABLES suff.
	-V2P	Interest on loans & contentious
	-V3Q	Interest on loans & contentious
	<b>2.</b>	BANK CHARGES
	<b>R08</b>	CHARGES ON OP. DE TRESO. AND Interbanc.
D.41/P.11	R1A	Interest on current accounts
D.41/P.11	R1L	Interest on other deposits accounts payable
D.41/P.11	R2A	Interest on loan accounts
D.41/P.11	R2R	other interest
P.2	R2Z	commissions
	<b>R3A</b>	CHARGES ON TRANSACTIONS WITH GUESTS
D.41/P.11	R3C	Interest on customer accounts
D.41/P.11	R3M	Interest on factoring accounts
D.41/P.11	R3N	Interest on loans to customers
D.41/P.11	R3P	Interest or other amounts due
D.41/P.11	R3Q	other interest
P.2	R3T	commissions
	<b>R4B</b>	CHARGES ON OP. SECURITIES AND OTHER
P.2	R4C	Charges on investment securities
D.41/P.11	R4D	Interests and charges assimilated on debt securities in issue
P.2	R4K	Loads on various operations
P.2	R4N	commissions
	<b>R5E</b>	CHARGES ON LEASING & OP. TREATED
P.2	R5G	Expenses on leasing
P.2	R5M	Expenses on hire-purchase
P.2	R5S	Expenses on hire purchase
		OTHER CHARGES
	R6A	Charges on foreign exchange transactions
	R6F	Expenses arising from off-balance sheet
P.2	R6V	Expenses on financial services
P.2	R7A	Other banking expenses
	<b>3.</b>	NET BANKING or FINANCIAL (1-2)
	<b>4.</b>	NET ACCESSORIES
P.11	V5B	PRODUCTS ON FINANCIAL ASSETS
	W4A	OTHER OPERATING INCOME
	W50	ASSETS PRODUCED
	V8B	COMMERCIAL LINES
	V8C	SALE OF GOODS

SNA code		Description
	V8D	CHANGES IN INVENTORIES OF GOODS
P.2	R5B	CHARGES ON FINANCIAL ASSETS
	R8G	PURCHASING GOODS
	R8J	STOCKS SOLD
	R8L	CHANGES IN INVENTORIES OF GOODS
	5.	OVERALL OPERATING REVENUES (3 + 4)
	6.	GENERAL EXPENSES
D.11	S02	STAFF COSTS
D/29	S1A	TAXES AND PAYMENTS RELATED
	S2A	OTHER EXPENSES EXT. CHARGES & DIV. D'EXPL.
P.2	S2B	Field Services
P.2	S3A	Other external services
P.2	S4A	Various operating expenses
	7.	Amort. & PROV. IMMO ON NET. (+ T51-X51)
	T51	DEPRECIATION AMORT. & PROV. IMMO ON.
	X51	WITHDRAWAL OF AMORT. & PROV. IMMO ON.
	8.	GROSS OPERATING INCOME (5 - 6 - 7)
	9.	PROV. NET ON RISK (+ + T6B-X6B X6J)
	T6B	DOT. TO PROV. & LOSSES CR. IRRECUP.
	(X6B-X6J)	BACK OF PROVISIONS (except X6J)
	10.	REINTEGRAT ° interests ON RECEIVABLES suff.
	V2P	Interest on loans & contentious
	V3Q	Interest on loans & contentious
	11.	OPERATING INCOME (8-9 + 10)
	12.	EXCEPTIONAL INCOME NET
	W53	OPERATING GRANTS
	X6J	RECOVERED ON CLAIMS AMORTIZED
	X80	EXTRAORDINARY
	X50	TIMES OF RISK FOR BENCH FDS. GNRX
	T50	DEPRECIATION OF RISK FOR BENCH FDS. GNRX
	R5Y	LOADS OF SHAREHOLDERS CPTES BLOCKED
	T80	EXCEPTIONAL COSTS
	13.	RESULT ON PRIOR YEARS (X81 - T81)
	X81	PROFITS ON PRIOR YEARS
	T81	LOSSES ON PRIOR YEARS
	14.	TAX BENEFIT (T82)
	15.	NET (11 + 12 + 13 to 14)

Figure II.3.10 Senegal – Concordance table for decentralized financial systems

SNA code		Description of items in DFS
	<b>R08</b>	CHARGES ON OPERATION WITH FINANCIAL INSTITUTIONS
D.41/P.11	<b>R1A</b>	Interest on ordinary account payables
	R1B	financial agency
	R1C	Caisse centrale
	R1D	Treasury
	R1E	CCP
	R1F	Banks and correspondents

SNA code		Description of items in DFS
	R1H	financial Institutions
	R1I	SFD
	R1K	Other financial institutions
D.41/P.11	<b>R1L</b>	Interest payable on ordinary account payables deposits
	R1N	Term deposits received
	R1P	Deposits of collateral received
	R1Q	Other deposits received
D.41/P.11	<b>R2A</b>	Interest on borrowings accounts
	R2F	Interests on loans less than a year
	R2G	Of interest on term loans
D.41/P.11	<b>R2R</b>	other Interests
	R2T	various Interests
P.2	R2Z	commissions
	<b>R3A</b>	CHARGES ON TRANSACTIONS WITH MEMBERS, CUSTOMERS OR BENEFICIARIES
D.41/P.11	<b>R3C</b>	Interest on accounts of members, beneficiaries or clients
	R3D	Interest on ordinary account payables
	R3F	Interest on term deposits received
	R3G	Interest on savings of a special system accounts
	R3H	Interest on deposits received
	R3J	Interest on other deposits received
	R3N	Interest on borrowings and other amounts due
D.41/P.11	<b>R3Q</b>	other Interests
P.2	R3T	commissions
	<b>R4B</b>	CHARGES ON SECURITIES TRANSACTIONS AND OTHER OPERATIONS
	R4C	Charges and losses on investment securities
	R4K	Loads on various operations
P.2	R4N	commissions
	<b>R5B</b>	CHARGES ON FINANCIAL ASSETS
P.2	<b>R5C</b>	Sales charges
	<b>R5D</b>	Spreading the premium
	<b>R5E</b>	CHARGES ON CREDIT TRANSACTIONS RELATED LEASE and
	<b>R5G</b>	Charges on credit lease transaction
	R5H	Depreciation
	R5J	Additions to provisions
	R5K	Capital loss
P.2	R5L	other expenses
	<b>R5M</b>	Expenses on lease with option to purchase
	R5N	Depreciation
	R5P	Additions to provisions
	R5Q	Capital loss
P.2	R5R	other expenses
	<b>R5S</b>	Charges on lease transaction _ sale
	R5T	Depreciation
	R5U	Additions to provisions
	R5V	Capital loss
P.2	R5X	other expenses
	<b>R5Y</b>	Cost of borrowings and issued as subordinated
	<b>R6A</b>	CHARGES ON EXCHANGE OPERATIONS

SNA code		Description of items in DFS
	<b>R6B</b>	Losses on foreign exchange
P.2	R6C	commission
	<b>R6F</b>	CHARGES ON OFF-BALANCE SHEET
	R6K	Charges on financing commitments received from financial institutions
	R6L	Charges on financing commitments received from customers or members beneficiaries
	R6M	Charges on guarantee commitments received financial institutions
	R6P	Charges on guarantee commitments received from customers or members beneficiaries
	<b>R6S</b>	Charges on securities commitments
	<b>R6T</b>	Charges on other commitments received
	<b>R6V</b>	CHARGES ON PROVISION OF FINANCIAL SERVICES
P.2	<b>R6W</b>	Charges on payment
P.2	<b>R6X</b>	Other expenses on financial services
	<b>R7A</b>	OTHER FINANCIAL OPERATING EXPENSES
	R7B	Less disposal of asset items
	R7C	Transfers of financial products operations
	R7D	Diverse Financial abuse charges
	<b>CAVS</b>	SHOPPING AND CHANGES IN STOCKS
	<b>R8G</b>	Purchases of goods
	R8J	inventory sold
	R8L	Changes in inventories
	CCGE	GENERAL OPERATING EXPENSES
	<b>S02</b>	STAFF COSTS
D.11	S03	Wages and salaries
D.12	S04	social charges
D.11	S05	Average earnings paid to the trainee
D.29	<b>S1A</b>	TAXES
	<b>S1B</b>	Taxes and assimilated payments on compensation
	<b>S1C</b>	Other taxes and levies assimilated verses al Tax Administration
	S1D	direct taxes
	S1G	indirect taxes
	S1H	Registration fees and stamp
	S1J	Other taxes
	<b>S1K</b>	Other taxes and levies verses assimilated to other agencies
	<b>S2A</b>	OTHER EXTERNAL COSTS AND EXPENSES MISCELLANEOUS EXLPOITATION
P.2	<b>S2B</b>	Field Services
	S2C	Leasing charges
	S2D	rents
	S2F	Charges and Co-ownership
	S2H	Maintenance and repairs
	S2J	Insurance premiums of
	S2K	Studies and research
	S2M	Costs for staff training
	S2L	various
P.2	<b>S3A</b>	Other external services
	S3B	Outside the institution staff
	S3C	Remuneration of intermediaries and fees
	S3E	Advertising, Publications and Public Relations

SNA code		Description of items in DFS
	S3G	Transport of goods
	S3J	public transport staff
	S3L	Travel, missions and receptions
	S3M	Not stored materials procurement and supply
	S3N	Postage and telecommunications
	S3P	various
	<b>S4A</b>	Other expenses of operation
	S4B	Royalties for sales, patents, licenses, processes, similar rights and assets
D.11	S4D	Entertainment allowances paid
P.2	S4I	Maintenance fee of Assembly
	S4K	Losses on disposal of fixed assets
	S4L	on tangible and intangible assets
	S4M	on financial asset
	S4P	Transfer of operating non-financial products
	S4Q	products returned
	S4R	Other product transfers
	S4S	Other operating expenses of various non-financial
	<b>T50</b>	ENDOWMENT FUND FOR GENERAL FINANCIAL RISK
	<b>T51</b>	DEPRECIATION AND PROVISIONS ON CAPITAL
	T53	Depreciation and amortization of accrued leave
	T54	Depreciation and amortization of operating
	T55	Amortisation of non-operating assets
	T56	Provisions for impairment of assets under
	T57	Provisions for impairment of fixed assets of exploitation
	T58	Provisions for impairment of non-operating assets
	<b>T6B</b>	DEPRECIATION AND PROVISIONS loan losses
	<b>T6C</b>	Charges to provisions for outstanding claims
	T6D	Provisions for impairment of loans overdue more than 6 months
	T6E	Charges to provisions for nonperforming loans over 6 months to 12 months
	T6F	Charges to provisions for nonperforming loans over 12 months to 24 months or less
	T6G	Provisions for impairment of other assets of
	T6H	Provisions for risks and charges
	T6J	Allowances for regulated provisions
	T6K	Uncollectible receivables losses
	T6L	Loan losses not covered by provisions
	<b>T80</b>	CHARGES EXECTIONNELLES
	<b>T81</b>	LOSSES ON PRIOR YEARS
	<b>T82</b>	TAXES ON SURPLUS
	<b>L80e</b>	SURPLUS
	<b>T84</b>	TOTAL EXPENSES
	<b>POSTES</b>	PRODUCTS
	<b>V08</b>	PRODUCTS ON TRANSACTIONS WITH FINANCIAL INSTITUTIONS
D.41/P.11	<b>V1A</b>	Interest on overdrafts
	V1B	body Financial
	V1C	Caisse Centrale
	V1D	Public Treasury
	V1E	CCP
	V1F	Banks and correspondents

SNA code		Description of items in DFS
	V1H	financial Institutions
	V1I	SFD
	V1K	Other financial institutions
D.41/P.11	<b>V1L</b>	Interest on other deposit accounts receivable
	V1Q	Interest on term deposits constituted
	V1R	Interest on deposits of security established
	V1S	Interest on other deposits made
D.41/P.11	<b>V2A</b>	Interest on loan accounts
	V2C	Interests on loans less than a year
	V2G	Of interest on term loans
D.41/P.11	<b>V2Q</b>	other Interests
	V2S	various Interests
P.11	<b>V2T</b>	commissions
	<b>V3A</b>	PRODUCTS ON TRANSACTIONS WITH MEMBERS, CUSTOMERS OR BENEFICIARIES
D.41/P.11	<b>V3B</b>	Interest on loans from members, beneficiaries or clients
	V3G	Other Short-term loans
	V3M	Interest on medium term loans
	V3N	Interest on long-term loans
D.41/P.11	<b>V3R</b>	other Interests
	V3T	various interests
P.11	<b>V3X</b>	commissions
	<b>V4B</b>	PRODUCTS ON SECURITIES TRANSACTIONS AND OTHER OPERATIONS
P.11	<b>V4C</b>	And profits on investment securities
D.41/P.11	<b>V4D</b>	Interest on credit granted to non-member staff
P.11	<b>V4E</b>	Products on various operations
P.11	<b>V4F</b>	commissions
P.11	<b>V5B</b>	PRODUCTS ON FINANCIAL ASSETS
	<b>V5C</b>	Income from loans and subordinated
	<b>V5D</b>	Dividend income on equity securities
	<b>V5F</b>	And profits on securities investments
	<b>V5G</b>	PRODUCTS ON OPERATIONS AND FINANCE LEASE TRANSACTIONS RELATED
	<b>V5H</b>	Income from leasing operations
P.11	V5J	rents
	V5K	Reversals of provisions
	V5L	Gains on sale
P.11	V5M	other products
	<b>V5N</b>	Gains on operating lease with option to purchase
P.11	V5P	rents
	V5Q	Reversals of provisions
	V5R	Gains on sale
P.11	V5S	other products
	<b>V5T</b>	Income from rental operations sale
P.11	V5V	rents
	V5W	Reversals of provisions
	V5X	Gains on sale
P.11	V5Y	other products
	<b>V6A</b>	PRODUCTS ON EXCHANGE OPERATIONS

SNA code		Description of items in DFS
	<b>V6B</b>	Gains on foreign exchange
P.11	<b>V6C</b>	commission
	<b>V6F</b>	OFF-BALANCE SHEET PRODUCTS
	V6K	Products on financing commitments given to financial institutions
	V6L	Products on financing commitments given to customers members and beneficiaries
	V6N	Products guarantee commitments given to financial institutions
	V6P	Products guarantee commitments given to customers members and beneficiaries
	V6Q	Income from securities commitments
	V6R	Products on other commitments data
	V6S	Revenue transactions made on behalf of third parties
P.11	<b>V6U</b>	PRODUCTS PROVIDE FINANCIAL SERVICES
	<b>V6V</b>	Products on payment
	<b>V6W</b>	Other products on financial services
	<b>V7A</b>	PRODUCTS OF OPERATIONS FINANCIAL
	V7B	Gain on disposal of asset items
	V7C	transfers of financial operating expenses
	V7D	Variety of financial revenues
	<b>CVENT</b>	SALES
	V8B	Commercial margin
	V8C	Sales of goods
	CPGE	GENERAL OF REVENUE
	<b>W4A</b>	VARIOUS OPERATING INCOME
	<b>W4B</b>	Fees for concessions, patents, licenses, rights and similar assets
	<b>W4D</b>	Entertainment allowances and remuneration of directors, manager received
	<b>W4G</b>	Gains on sale
	W4H	on intangible and tangible assets
	W4J	financial assets
	<b>W4K</b>	Income from non-operating buildings
	<b>W4L</b>	Transfers operating expenses nonfinancial
	W4M	Charges refracture
	W4N	Charges a leave over several years
	W4P	Other expense transfers
	<b>W4Q</b>	VARIOUS OTHER REVENUE
	<b>W50</b>	ASSETS PRODUCED
	W51	tangible
	W52	intangible assets
	<b>W53</b>	OPERATING GRANTS
	<b>X50</b>	TAKEN FROM THE GENERAL FUND FINANCIAL RISK
	<b>X51</b>	TIMES OF DEPRECIATION AND PROVISIONS FOR FIXED
	<b>X54</b>	Reversal of amortization of intangible
	<b>X56</b>	Reversals of impairment of fixed assets
	<b>X6B</b>	BACK OF PROVISIONS AND RECOVERED ON CLAIMS AMORTIZED
	<b>X6C</b>	Reversals of provisions for NPLs
	X6D	Reversals of provisions for nonperforming loans more than 6 months
	X6E	Reversals of provisions for nonperforming loans over 6 months to 12 months
	X6F	Reversals of provisions for nonperforming loans over 12 months to 24 months or less
	<b>X6G</b>	Reversal of impairment of other assets of
	<b>X6H</b>	Reversals of provisions for risks and charges



SNA code		Description of items in DFS
	X6I	Reversals of regulated provisions
	X6J	Recoveries of receivables written off
	X80	PRODUCTS exceptional
	X81	PROFITS ON PRIOR YEARS
	L80d	DEFICIT
	X84	TOTAL PRODUCTS

Figure II.3.11 Senegal – Concordance table for insurance

SNA code	Operating account insurance labels
	FLOW
	Benefits and expenses paid
	- Gross
	- Reinsurance and retrocession
	- Net
	Claims expenses
P.11	- Gross
	- Reinsurance and retrocession
	- Net
	commissions
P.2	- Gross
	- Reinsurance and retrocession
	- Net
	Other charges:
D.11	Staff costs
D.29	Taxes
P.2	Works, supplies and external services, transport and travel
P.2	Various management fees
	Depreciation
	Additions to provisions
	Investment expenses:
	financial expenses
P.2	securities
P.11	On investment properties
P.2	other fees
	Depreciation of investment securities
	CREDIT
	premiums:
	Bonuses and other (net of cancellations)
	- Gross
	- Reinsurance and retrocession
	- Net
	Earned premiums for the year
P.11	- Gross
	- Reinsurance and retrocession
	- Net
	Investment income
	financial products
P.11	securities
P.11	On investment properties
P.11	other products
	Other products:

SNA code	Operating account insurance labels
	Operating subsidies
	accessory products

## II.4. South Africa – central bank accounts

### II.4.1. Introduction

The monetary authority consists of the South African Reserve Bank<sup>45</sup>, the central bank of South Africa, governed in terms of the South African Reserve Bank Act, 1989 (Act No. 90 of 1989), and its subsidiary, the Corporation for Public Deposits, governed in terms of the Corporation for Public Deposits Act, 1984 (Act No. 46 of 1984). The central bank, among other things, issues banknotes and coin, conducts monetary policy, provides credit to banks, manages South Africa's foreign-exchange reserves, supervises and regulates the banking sector, and acts as lender of last resort to the banking system. The Corporation for Public Deposits accepts call deposits from the public sector and invests the funds in short-term money-market instruments including Treasury bills.

Legislation to establish a central bank in South Africa was enacted in August 1920 and the Currency and Banking Act was promulgated on 17 December 1920. The South African Reserve Bank (the Bank) commenced operations in June 1921, after the height of post-war inflation, and at a time of deflation and depression. The Bank's sole right to issue currency in terms of the Currency and Banking Act expired in 1945 and this necessitated the passing of the South African Reserve Bank Act in 1944. Core to central banking are two principal functions, namely controlling the currency, by virtue of having the sole right to issue notes and coin; and maintaining the purchasing power of the monetary unit.

#### *Brief history of the use of administrative data in national accounts*

The South African Reserve Bank (SARB) and the Corporation for Public Deposits (CPD) forms part of the monetary sector which is a sub-sector of the financial corporate sector. For the economic sector, it forms part of the financial intermediation which is a sub-sector of the financial intermediation, insurance, real-estate and business services sector. This in turn forms part of the tertiary sector. The industry or economic activity breakdown generally uses the first digit level of the Standard Industrial Classification of all Economic Activities (ISIC). The SARB is classified as SIC 8111. The CPD is added to the total financial corporate sector.

Before 1993 the SARB data was implicitly included in the banking statistics. The 1993 SNA was implemented in 1999 and the central bank was explicitly included in the calculation of financial intermediation. The 1993 SNA recommended that the services of the central banks be measured on the basis of receipts from fees and financial intermediation services indirectly measured. In 1995 the Inter-Secretariat Working Group on National Accounts revised the recommendation for measuring the output of central banks. In cases where market output is not separated from non-market output, the whole of the output of the central bank should be treated as non-market and valued at the sum of costs. This is the option used by the SARB.

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<sup>45</sup><http://www.resbank.co.za>

### ***Measurement of the output of the Central Bank (SARB)***

Output is measured as the sum costs, i.e. intermediate consumption, compensation of employees, consumption of fixed capital and other taxes less subsidies on production. Commission and fees for directly measured services invoiced by the central bank is included in the calculated of the output. FISIM do not have to be calculated for the central bank. Source data is obtained from the FSD of the SARB. Intermediate consumption consist of all expenditure items related to the central bank. Source data is obtained from the FSD of the SARB.

### **II.4.2. Sources and institutional arrangements for access of central bank accounts**

To receive information on the income statement and balance sheet, the Head of the Research Department (RSH) sent a memo to the Head of the FSD to request the detailed financial statements of SARB to be provided to the national accounts division monthly.

Following this request, National Accounts received more detailed information on personnel cost, operational costs and investment income from financial assets. Additional information on investment income from fixed financial assets will also be required from the FMD as well. The Head of RSH will send a memo to the Head of FMD to request this information.

### **II.4.3. Structure of central bank accounts that are provided for national accounts compilation**

The below table presents the coding structure of central bank accounts for the purpose of national accounting.

Figure II.4.1: South Africa – Structure of central bank accounts

<b>Non-market producers</b>		
<b>8111</b>	<b>Monetary intermediation: SARB (Central Bank)</b>	
<b>I</b>	<b>PRODUCTION Current prices</b>	
P1	Output at basic prices	resources
P2	Intermediate consumption	uses
B1	Value added at basic prices, gross	Balancing item
<b>II.1.1</b>	<b>GENERATION OF INCOME</b>	
B1	Value added at basic prices, gross	resources
D29	Other taxes on production	uses
D39	Other subsidies (-)	uses
	Value added at factor cost	
D1	Compensation of employees	uses
B2/3	Operating surplus/mixed income, gross	Balancing item

### **II.4.4. Translating the item-wise revenues and expenditures shown in central bank accounts**

The below table is a bridge table prepared to link the transactions with SNA codes.

Figure II.4.2: South Africa – Bridge table between central bank accounts and national accounts

<b>Actual SARB Income Statement</b>		
Investment income		
Foreign assets		
Loans		
Notional Interest - AC 133		
Accommodation to banks		
Bonds		
Interest expense		
Foreign loans		
Money market sw aps		
Reverse repurchase agreements		
Debentures		
Call deposits		
NT Sterilisation deposit		
Sundry*	D29	
<b>Net interest income/(expense)</b>		
Profit/(Loss) on foreign investments		
<b>Net investment income/(expense)</b>		
<b>Other income</b>		
Commission on	P1	
-Foreign exchange transactions	P1	
-Banking services	P1	
Net rental income on fixed property	P1	
Dividends received		
Directors fees received		
Profit/(loss) on the sale of fixed assets		
Sundry Income	P1	
<b>Total income</b>		
<b>Expenditure</b>		<b>At cost</b>
Personnel costs (detail available)	D1	P1
Operational costs (detail available)	P2	P1
Internal recoveries	P2	P1
Cost of new bank notes	P2	P1
Cost of new coin	P2	P1
Profit/(loss) on the sale of fixed assets		
Depreciation		
<b>Net income/(loss) before exceptional items</b>		
Realised Profit/(Loss) on domestic investments		
<b>Net income/(loss) before taxation</b>		
Taxation		
<b>Net income after taxation</b>		
Dividend paid		
<b>Unappropriated income/(loss) for the period</b>		

D29 – Other taxes on production is included in sundry income.

D39 – The value for other subsidies on production in the case of SARB is always nil.

No adjustments are made to the central bank data from FSD to the national accounts data.

Output can, as a second-best approach, be measured at cost but the central bank would remain part of the financial corporate sector regardless of how its output was measured. As a result of lack of information it was decided that the SARB would not be included in the calculations of FISIM. It was also decided that the main focus would be on those institutions which, strictly speaking, operated mainly as financial intermediaries, such as the commercial banks, and that this would exclude, for the calculation of FISIM, institutions such as the Development Bank and the Industrial Development Corporation.

## II.5. Tunisia: Estimation and Allocation of FISIM

### 1. Introduction

The output of financial intermediaries includes the cost of explicit commissions and the Financial Intermediaries Service Indirectly Measured (FISIM).

### 2. Allocation of FISIM

In the previous set of accounts, the FISIM (Production on Imputed Banking Services) was attributed to a notional industry. In the new system this services should be treated according to the user institutional sector as intermediate consumption, final consumption or export. The allocation method is based on a reference rate that is applied to the outstanding balance of loans and deposits of the institutional sectors. The difference between the calculated interests and the interest actually received and paid is financial intermediation service that is subsequently distributed among the various institutional sectors.

The allocation of FISIM is based on:

- Outstanding interests effectively received from and paid to different sectors through the profits and loss accounts of the Central Bank and financial accounts statistics;
- the value of accrued interest received and paid is calculated based on the interest rate of banks.
- A reference rate (inter-bank) with which the new amounts of interests (paid and received) will be calculated.

#### *The reference interest rate*

The choice of a single reference rate for interests received and interests paid requires the calculation of a weighted average interest rate of the corresponding detailed assets.

$$r = \text{Sum} (I_i * E_i) / \text{Sum} (E_i)$$

With:  $I_i$ : interest rate of financial transaction  $i$

$E_i$ : Outstanding amount of the financial transaction  $i$

In 1997,  $r = 6.69928$

#### *Calculation and allocation of FISIM*

FISIM is the sum of the difference arising from, on one hand, the difference between the interest actually received and the reference amount calculated by applying the reference interest rate to the outstanding loans and investments and on the other hand, the difference between the result of the product of the reference rate by deposits and the interests actually paid. The allocation of FISIM consists of breaking down the two parts: interests received and interests paid by user institutional sector and by type of transaction on the basis of "who to whom" outstanding amounts.

$$\text{FISIM} = \{\text{Interest received} - r^*(\text{Credits \& Investments})\} + \{r^*(\text{Deposits \& issuing}) - \text{Interests paid}\}$$

$$\text{Estimated FISIM} = 358663 + 241090 = 599753$$

### II.5.1 Supply and use balances on FISIM

1997 NB	
Output	599753
Imports	7055
<b>Total</b>	<b>606808</b>
Intermediate Consumption	375542
Non-financial Corporates	323741
Financial institutions	1974
Public Administrations	49827
Final Consumption (Households)	204124
Exports	27142

### II.5.2 Calculation of FISIM

	Outstanding amount	Interbank interest rate	Interest incurred	Reference interest (RR0.069928)	FISIM
<b>Receipts</b>					
Short-term Capitals & investments in foreign currency	691988	8.0000	55359	48389	
Long-term Capitals & investments in foreign currency	950000	8.0000	76000	66431	9568
Treasury bonds	1158894	7.8219	90648	81039	9608
Portfolio with sort-term maturity	2135364	11.0000	234890	149321	85568
Portfolio with medium-term maturity	4005433	9.4872	380003	280091	99912
Portfolio with long-term maturity	2635154	9.5198	250861	184271	66591
Debit current account	1624170	12.3750	200991	113575	87416
<b>TOTAL</b>	<b>12509015</b>		<b>1233393</b>		<b>358663</b>
<b>Expenses</b>					
Short-term Capitals & investments in foreign currency	72727	6.8750	5000	5086	
Long-term Capitals & investments in foreign currency	654545	6.8750	45000	45771	771
Long-term private assets	1402516	6.8750	96423	98075	1652
Int.aff.aux.emp.Etat	982087	1.4559	14298	33940	19642
Int.CENT/CCP-Etat	625862	4.8659	30454	43765	13311
Deposit certificates	121000	4.5074	5454	8461	3007
Portfolio with medium-term maturity	1799578	6.8750	123721	125841	2120
Open access deposits	2878697	0.6843	19699	118464	98764
Saving accounts	3549912	4.7579	168901	248238	79335
Restricted access accounts, cash voucher	1657746	5.6363	93436	115923	22487
<b>TOTAL</b>	<b>13671943</b>		<b>597386</b>		<b>241090</b>

### II.5.3 Intermediate consumption and final uses on FISIM

	Non-Finl	Aux Fin	Ins	State	EPNA	Local Admn	Social Security	Total IC	HFCE	Exports	Total Uses
<b>Receipts</b>											
Short-term Capitals & investments in foreign currency	5251			1719				6970			6970
Long-term Capitals & investments in foreign currency								0		9568	9568
Treasury bonds				9608				9608			9608
Portfolio with sort-term maturity	68455							68455	17114		85569
Portfolio with medium-term maturity	84926							84926	14987		99913
Portfolio with long-term maturity	48518			8084				56602	9988		66590
Debit current account	67797	266	549		1180	109		69901	17514		87415
<b>TOTAL</b>	269965	266	549	17692	1180	109	0	296462	59604	9568	365634
<b>Expenses</b>											
Short-term Capitals & investments in foreign currency	85							85			85
Long-term Capitals & investments in foreign currency								0		771	771
Long-term private assets								0		1652	1652
Int.aff.aux.emp.Etat				19642				19642			19642
Int.CENT/CCP-Etat								0	13311		13311
Deposit certificates	3007							3007			3007
Portfolio with medium-term maturity	2120							2120			2120
Open access deposits	36703	296	501		1058		5550	44108	39506	15150	98764
Saving accounts								0	79335		79335
Restricted access accounts, cash voucher	6880		361		481		2397	10119	12368		22487
<b>TOTAL</b>	48710	296	862	19642	1539	0	7947	79081	144520	17574	241175
<b>Total FISIM allocated</b>	318675	562	1411	37334	2719	109	7947	375543	204124	27142	606809

## Annex II. Country case studies on using balance of payments data in national accounts

### III.1. Tunisia

#### III.1.1. Transition from the balance of payments to the rest of the world's accounts

The current version of the balance of payments is according to the 5th edition of the IMF manual, which meets the requirements of the 1993 SNA. The sections are divided into: the current account, the capital account and financial account. An adjustment is that the records by debit and credit in the balance of payments are not recorded simultaneously during each transaction (when recording).

##### *The current account*

This account includes transactions on goods and services, income and current transfers. Goods values are recorded free on board (FOB) whether in imports or exports. Services include several positions, such as transportation, travel, financial services, insurance, communications and government operations. The income includes wages, interest on external debt, dividends and profits. Current transfers are allocated between the public sector and the private sector

##### *The capital and financial account*

The capital account includes capital transfers, which include donations and investment aid. For the financial account there are five functional categories: direct investment, portfolio investment, loans to medium and long term administration, lending and borrowing in the medium and long-term business, short-term capital.

#### III.1.2. Construction of the rest of the world account

The development of the accounts for the rest of the world is essentially based on the balance of payments. The balance of payments is compiled from the nation's point of view and not the rest of the world. Therefore it is appropriate to reverse the balance of for the account of the rest of the world i.e. the resources of Tunisia becoming the world uses vice versa (e.g. imports are an expense in Tunisia while it represents resources for the rest of the world).

Figure II.1.1: Tunisia – Rest of the world account

Balance of payments	Rest of the World Account
Currents transactions (balance)	Balance of current transactions
Goods	External account on goods and services
Services	
Revenues	External account on primary revenues and current transfers
Current transfers	
Capital and financial transactions account	
Capital account	Capital account
Financial transactions account	Financial account
Adjustments transactions	Financial account adjustment



In BOP, the balance current accounts do not correspond to the capacity of lending or borrowing of the country. This account balance of the rest of the world considers capital transfers while such transfers normally feature in the balance of the capital account.

Certain items are not treated the same way in the balance of payment as in the account of the Rest of world: studies and courses, technical assistance fee license fee you, major works are in service in one and distribution operations in the other.

Some transactions do not have the same content. For example insurance transactions are fully classified service in the balance, while the rest of the world account distinguishes distributive transactions (D71 and D72 net premium payments) from transactions in goods and services that correspond to imports service.

Figure II.2.2: Tunisia – Rest of the world account example of the base year 1997

		1997	
		BOP	SNA
<b>P711</b>	Import of merchandise (FOB)	<b>8,309.9</b>	<b>8,309.9</b>
<b>P712</b>	Import other goods (Dep.Gov.)		<b>+84.0</b>
<b>P71</b>	Imports of goods (FOB)	<b>8,309.9</b>	<b>8,393.9</b>
<b>P721</b>	Imports of transport services	<b>557.0</b>	<b>517.0</b>
	Charter		<b>-40.0</b>
<b>P722</b>	Imports of other services	<b>748.5</b>	<b>559.5</b>
<b>D7522</b>	Studies and internship		<b>-43.8</b>
<b>D7522</b>	technical assistance		<b>-8.1</b>
<b>D11</b>	<b>Salaries of local personnel of Tunisian Embassy abroad</b>		<b>-10.9</b>
<b>D422</b>			<b>-50.4</b>
<b>D422</b>	Royalty and license fee		<b>-3.8</b>
<b>P712</b>	Import of other merchandise		<b>-95.1</b>
<b>P622</b>	Charter		<b>+40.0</b>
<b>D7</b>	Insurance Service(Arbitration)		<b>-16.9</b>
<b>P72</b>	<b>Import of services</b>	<b>1,305.5</b>	<b>1,076.5</b>
<b>P7</b>	<b>Imports of goods and services</b>	<b>9,615.4</b>	<b>9,470.4</b>

The rest of the world is not an institutional sector in the same sense of consolidation of institutional units. It is rather a fictional unit that maintains economic relations with the resident units. Its sequence of accounts are not the same as in the case of resident sectors. Only three balances are significant: the external balance of goods and services, the current account balance and the balance of receivables and payables. These accounts are established from the rest of the

world point of view. The capacity of lending/borrowing of the rest of the world is equal to that of the nation with opposite sign.

### **III.1.3. The sequence of the rest of the world accounts**

- External account of transactions on goods and services: It corresponds to the production account of resident institutional sectors. Imports are supplies and exports are uses.
- External account of primary incomes and current transfers: This takes into account the external balance of goods and services and the current distribution transactions of which the salaries, property income and current transfers are the most important. The balance in this account is the current account balance with the outside.
- Capital account: The capital account shows how the national economy finances its capital formation. From the perspective of the rest of the world, capital account shows the balance of all transactions between the national economy and the rest of the world.

### **III.1.4. The rest of the world's specific transactions**

- D1: Salaries: This transaction represents payments that resident units make to non-resident employees and vice versa. Wages received by Tunisian workers abroad are not included in wages since it is a flow between the units. However, when Tunisians workers send their remittances to the economy in Tunisia this flow is taken up as current transfers (D75).
- D74: Current international cooperation: This transaction consists of current transfers, in cash or in kind, between governments and outside. It serves only to fund current spending. It should not be confused with those used to finance investments, which are capital transfers.
- D9: Capital transfers: Capital transfers from the rest of the world are investment aid.

### **III.1.5. Conclusion**

From this paper, two essential ideas emerge: (i) the account of the rest of the world is the opposite of the balance of payments, (ii) the classification of the transactions in the account of the world are not the same as in the balance of payments although the latter follows the 5th edition of the IMF manual.

## **Annex III. Country case studies on the use of tax data in national accounts**

### **IV.1. Zimbabwe**

#### **IV.1.1. Introduction**

The production account is compiled for fourteen industries according to the International Standard Industrial Classification (ISIC Revision 3) adopted by the Zimbabwean economy.

Under normal circumstances main sources of data are economic censuses carried out yearly for agriculture, manufacturing, mining and quarrying, construction, and, water and electricity; annual surveys for services industries (used to determine cost structures); central and local government accounts; sales taxes; and employment statistics on numbers of employees and earnings as well as annual reports of public enterprises.

Of late, due to inadequate funding for statistics, major economic surveys were carried only until 2005. Due to this and many other challenges that were being experienced in the economy, alternative methods based on using some proxy indicators have been adopted to compile national accounts.

#### **IV.1.2. Calculation of Gross Domestic Product 2000-2005**

##### ***Derivation of a weighted exchange rate***

For 2005 the amount of goods imported using the official exchange rates and imported using parallel market exchange rate were used as weights for deriving unitary exchange rate. This rate was used to convert the 2005 current price GDP in the Zimbabwean Dollar terms to GDP in US dollar terms for that year.

##### ***Calculation of Gross Domestic Product***

The detailed formula is described below:

- A weighted exchange rate was found using the following formula:  $0.4 \times \text{Official exchange rate} + 0.6 \times \text{parallel exchange rate}$ . The formula is adopted following the assumption that 40% of the transactions were done on the formal market and 60% were done on the parallel market.
- 2005 was used as a benchmark, so the weighted exchange rate for the year was used to divide the nominal GDP for the same year to come up with the GDP in US dollars.
- To project backwards the following formula was used:

$$(\text{USDGDP}_{yto}) * \frac{\text{ZIM\$GDP}_{kyt} - 1}{\text{ZIM\$GDP}_{kyto}}$$

Where y stands for the year, and k stands for constant. This was done for all the years backwards.

- For the years after 2005, the following formula was used:

$$(\text{USDGDP}_{yto}) * \frac{\text{ZIM\$GDP}_{kyl} - n}{\text{ZIM\$GDP}_{kyto}}$$

This method assumes that the movement in the GDP deflator is the same as those in the unitary exchange rate. This in turn implies that the GDP deflation for the GDP in US dollar is one each year i.e. there is no GDP inflation in US dollars.

If the movements in CPI were equal to the movement to the GDP deflator then all the movements will be the same as movements in unitary exchange rates

If such a scenario arises where CPI movement is the same as movement of the GDP deflator and movement in unitary exchange rates, then there is no inflation in US dollar terms

### IV.1.3. Compilation of GDP for 2009

#### *Value added tax method*

Value Added tax (VAT) is a fraction deductible from value addition. In Zimbabwe VAT constitute 15% of the taxable industries' value addition. The total VAT collected for 2009 is equal to \$370, 443,408.65. Therefore the total value addition for the industries is

$$\$370, 443,408.65 * \frac{100}{15} = 2,469,622,720$$

This figure was allocated proportionally to the contribution of each industry to VAT. In order to account for all industries in the economy, non-taxable industries estimates were derived from recent surveys and production accounts as given in the account overleaf:

Figure III.1.1: Zimbabwe – Sources and methods for estimating GDP by activities

Industry	Normal source of data	Proposed solution
Agriculture, Hunting and Forestry	<p>a) Production Account of Agriculture, forestry and Fishing</p> <ol style="list-style-type: none"> <li>1) Crop production on large scale commercial farms,</li> <li>2) Agricultural production on small scale commercial farms,</li> <li>3) Agriculture and livestock on communal lands</li> <li>4) Agricultural services,</li> <li>5) Changes in herds communal and commercial, e)Net additions to capital stock in large scale commercial farms,</li> <li>6) Production by Agricultural Estates,</li> <li>7) Volume and value of livestock slaughtering and milk and butter fat prodn ,</li> <li>8) Public Corporations GFCF (From Finance parastatal bodies summary) Central Govt. GFCF (From Finance GFS)</li> </ol>	Recent Crop assessment data were used. This data was complimented with data from Tobacco marketing institutions. VAT data on agriculture services, forestry hunting and fishing was added to come up with the value addition for the whole industry.
Mining and Quarrying	<p>a) Census of Industrial Production tables (final tables),  b) Mineral production volume index (1990 = 100)  c) Value of mineral production,  d) Central Govt. GFCF (From Finance GFS)</p>	In Zimbabwe almost all the minerals that are produced are exported the value addition should be close to the value of mineral exports. The value addition is 246,083,507 and the value of exports is

Industry	Normal source of data	Proposed solution
		345,406,196the difference between being intermediate consumption, 29% of gross output
Manufacturing	a) Census of Industrial Production tables (final tables), b) Index of volume of production of the manufacturing industries(1990=100)	Value added tax was used. Value addition was 496,936,835 plus around 20% informal sector
Electricity and Water	a) Census of Industrial Production tables (final), b) Electrical energy produced in Zimbabwe, c) Central Govt. GFCF (From Finance GFS), ZESA report for GFCF (Finance section)	Production accounts from ZESA holdings and Zimbabwe National water authority were used.
Construction	a) Census of Industrial Production tables (production section) b) Construction work done by the public and private sectors (production section) c) B roll earnings(from company returns)employment section, d) Construction earnings (from employment section), e) Central Govt. GFCF ( From Finance GFS)	Percentage change in Imports for building and construction Material was used to project 2008 figure. The taxation data was very minimal
Distribution, hotels and Restaurants	a) Turnover figures from the taxes department (production section) b) Retail trade value index (production section) c) Hotel bed occupancy ( migration statistics) d) National Accounts questionnaire analysis(Output and GFCF) e) Classification of functions of govt. (other economic activities, central, local), f) Parastatal bodies Summary(Finance Section) g) Central Govt. GFCF (From Finance GFS) h) Census of Distribution (preliminary figures)	Tax data was used. Data for hotel occupants was readily available from ZTA be readily available
Transport and Communication	a) NRZ, PTC, AZ, figures (finance section parastatals summary), Load tonne Km NRZ for the above from Production section, Load tonne Km flown AZ for the above from Production section, b) CMED & Civil Aviation ( Finance section), c) Consumer price index ( Code 17500) d) Number of vehicles registered (production Section/Min. of transport), NRZ own account production ( Production Section), e) PTC own production ( production Section), PTC earnings code 7200 (employment section), PTC revenue annual report ( Finance section) f) National Accounts Questionnaire Analysis both output and GFCF, g) Parastatal bodies Summary(Finance Section) h) Central Govt GFCF ( From Finance GFS)	Taxation data was used.
Finance and Insurance	a) Report of the Commissioner of Insurance and Provident Funds(Min of Fin) b) Finance statistics report (Finance Section) c) Imputed banking charges	Taxation data was used
Real Estate	a) Number of electricity connections from ZESA annual report, b) Rental income (estimated by national accounts) c) Earnings from the employment section	Electricity new connections data was used

Industry	Normal source of data	Proposed solution
Domestic Services	Number of employees (all industries) from Employment section	VAT data was used
Public Administration	a) Classification of Functions of Government figures from finance section b) Public Administration a) Earnings figures from Employment section b) Numbers employed in public administration c) Gross fixed capital formation (GFS Finance Section)	Data on industry employees and earnings from SSB was used, and also data on Governments Accounts
Education	a) Classification of Functions of Government (finance section) b) Education Earnings figures from Employment section c) Numbers employed in Education d) Gross fixed capital formation (GFS Finance Section) e) GFCF non-profit making bodies ( Finance Section)	Government accounts data was used. VAT data was also used for private education institutions
Health	a) Classification of Functions of Government figures from finance section b) Earnings figures from Employment section c) Numbers employed in Health, Gross fixed capital formation (GFS Finance Section), GFCF non-profit making bodies (Finance Section)	Government accounts data was used. For private health institutions VAT data was used.
Other Services	a) Classification of Functions of Government figures from finance section, b) Earnings figures from Employment section, c) Numbers employed in other services, d) Gross fixed capital formation (GFS Finance Section), e) GFCF non-profit making bodies ( Finance Section), Parastatal bodies Summary(Finance Section), f) National accounts questionnaire analysis (GFCF)	Vat data was used.

### ***Rough check on the validity of the GDP figure***

Under normal circumstance the taxable industries constitute 53 % of GDP at factor cost. GDP at factor cost is therefore equal to  $2,469,622,720 * \frac{100}{53} = 4,659,665,509$ . If we add net the value of net tax which is 758,540,227, the figure comes to USD 5,366,048,433.

### ***Expenditure tables***

Figure III.1.2: Zimbabwe – Sources and methods for estimating GDP by expenditures (preliminary figures)

1. Private Expenditure	Income and Expenditure survey (ICES) and As a residual	Calculated as a residual
2. Consumption Expenditure by Non Profit Making Bodies	Boosted Output figures from the survey results (Finance Section)	Data for the survey was used
3. General Government consumption expenditure	a) Central Government intermediate consumption by commodity,	COFOG data was used

	b) Local Government intermediate consumption total,  c) Fees sales and recoveries for both central and local government,	
4. GCF	ICES data, Agriculture Production Account, CIP, COFOG	COFOG data was used for government. Imports of Building and construction materials will be used, car parts and plant and machinery as well
5. GFCF	ICES data, Agriculture Production Account, CIP, COFOG	Imports of Building and construction materials will be used, car parts and plant and machinery as well
6. Changes in stock	GMB, oil refinery company, sugar refinery, tobacco sales floors, agriculture production account	Data was obtained from GMB, GMB, oil refinery company, sugar refinery, tobacco sales floors and changes in lives stocks were imputed
7. Exports and Imports	Customs and Exercise data  Reserve Bank BOP data	Customs and exercise data was used, BOP data was used
8. Property income paid and received from abroad	Reserve Bank BOP data	BOP data was used

Figure III.1.3: Zimbabwe – GDP in USD 2009 Base year latest estimates

INDUSTRY/YEAR	2009	CONTRIBUTIONS
Agriculture Hunting and Fishing	875,808,645	15.0
Mining and Quarrying	475,241,378	8.1
Manufacturing	825,538,117	14.1
Electricity and water	275,789,377	4.7
Construction	32,624,312	0.6
Finance and Insurance	221,990,778	3.8
Real Estate	109,984,576	1.9
Distribution, hotels, and Restaurants	615,836,530	10.6
Transport and communication	853,795,611	14.6
Public administration	186,415,651	3.2
Education	208,969,451	3.6
Health	68,800,645	1.2
Domestic Services	103,118,400	1.8
Other Services	241,074,583	4.1
<i>Less Fin. Int Services Indirectly Measured</i>	(22,138,249)	-0.4
<b>GDP at factor cost</b>	<b>5,072,849,805</b>	<b>86.9</b>
Net taxes on production	112,770,862	1.9
Other taxes on production	112,770,862	1.9
Other subsidies on production	-	0.0
<b>GDP at basic prices</b>	<b>5,185,620,667</b>	<b>88.9</b>

Net taxes on products	650,593,079	11.1
Taxes on products	650,593,079	11.1
Subsidies on products	-	0
<b>GDP at Market Prices</b>	<b>5,836,213,746</b>	<b>100</b>

Figure III.1.4: Zimbabwe – Expenditure approach

INDUSTRY/YEAR	2009	CONTRIBUTIONS
<b>Final Consumption Expenditure</b>	<b>6,081,604,910</b>	<b>104.2</b>
Private Consumption	4,680,441,870	80.2
Consumption of Private Non- Profit Bodies	412,684,856	7.1
Government Consumption Expenditure	988,478,184	16.9
<b>Gross Capital Formation</b>	<b>929,184,082</b>	<b>15.9</b>
Gross fixed Capital Formation	656,841,088	11.3
Changes in Stocks	272,342,994	4.7
<b>Domestic Expenditure</b>	<b>7,010,788,992</b>	<b>120.1</b>
<b>Net Exports of Goods and Services</b>	<b>(1,174,575,247)</b>	<b>-20.1</b>
Exports of Goods and Services	2,302,845,625	39.5
less Imports of Goods and Services	3,477,420,872	59.6
<b>Gross Domestic Product at Market Prices</b>	<b>5,836,213,746</b>	<b>100.0</b>
Net Property Income from Abroad	(83,573,830)	-1.4
Primary Income Received from Abroad	79,401,132	1.4
Primary income paid abroad	162,974,961	2.8
<b>Gross National Income</b>	<b>5,752,639,916</b>	<b>98.6</b>

Figure III.1.5: Income approach

Table 2.5Gross Domestic Income in USD	
<b>Wages and Salaries</b>	<b>1,887,901,172.73</b>
<b>Rent</b>	<b>86,780,356.73</b>
Rented dwelling (private)	24,567,305.49
Imputed for Owner-Occupied Dwelling	57,280,435.69
Central and Local Government	4,932,615.55
<b>Gross Operating Surplus</b>	<b>3,121,135,033.18</b>
Unincorporated	1,619,661,561.40
Companies (non-financial)	701,345,422.65
Financial Institutions	540,681,080.43
Public Corporations (non-financial)	220,968,611.96
Central and Local Government	38,478,356.74
Less Fin Int Services Indirectly Measured	(22,966,757.26)
<b>Gross Domestic Income at factor cost</b>	<b>507,2849,805</b>
Net taxes on production	112,770,862
Taxes on production	112,770,862
Subsidies on production	-
<b>GDP at Basic prices</b>	<b>5,185,620,667</b>
Net taxes on products	650,593,079.00
Taxes on products	650,593,079.00
Subsidies on products	-



<b>GDP at market prices</b>	<b>5,836,213,746</b>
Net primary income from abroad	(83,573,829.52)
Primary income received from abroad	79,401,131.85
Primary income paid abroad	162,974,961.38
<b>Gross National Income</b>	<b>5,752,639,916</b>

#### **IV.1.4. Calculation of CPI in USD**

The Central Statistical Office of Zimbabwe produces a consumer price index (CPI) and the month on month and year on year rates of inflation for the whole country once every month. The CPI is based on price observations from across the country covering both urban and rural outlets and weights obtained from the latest Income Consumption and Expenditure Survey (ICES).

As the economic situation characterized by hyperinflation deteriorated in 2007 and 2008 many products became scarce or unavailable in the country. The number of observations per month of the prices of the products used for computing the CPI similarly decreased. Under normal circumstances on average, close to 1500 observations of prices of all products were made every month. However, less than 500 observations per month were being made in the last half of 2008.

The period was also characterized by an increase in the number of domestic transactions that were conducted in foreign currency. This began unofficially, as parallel or black market activities, and then there was a mixture of both official (some shops were licensed to sell in foreign currency) and unofficial domestic transactions in foreign currency, until early in 2009 all transactions were permitted to be conducted in foreign currency.

It thus became necessary to construct a CPI of transactions in foreign currency. Although the office had begun observing prices both in foreign and local currency from the middle of 2008, there were very few recorded observations of prices in foreign currency until December 2008 when a total of 283 observations were recorded.

This paper describes how the challenges of constructing a new foreign currency based CPI, without conducting an ICES and faced with having to start with a few products that were available and accommodating an increasing number of products as they reappeared in the market, were handled. The techniques employed were similar to those used when the number of products available in the market was decreasing.

#### ***The normal method of calculating the CPI and rates of inflation in Zimbabwe***

##### **Index**

Every month prices of about 385 products are observed from outlets across the country in both rural and urban areas. The work is organized by province and for each province a geometric mean price for each item is calculated every month. The mean price is calculated for those items for which there are matching observations of prices, outlet by outlet in the current and previous month. A geometric mean price ratio of current to previous month prices is also calculated for each item, each province. National weighted mean prices and weighted mean price ratios are calculated from the provincial mean prices and mean price ratios, respectively, using expenditure weights obtained from the ICES.

The Laspeyres formula is used for calculating the price index. The month on month rate of inflation is obtained by dividing the current by the previous month's index and expressing the change as a percentage while the year on year rate of inflation is obtained by similarly comparing the figures for the current month with those of the same month in the previous year.

The calculation of the index is done at the lowest subclass level of aggregation. The class index is then obtained as a weighted mean of its subclass indices. The weight of the sub class is equal to the sum of the weights of the individual elementary aggregate items that comprise the sub-class. We have:

$$\begin{aligned}
 I_t &= \frac{\sum p_t q_0}{\sum p_0 q_0} = \frac{\sum p_t \frac{p_0 q_0}{p_0}}{\sum p_0 q_0} \\
 &= \sum \left( \frac{p_t}{p_0} \right) \left( \frac{p_0 q_0}{\sum p_0 q_0} \right) \\
 &= \frac{\sum \frac{p_t}{p_0} w_o}{\sum \frac{p_t}{p_{t-1}} \frac{p_{t-1}}{p_0} w_o} \\
 &= \frac{\sum \frac{p_t}{p_{t-1}} x \frac{p_{t-1}}{p_{t-2}} x \frac{p_{t-2}}{p_{t-3}} \dots x \frac{p_3}{p_2} x \frac{p_2}{p_1} x \frac{p_1}{p_0} w_o}{\sum \frac{p_t}{p_{t-1}} x \frac{p_{t-1}}{p_{t-2}} x \frac{p_{t-2}}{p_{t-3}} \dots x \frac{p_3}{p_2} x \frac{p_2}{p_1} x \frac{p_1}{p_0} w_o}
 \end{aligned}$$

In the above  $p_t$  is the price of an item in the current month, the national weighted mean price as described above;

$p_0$  is the price in the base or reference period;

$q_0$  is the quantity of the product consumed in the base period and generally,

$p_s$  is the price of the item in the  $s^{\text{th}}$  month.

$w_o = \left( \frac{p_0}{\sum p_0 q_0} \right)$  is the weight of item or its expenditure share during the period the Income,

Consumption and Expenditure Survey (ICES) was conducted.

For the above derivation the ICES period is taken as though it is also the reference period for the prices.

The formula for  $I_t$  is applied at the smallest sub-class level for which prices are observed from the outlets, for example the bread sub-class. In this instance  $w_o$  refers to the share of each type of bread in the total household expenditure as at the time of the ICES.

The index for bread for any month  $t$  is thus given by

$$I_t = \sum_{i=1}^3 \left( \frac{P_{it}}{P_{it-1}} \right) \left( \frac{P_{it-1}}{P_{it-2}} \dots \frac{P_i}{P_{io}} \right) W_{io}$$

$i = 1$  for white bread, 2 for brown bread and 3 for biscuits.

For computational purposes  $\left( \frac{P_{it-1}}{P_{it-2}} \dots \frac{P_i}{P_{io}} \right) W_{io}$  is taken as a weight  $W_{it}$ . Hence  $I_t = \sum_{i=1}^3 \left( \frac{P_{it}}{P_{it-1}} \right) W_{it}$ , in the above example.

The index for the next level of aggregation is obtained as a weighted arithmetic mean of the indices of the subclasses in the class. The process is repeated in a similar manner up to the all items index.

### Rate of inflation

The month on month rate of inflation is obtained as  $I_t/I_{t-1} = R_t^m$ .

The year on year rate of inflation is obtained as  $I_t/I_{t-1} = R_t^y$

$R_t^m$  and  $R_t^y$  are the month on month and the year on year rates of inflation, respectively.

Due to unavailability of products we obtained

$$R_t = \sum \frac{P_t}{P_{t-1}} W_o$$

We then obtained  $I_t = R_t I_{t-1}$  for  $t = 2, 3, \dots$

$$I_1 = R_1$$

Compare  $R_t = \sum \frac{P_t}{P_{t-1}} W_o$

and  $R^1_{r=it} / I_{t-1}$  for a sub-group like bread.

$$\begin{aligned} R^1_t &= I_t / I_{t-1} \\ &= \frac{\sum P_{it} W_{it}}{\sum (P_{it} / P_{it-2}) W_{it-1}} \\ &= \frac{\sum (P_{it} / P_{it-1}) \frac{P_{it-1}}{P_{io}} W_{io}}{\sum (P_{it} P_{it-2}) \frac{P_{it-2}}{P_{io}} W_{io}} \\ &= \frac{\sum \frac{P_{it}}{P_{io}} W_{io}}{\sum \frac{P_{it-1}}{P_{io}} W_{io}} \\ &= \frac{\sum \frac{P_{it}}{P_{io}} X \frac{P_{i0qio}}{\sum P_{i0qio}}}{\sum \frac{P_{it-1}}{P_{io}} X \frac{P_{i0q0}}{\sum P_{i0qio}}} \\ &= \frac{\sum P_{itqio}}{\sum P_{it-1qio}} \end{aligned}$$

$$\begin{aligned}
&= \sum p_{it} \frac{p_{it-1} q_{i0}}{p_{it-1}} / \sum p_{it} q_{i0} \\
&= \sum \left( \frac{p_{it}}{p_{it-1}} \right) \frac{p_{it-1} q_{i0}}{\sum p_{it-1} q_{i0}}
\end{aligned}$$

The index for a subgroup for a month is calculated using the Laspeyers formula.

$$I_t = \left( \sum p_{it} q_{i0} \right) / \left( \sum p_{i0} q_{i0} \right)$$

For computational purposes this is written as follows:—

$$\begin{aligned}
\sum p_{it} q_{i0} / \sum p_{i0} q_{i0} &= \sum_i (p_{it} / p_{i0}) q_{i0} / \sum p_{i0} q_{i0} = \sum p_{it} / p_{i0} \\
&= \sum_i (p_{it} / p_{i0}) w_{i0} \quad (w_{i0} = p_{i0} q_{i0} / \sum p_{i0} q_{i0}) \\
&= \sum_i (p_{it} / p_{it-1}) \dots (p_{i2r} / p_{i1}) (p_{i1} / p_{i0}) w_{i0} \\
&= \sum_i (p_{it} / p_{it-1}) w_{it} \quad (w_{it} = (p_{it-1} / p_{it}) \dots (p_{i1} / p_{i0}) w_{i0})
\end{aligned}$$

The rate of inflation for the subgroup for the month is given by  $I_t / I_{t-1} = R_r$ .

Milk, cheese and eggs consists of the items sour milk, fresh milk, sterilized milk, powdered milk, full cream and powdered milk for babies.

The formulae for  $I_k$  and  $R_t$  could not be used in Zimbabwe when the US dollar based consumer price index was introduced with the reference December 2008 = 100 but still using the weights derived from the 2001 Income, Consumption and Expenditure Survey (ICES). The reason was that there were items that were not available in the market as at December 2008. In fact from a possible 1400 observations of all items across the country only 280 odd were made in December 2008. The products became increasingly available as the months progressed in 2009.

When a product was not observed at all it was dropped, together with its corresponding weight, from the calculation of the index for its group and the all items index. For January 2009 only those items whose prices had been observed both in December 2008 and January 2009 were included in the calculation of the index. Since the index had December 2008 = 100, for January 2009 the index and the month on month rate of inflation were the same.

An item, whose price had not been observed in December 2008, had to have its prices observed for at least two consecutive months before it was included in the calculation of the index and rate of inflation.

The usual computational technique of calculating  $I_t = \sum (p_{it} / p_{i0} - 1) w_{it}$  as described above, could not be applied directly because it required knowledge or an estimate of

$(p_{it-1} / p_{it-2}) (p_{it-2} / p_{it-3}) \dots (p_{i1} / p_{i0}) = p_{it-1} / p_{i0}$ , which did not exist because  $p_{i0}$  did not exist.

However an index with the previous month = 100 including all items whose prices had been observed both in the current and previous month. The month indices are also the month on month rates of inflation.

By chaining such indices, an estimate of the index for the current month with December 2008 = 100 was obtained. Hence  $I_{1,0} \times I_{2,1} \times \dots \times I_{t,t-1}$ .

## Annex V. Country case studies on the use of other administrative data in national accounts

### V.1. Use of administrative data for monitoring construction activities in Senegal

Building construction activities and civil engineering works occupies an important place in the national economy, both through their contribution to the creation of wealth as by the number of people they employ. Therefore it is important to take them into account in national accounts. In Senegal, the construction activities are composed in a large part of informal activities, explaining the absence of an information system to cover exhaustively this industry. To overcome this difficulty, the National Agency of Statistics and Demography (ANSD) has set up a monitoring system based on:

- Data from a baseline survey conducted in 2001 at the national level;
- Administrative data, mainly on inputs used in construction activities.

The baseline survey has allowed, among others, to evaluate the production of the "construction" branch in 2000 and the inputs used. For the determination of the production of this branch in subsequent years, administrative data on inputs to construction activities (cement, sand, concrete iron etc.) are used to build an index of growth in value of building materials. This index allows to extrapolate the values of intermediate consumption (IC) after 2000. Then, the weight of intermediate consumption of construction materials in the production of construction (technical coefficient  $C_t$ ) is calculated from a sample of Construction companies that filed their financial statements with the ANSD. This allows to deduce the value of production over the period after 2000.

$$\text{Example: Production in year } t = \frac{\text{Intermediate consumptions of year } t (IC_t)}{\text{Technical coefficient } C_t} \quad (t > 2000)$$

With  $IC_t = IC_{2000} \times \text{Index of growth in value of IC between year } t \text{ and } 2000$