

## Chapter 3: Overview of the integrated framework (revised title) (Old Chapter 2: Overview)

### A. Introduction

3.1 This chapter provides an overview of the accounting framework of the SNA and in doing so gives an overview of most of the following chapters also.

- It introduces the conceptual elements that form the building blocks of the accounting system and the rules of accounting to be followed. They are further elaborated in section B and C and in their full detail in [part II of these standards](#) (chapters [34](#), [45](#) and [56](#)).
- It describes the standard view of the [sequence of economic accounts and related tables, which constitute the main elements of its central framework of main](#) accounting structure. Each account is introduced with a description of the nature of the account and an insight into the sort of analysis the account can yield. The accounts, [including concise information on elaborating and communicating the accounts](#), are described in section D and then in [part III of these standards](#) (chapters [67](#) to [171](#)).
- Thereafter, [section E provides a short introduction to crosscutting issues which are described in more detail in part IV of these standards](#) (chapters [22](#) to [27](#)).
- [Section F then provides a short introduction to part V of these standards, which comprises of chapters 28 to 33. Each of these chapters provides more detail on one of the main sectors, including the transactions and stocks between residents and non-residents \(the rest of the world\). These chapters also provide further information, where relevant, on the relationship with other macroeconomic standards](#)
- [Finally, this](#) chapter shows some of the ways in which the [sequence of economic accounts, the supply and use tables and the labour market table](#)~~central framework~~ may be applied flexibly, depending on specific country requirements. In particular [satellite thematic and extended](#) accounts are introduced. These extensions and applications of the SNA are described briefly in section ~~E~~[G of this chapter](#) ~~and as well as, more extensively, in part VI of these standards (chapters ~~183~~[34](#) to ~~293~~[9](#)).~~

3.2 As explained in chapter 1, the [integrated framework of national accounts](#)~~central framework~~ describes the essential phenomena which constitute economic behaviour: production, consumption, accumulation and the associated concepts of income and wealth. The SNA aims to provide a representation of this set of phenomena and their interrelations that is simplified to aid comprehension but still covers all important considerations. To achieve this, the [integrated framework of national accounts](#)~~central framework~~ must satisfy two conditions; it must be integrated and consistent.

3.3 To be integrated, the same concepts, definitions and classifications must be applied to all accounts and sub-accounts. For example, once it is decided dwellings are treated as assets, all dwellings must give rise to housing services that are included within the production boundary, regardless of whether the dwellings are occupied by the owners or are rented on the market. Equally, all give rise to income that must be treated in the same way in the SNA, regardless of the relationship between the owner and the occupier.

3.4 To be consistent, each economic flow or stock level appearing in the SNA must be measured identically for the parties involved. This consistency is achieved by applying throughout the SNA the same concepts and definitions and also by using a single set of accounting rules for all entries in the SNA. In practice, the actual data coming from the [accounts](#) or statistics provided by elementary units will not be fully consistent for various reasons and so achieving the consistency required by the SNA requires a large amount of additional work.

#### 1. Analysing flows and stocks

3.5 Basically, the purpose of a system of national accounts is to record economic flows and stocks. Economic

flows can be thought of in various ways. Consider the question “Who does what?” “Who” refers to the economic agent engaged in doing something, the operator. “What” is connected with the kind of action this agent is undertaking. In a few cases, the answer to this simple question provides a good preliminary characterization of an economic flow. However, in general the question is too simple to provide even a rough economic description of a specific flow. Take the example of somebody buying a loaf of bread. In order to characterize the flow, it is necessary to consider from whom this loaf of bread is bought (a baker or a supermarket) and what is given in exchange (a coin, ~~or~~ a note, [or a payment with debit card](#)). So the starting question is transformed into “Who does what with whom in exchange for what?” This rather simple flow involves two operators (a buyer, a seller), two main actions (a purchase, a sale), two secondary actions (a payment, a receipt) and two objects (bread, a coin, ~~or~~ a note, [or a payment with debit card](#)). Again, a complete description would require more information, at least the weight, kind and price of the bread.

- 3.6 The picture in the real world is still more complicated. Before this flow occurred, the seller had a certain quantity of bread in his shop; afterwards he has less bread but more money. The buyer had a certain amount of money, now he has less money but some bread (before eating it). So the flow between them has changed their initial situations. This means that flows cannot be looked at in isolation; the situations before and after a flow occurs need to be considered. At those two points in time, one must ask the question “Who has what?” The baker not only has bread and currency, he also has a house with the shop, baking equipment, some flour, a deposit in a bank, a car, etc. In other words, he has (he owns) a certain stock of objects. The same is true for the buyer. In addition to what they are in themselves, flows modify stocks. Flows and changes in stocks are intrinsically connected. The previous question is again transformed into “Who does what with whom in exchange for what with what changes in stocks?”
- 3.7 However, the various ways of looking at this example have not yet been exhausted. Before the baker can sell bread, he has to bake it. He uses flour, water, electricity, baking equipment, etc. So, an additional question is “Who does what by what means?” What he does can also be characterized in two ways: his activity (to bake) and the result of it (a product: bread). With respect to the buyer one can ask “Why does he buy bread?” The obvious purpose is to eat, as food; however, it could be to give to a beggar, as charity. This raises the question “Who does what for what purpose?”
- 3.8 Adding all the questions together results in a rather complex combination of simple links: “Who does what, with whom, in exchange for what, by what means, for what purpose, with what changes in stocks?” Answering these questions for all economic flows and stocks and operators in a given economy would provide an enormous amount of information describing the complete network of economic interrelations. However, it would require an enormous amount of basic information, which is not always available nor complete in that it may cover only certain aspects of the complex chain of questions. Further, it is necessary to organize the recording of economic flows and stocks in a comprehensible way, as discussed in the next section.

## 2. Recording flows and stocks

- 3.9 Users’ needs set certain requirements for the accounting framework. The first requirement is that it should provide a picture of the economy, but the picture must be simplified in order to be both comprehensible and manageable. The second requirement is that it should faithfully represent economic behaviour by covering all important aspects in a balanced way without neglecting or giving too little emphasis to some aspects or giving others too much prominence. Finally, it should portray all significant economic interrelations and the results of economic activity. Although meeting these requirements is necessary, they are somewhat contradictory. Achieving the right balance between them is not easy. Too great a simplification can lose sight of or neglect important aspects of economic behaviour; too detailed a portrayal of reality can overburden the picture and reduce insight; too much sophistication can lower comprehension and mislead some users; and so on.
- 3.10 To meet these requirements, the SNA uses a limited number of basic categories to analyse and aggregate certain aspects (Who? What? What purpose? What stocks?) of the very numerous elementary flows. However, the SNA simplifies the picture it gives of the economic interrelations by not recording the “from-whom-to-whom?” question in a fully systematic way; that is, it does not always depict the network of flows between the various types of operators. Consider three units, A, B and C, each of which makes payments of

the same type to the other two; they might be three shopkeepers, for example, who sell different types of goods. Suppose A buys 2 from B and 3 from C; B buys 6 from A and 1 from C; C buys 4 from each of A and B. A full articulation of the flows could be captured in a three- by-three table as follows:

**[Small unnumbered table below paragraph 2.10 of the 2008 SNA]**

- 3.11 Although only the purchases were specified, it follows that the receipts of each unit are also available in the table. The totals in the right-most column show the total purchases of each of the three units and the bottom-most row shows the total receipts by each of the three units. The sum of each must, obviously, be the same since each is the sum of all entries within the table. Within the [central framework sequence of economic accounts](#), the full detail of the flows from each of A, B and C to each of the others is not generally shown; it is sufficient to show only the totals in the right-most column and the bottom-most row and know that these must balance.
- 3.12 In some presentations, particularly those using a matrix format of presentation, some of these extra details may be shown. Discussion of this appears in chapters [4415](#), [2836](#) and [2937](#). Even in the [central framework sequence of economic accounts](#), the full detail may be available. For example if in some case A, B and C do not interact with one another but only with another unit G, as is the case in the payment of taxes, then there are only four entries to be shown; the payments by each of A, B and C and the receipts by G.
- 3.13 Another case where the SNA introduces a simplification is in terms of the “what in exchange for what?” question; that is, it does not indicate, for example, the specific nature of the financial counterpart (currency or deposit or short-term loan, etc.) for the purchases of goods and services or the payment of taxes.
- 3.14 The fact that the SNA is integrated, although articulated in only two and not three dimensions, does not reduce its consistency requirements. In effect, the purpose of the SNA is to derive national accounts that are as consistent as they would be if they were fully articulated; each economic flow or stock should be measured identically for both parties involved. The consistency in the SNA is achieved by applying the same concepts and definitions throughout and also by using a single strict set of accounting rules.

## **B. The conceptual elements of the SNA**

- 3.15 The SNA contains a number of conceptual elements that determine the accounting framework of the SNA and permit various aspects of the questions raised above to be answered. These concepts are:
- Institutional units and sectors (*who?*);
  - Transactions and other flows (*what?*);
  - Assets and liabilities (*what stocks?*);
  - Products and producing units (other aspects of *who* and *what?*);
  - Purposes (*why?*).

They are presented in turn.

### **1. Institutional units and sectors**

- 3.16 The fundamental units identified in the SNA are the economic units that can engage in the full range of transactions and are capable of owning assets and [also typically capable of](#) incurring liabilities on their own behalf. These units are called institutional units. Further, because they have legal responsibility for their actions, institutional units are centres of decision-making for all aspects of economic behaviour. In practice, some institutional units are controlled by others and thus in such cases autonomy of decision is not total and may vary over time. Legally independent holding of assets and liabilities and autonomous behaviour do not

always coincide. In the SNA, preference is generally given to the first aspect because it provides a better way to organize the collection and presentation of statistics even if its usefulness is limited in some cases.

### **Institutional sectors**

- 3.17 The institutional units are grouped together to form institutional sectors, on the basis of their principal functions, behaviour and objectives:
- *Non-financial corporations* are institutional units that are principally engaged in the production of market goods and non-financial services.
  - *Financial corporations* are institutional units that are principally engaged in [the production of market financial services including financial intermediation. It also includes the central bank, although they mainly produce non-market output.](#)
  - *General government* consists of institutional units that, in addition to fulfilling their political responsibilities and their role of economic regulation, produce services (and possibly goods) for individual or collective consumption mainly on a non-market basis and redistribute income and wealth.
  - *Households* are institutional units consisting of one individual or a group of individuals. All physical persons in the economy must belong to one and only one household. The principal functions of households are to supply labour, to undertake final consumption and, as entrepreneurs, to produce market goods and non-financial (and possibly financial) services. The entrepreneurial activities of a household consist of unincorporated enterprises that remain within the household except under certain specific conditions.
  - *Non-profit institutions serving households (NPISHs)* are legal entities that are principally engaged in the production of non-market services for households or the community at large and whose main resources are voluntary contributions.
- 3.18 Each sector contains a number of subsectors distinguished according to a hierarchical classification (described in chapter 45). A subsector comprises entire institutional units, and each institutional unit belongs to only one subsector though alternative groupings are possible. The distinction between public, national private and foreign controlled corporations and between various socio-economic groups of households is included in the SNA in order to respond to policy concerns.

### **Delimitation of the total economy and the rest of the world**

- 3.19 The total economy is defined in terms of institutional units. It consists of all the institutional units which are resident in the economic territory of a country. The economic territory of a country, although consisting essentially of the geographical territory, does not coincide exactly; some additions and subtractions are made (see chapter 265). The concept of residence in the SNA is not based on nationality or legal criteria. An institutional unit is said to be a resident unit of a country when it has a centre of predominant economic interest in the economic territory of that country; that is, when it engages for an extended period (one year or more being taken as a practical guideline) in economic activities on this territory. The institutional sectors referred to above include only resident units.
- 3.20 Resident units [may](#) engage in transactions with non-resident units (that is, units that are residents of other economies). These transactions are the external transactions of the economy and are grouped in the account of the rest of the world. Strictly speaking, the rest of the world is the account of transactions occurring between resident and non-resident units, but it may also be seen as the whole group of non-resident units that enter into transactions with resident units. In the accounting structure of the SNA, the rest of the world plays a role similar to that of an institutional sector, although non-resident units are included only in so far as they are engaged in transactions with resident institutional units. [These transactions also result in \(changes in\) stocks/positions of assets and liabilities between resident units and non-resident units.](#)

## 2. Transactions and other flows

- 3.21 Institutional units fulfil various economic functions; that is, they produce, consume, save, invest, etc. They may engage in various types of production (agriculture, manufacturing, etc.) as entrepreneurs, providers of labour or suppliers of capital. In all aspects of their economic functions and activities, they undertake a great number of elementary economic actions. These actions result in economic flows, which, however they are characterized (wages, taxes, fixed capital formation, etc.), create, transform, exchange, transfer or extinguish economic value; they involve changes in the volume, composition or value of an institutional unit's assets or liabilities. The economic value may take the form of ownership rights on physical objects (a loaf of bread, a dwelling) or intangible assets (a film original) or of financial claims (liabilities being understood as negative economic value). In all cases, economic value is potentially usable to acquire goods or services, pay wages or taxes, etc.
- 3.22 Most economic actions are undertaken by mutual agreement between institutional units. They are either an exchange of economic value or a voluntary transfer by one unit to another of a certain amount of economic value without a counterpart. These actions undertaken by mutual agreement between two institutional units are called transactions in the SNA. The SNA also treats certain economic actions involving only a single institutional unit as transactions. They are described as internal, or intra-unit, transactions. For example, own-account fixed capital formation is treated as a transaction between a unit in its capacity as a producer with itself in its capacity as an acquirer of fixed capital. Such transactions are similar in nature to actions undertaken by mutual agreement by two different institutional units.
- 3.23 However, not all economic flows are transactions. For example, certain actions undertaken unilaterally by one institutional unit have consequences on other institutional units without the latter's consent. The SNA records such actions only to a limited extent, essentially when governments or other institutional units take possession of the assets of other institutional units, including non-resident units, without full compensation. In fact, unilateral economic actions bearing consequences, either positive or negative, on other economic units (externalities) are much broader but such externalities are not recorded in the SNA. Human action may result in the transfer of natural assets to economic activities and the subsequent transformation of these assets. These phenomena are recorded in the SNA as economic flows, bringing in economic value. Non-economic phenomena, such as wars and natural disasters, may destroy economic assets, and this extinction of economic value must be accounted for. The value of economic assets and liabilities may change during the time they are held as stocks, as a consequence of changes in prices. These and similar flows that are not transactions, which are called other economic flows in the SNA, are described in chapter [4213](#).
- 3.24 Economic flows can be actual, observable flows or they can be built up or estimated for analytical purposes. Certain flows may be directly observed in value terms. This is the case for monetary transactions between two institutional units, such as a purchase or sale of a good or the payment of a tax. Other two-unit flows are observable but cannot be immediately valued. These flows include barter of goods and services or education services consumed by students and provided free of charge by government; a value in money terms has to be attributed to them. Barter is an example of a two-unit flow involving a "quid pro quo" that is, a flow in one direction is linked to a counterpart flow in the opposite direction; a social assistance benefit in cash is a two-unit flow that does not involve a quid pro quo. Another kind of flow involves only one institutional unit. Such flows may be physically observable, as in the case of output for own-account consumption or capital formation, or destruction by natural catastrophes. A value has to be attributed to them (this may be fairly easy in certain cases, such as when output is mostly sold). Other intra-unit, or internal, flows may not be observable as such; accounting entries are then constructed in order to measure economic performance correctly. This is the case for the ~~consumption of fixed capital~~[depreciation and depletion](#) or the revaluation of assets and liabilities. Certain inter-units flows, such as reinvested earnings on foreign direct investment, are also accounting entries created for analytical purposes. Finally, some observable monetary transactions are not recorded as they are observed in practice because they are of a composite nature (~~nominal~~[interest on loans and deposits provided by financial intermediaries](#), total insurance premiums) or their legal nature does not correspond to their economic one (financial leasing). Consequently, for the SNA, they are split up into various components and their classification and routing are modified.
- 3.25 Although monetary transactions have a basic role in the valuation of flows in the SNA, non-monetary transactions are also significant. They include flows of goods and services that take place between institutional units for which values have to be estimated and also some flows that are assumed to take place

within units. The relative importance of non-monetary transactions varies according to the type of economy and the objectives pursued by the accounting system. Although the volume of non-monetary flows is generally greater for less developed economies than for developed ones, even for the latter it is not negligible.

### **Main types of transactions and other flows**

- 3.26 Elementary transactions and other flows are very numerous. They are grouped into a relatively small number of types according to their nature. The main classification of transactions and other flows in the SNA includes four first-level types, with each subdivided according to a hierarchical classification. It is designed to be used systematically in the accounts and tables of the [central framework](#) [integrated framework of national accounts](#) and cross-classified with institutional sectors, industry and product, and purpose classifications. A full set of transactions and their codes appear in annex 1.
- 3.27 Transactions in goods and services (products) describe the origin (domestic output or imports) and use (intermediate consumption, final consumption, capital formation or exports) of goods and services. By definition, goods and services in the SNA are always a result of production, either domestically or abroad, in the current period or in a previous one. The term products is thus a synonym for goods and services.
- 3.28 Distributive transactions consist of transactions by which the value added generated by production is distributed to labour, capital and government and transactions involving the redistribution of income and wealth (taxes on income and wealth and other transfers). The SNA draws a distinction between current and capital transfers, with the latter deemed to redistribute saving or wealth rather than income. (This distinction is discussed in detail in chapter [89](#).)
- 3.29 Transactions in financial instruments (or financial transactions) refer to the net acquisition of financial assets or the net incurrence of liabilities for each type of financial instrument. Such changes often occur as counterparts of non-financial transactions. They also occur as transactions involving only financial instruments. Transactions in contingent assets and liabilities are not considered transactions in the SNA (see chapter [112](#)).
- 3.30 Other accumulation entries cover transactions and other economic flows not previously taken into account that change the quantity or value of assets and liabilities. They include acquisitions less disposals of non-produced non-financial assets, other economic flows of non-produced assets, such as discovery ~~or depletion~~ of subsoil resources or transfers of other natural resources to economic activities, the effects of non-economic phenomena such as natural disasters and political events (wars for example) and finally, they include holding gains or losses, due to changes in prices, and some minor items (see chapter [1213](#)).

### **Characteristics of transactions in the SNA**

- 3.31 In order to provide more useful answers to the questions raised in the analysis of flows, some transactions are not recorded in the SNA as they might be directly observed. The SNA often uses categories which are more closely identified with an economic concept. For example, gross fixed capital formation, a subcategory of transactions in goods and services, is broader than the limited coverage thought of as “purchases of fixed assets”. In order to be closer to an economic concept, it covers the acquisition of new and existing fixed assets, through purchases, barter transactions or own-account capital formation, less the disposal of existing assets, through sales or barter transactions.
- 3.32 As the previous example shows, the SNA also often uses categories which are compacted, that is, are the result of combining a number of elementary transactions. The term changes in inventories, for example, refers to the difference between entries into and withdrawals from inventories and recurrent losses. The same netting happens for transactions in financial instruments. All transactions in an instrument held as an asset (or as a liability) are grouped under the heading of this instrument. The item “loans”, for example, covers issuance of new loans, conversions, and redemptions or cancellations of existing loans. Finally, some categories of transactions in the SNA, such as distributive transactions concerning interest and ~~net~~ non-life insurance premiums, require an actual transaction to be split into parts.

### 3. Assets and liabilities

- 3.33 Assets and liabilities are the components of the balance sheets of the total economy and institutional sectors. In contrast to the accounts that show economic flows, a balance sheet shows the stocks of assets and liabilities held at one point in time by each unit or sector or the economy as a whole. Balance sheets are normally constructed at the start and end of an accounting period but they can in principle be constructed at any point in time. However, stocks result from the accumulation of prior transactions and other flows, and they are modified by future transactions and other flows. Thus stocks and flows are closely related.
- 3.34 The coverage of assets is limited to those assets which are subject to ownership rights and from which economic benefits may be derived by their owners by holding them or using them in an economic activity as defined in the SNA. Consumer durables, human capital, and also those natural resources that are not capable of bringing economic benefits to their owners, are outside the scope of assets in the SNA.
- 3.35 The classification of assets distinguishes, at the first level, financial and non-financial (produced and non-produced) assets (see chapter 4.11). Most non-financial assets generally serve two purposes. They are primarily objects usable in economic activity and, at the same time, serve as stores of value. Financial assets are necessarily and primarily stores of value, although they may also fulfil other functions.

### 4. Products and producing units

#### Products

- 3.36 Goods and services, also called products, are the result of production. They are exchanged and used for various purposes; as inputs in the production of other goods and services, as final consumption or for investment. The SNA makes a conceptual distinction between market, own final use and non-market goods and services, allowing in principle any kind of good or service to be any of these three types.

#### Producing units

- 3.37 Institutional units such as corporations may produce various types of goods and services. These goods and services result from processes of production which may differ as regards materials and supplies consumed, kind of equipment and labour employed and techniques used. In other words, they may come from different production activities. In order to study transactions in goods and services in detail, the SNA uses the **Central Product Classification Version 2 (CPC) 2 (United Nations 2008b)**.
- 3.38 To study production and production functions in detail, it is necessary to refer to more homogeneous units. The ideal solution would be to be able to identify and observe units that engaged in only one production activity. As it is also necessary to give a picture of the distribution of production in space, this unit should also be in a single location or nearby sites. In practice, it is not always feasible to distinguish units of production engaged in a single activity, and for which the necessary data are available, inside multiactivity units. Inevitably, therefore, some secondary activities that cannot be separated are covered. For that reason, for the detailed study of production, the SNA uses a unit which, in addition to its principal activity, may cover secondary activities. This unit is the establishment.
- 3.39 Establishments that have the same principal activity are grouped into industries according to the **International Standard Industrial Classification of All Economic Activities Revision 4 (ISIC, Rev.4) (United Nations, 2008a)**.
- 3.40 Given the fundamental role played by the market in modern economies, the SNA distinguishes, as an essential feature of its structure, between establishments that are market producers, producers for own final use and non-market producers. Market establishments produce goods and services mostly for sale at prices that are economically significant. Producers for own final use produce goods and services mostly for final consumption or fixed capital formation by the owners of the enterprises in which they are produced. Non-market establishments supply most of the goods and services they produce without charge or at prices that are not economically significant.
- 3.41 There is a hierarchical relationship between institutional units and establishments. An institutional unit

contains one or more entire establishment(s); an establishment belongs to one and only one institutional unit.

- 3.42 [The process of producing goods and services, including total supply and total use of goods and services, classified by products and, for the domestic production process, by industries, is the principal focus of supply and use tables \(see chapter 15\).](#)

## 5. Purposes

- 3.43 The concept of purpose, or function, relates to the type of need a transaction or group of transactions aims to satisfy or the kind of objective it pursues. Transactions are first analysed in the SNA according to their nature. Then, for certain sectors or kind of transactions, they are analysed from the expenditure side, by purpose, answering the earlier question “for what purpose?” Classification by purpose is described in the context of the supply and use tables in chapter [1415](#).

## C. Rules of accounting

### 1. Introduction

#### Terminology for the two sides of the accounts

- 3.44 The SNA utilizes the term [resourcesrevenues](#) for transactions which add to the amount of economic value of a unit or a sector. For example, wages and salaries are a [resourceerevenue](#) for the unit or sector receiving them. [ResourcesRevenues](#) are by convention shown on the right-hand side of the current accounts. The left-hand side of the accounts, which includes transactions that reduce the amount of economic value of a unit or sector, is termed [usesexpenditures](#). To continue the example, wages and salaries are an [an useexpenditure](#) for the unit or sector that must pay them.
- 3.45 Balance sheets are presented with liabilities and net worth (the difference between assets and liabilities) on the right-hand side and assets on the left-hand side. Comparing two successive balance sheets gives changes in liabilities and net worth and changes in assets.
- 3.46 The accumulation accounts and balance sheets being fully integrated, the right-hand side of the accumulation accounts is called changes in liabilities and net worth and their left-hand side is called changes in assets. In the case of transactions in financial instruments, the changes in liabilities are often referred to as (net) incurrence of liabilities and the changes in assets as (net) acquisition of financial assets.

#### Change of ownership and the recording of transactions in goods and services

- 3.47 A good may be held and be processed by a unit that does not have title to the ownership of the good. One example is a good given to a unit for repair. The activity of the repairer is only the cost incurred to effect the repair and the cost of the good being repaired does not feature in the accounts of the repairer. This is obvious and uncontroversial for every day types of repairs such as repairing shoes or a vehicle. However, the same principle also applies when one unit processes goods on behalf of another unit. For example, one unit may receive a set of components from another unit and return the assembled product.
- 3.48 Within the SNA, a distinction is made between legal ownership and economic ownership. The criterion for recording the transfer of products from one unit to another in the SNA is that the economic ownership of the product changes from the first unit to the second. The legal owner is the unit entitled in law to the benefits embodied in the value of the product. A legal owner may, though, contract with another unit for the latter to accept the risks and rewards of using the product in production in return for an agreed amount that has a smaller element of risk in it. Such an example is when a bank legally owns a plane but allows an airline to use it in return for an agreed sum. It is the airline that then must take all the decisions about how often to fly the plane, to where and at what cost to the passengers. The airline is then said to be the economic owner of the plane even though the bank remains the legal owner. In the accounts, it is the airline and not the bank that is shown as purchasing the plane. At the same time, a loan, equal in value to payments due to the bank for the duration of the agreement between them is imputed as being made by the bank to the airline.



- 3.49 The same principle applies to goods sent abroad for processing. If the processor is not concerned about how and where and for how much the item he is assembling is sold, the economic ownership remains with the legal owner. Even though the goods may physically pass from one country to another, they are not treated as imports and exports because the economic ownership has not changed.
- 3.50 Within a large enterprise with several specialized establishments, it is not immediately obvious whether a delivery of goods from one establishment to another is to be recorded or not. Since all the establishments have the same ownership, the distinction between economic and legal ownership needs refining. The criterion used is to record a delivery when the receiving unit assumes the responsibility, in terms of economic risks and rewards, of the items delivered. If the receiving unit does not accept this responsibility, for example by returning the processed items to the original sending unit, then it is only performing a service on the items and they are not recorded as being delivered from the first unit to the second.

### **Double entry or quadruple entry accounting**

- 3.51 For a unit or sector, national accounting is based on the principle of double entry, as in business accounting. Each transaction must be recorded twice, once as a [resource-revenue](#) (or a change in liabilities) and once as an [use-expenditure](#) (or a change in assets). The total of transactions recorded as [resources-revenues](#) or changes in liabilities and the total of transactions recorded as [use-expenditures](#) or changes in assets must be equal, thus permitting a check of the consistency of the accounts. Economic flows that are not transactions have their counterpart directly as changes in net worth. This is shown in section D below (and also in chapter [4213](#), which describes the other changes in the volume of assets [and liabilities](#) account and the revaluation account).
- 3.52 The implications of the double entry principle are easy to grasp in a number of cases. A household's purchase on credit of a consumer good will appear as an [use-expenditure](#) under final consumption expenditure and as an incurrence of a liability under loans. If this good is paid for in cash, however, the picture is less simple. The counterpart of an [use-expenditure](#) under final consumption is now a negative acquisition of assets, under currency and deposits. Other transactions are more complicated. Output of goods is recorded as a [resource-revenue](#) in the account of a producer, its counterpart among [use-expenditures](#) is recorded as a positive change in inventories. When the output is sold, there is a negative change in inventories, that is, a negative acquisition of non-financial assets, balanced by a positive acquisition of financial assets, for instance under currency and deposits. In many instances, as explained earlier, the difficulty of seeing how the double entry principle applies is due to the fact that the categories of transactions in the SNA are compacted.
- 3.53 In principle, the recording of the consequences of an action as it affects all units and all sectors is based on a principle of quadruple entry accounting, because most transactions involve two institutional units. Each transaction of this type must be recorded twice by each of the two transactors involved. For example, a social benefit in cash paid by a government unit to a household is recorded in the accounts of government as an [use-expenditure](#) under the relevant type of transfers and a negative acquisition of assets under currency and deposits; in the accounts of the household sector, it is recorded as a [resource-revenue](#) under transfers and an acquisition of assets under currency and deposits. The principle of quadruple entry accounting applies even when the detailed from-whom-to-whom relations between sectors are not shown in the accounts. Correctly recording the four transactions involved ensures full consistency in the accounts.
- 3.54 As noted in the introduction, the data available to the national accounts compiler may not in practice initially satisfy the consistency requirements of the SNA. The accounts of the nation are not kept in the same way as a business unit or government, that is, by actually recording all flows occurring in a given period. They rely on accounts of various units that are not always consistent, complete or even available. For household accounts in particular, other statistics such as those from household surveys have to be used. Reconciling disparate data sources within the consistency constraints imposed by the quadruple entry accounting principle is fundamental to compiling a complete set of accounts.

## **2. Time of recording**

- 3.55 One implication of the quadruple entry accounting principle is that transactions, or other flows, have to be recorded at the same point of time in the various accounts in question for both units involved. The same

applies to stocks of financial assets and liabilities.

- 3.56 The general principle in national accounting is that transactions between institutional units have to be recorded when claims and obligations arise, are transformed or are cancelled. This time of recording is called an accrual basis. Transactions internal to one institutional unit are equivalently recorded when economic value is created, transformed or extinguished. Generally speaking, all transactions, however they are described, can always be viewed as dealing with economic value.
- 3.57 One has thus to distinguish carefully between the point in time at which a transaction and the corresponding cash movement take place. Even when a transaction (a purchase or sale of a good, for example) and the payment or receipt are simultaneous, the two aspects exist. The purchaser incurs a liability, the seller acquires a claim as a counterpart of the delivery of the good. Then the liability and the claim are cancelled by the payment. In most cases there is a delay between the actual transaction and the corresponding payment or receipt. In principle, national accounts record actual transactions on an accrual basis, not on a cash basis. Conceptually national accounts follow the same principle as business accounting.
- 3.58 Although the principle is clear, its implementation is far from simple. Institutional units do not always apply the same rules. Even when they do, differences in actual recording may occur for practical reasons such as delays in communication. Consequently, transactions may be recorded at different times by the transactors involved, sometimes even in a different accounting period. Discrepancies exist which national accounts must eliminate by after-the-fact adjustments. In addition, because the time at which a claim or liability arises is not always unambiguous, further implementation problems arise. The rules and conventions adopted in the SNA for particular transactions are specified in subsequent chapters, in particular in chapter 34.

### 3. Valuation

#### General principles

- 3.59 It also follows from the quadruple entry accounting principle that a transaction must be recorded at the same value through all the accounts of both sectors involved. The same principle applies to assets and liabilities. It means that a financial asset and its liability counterpart have to be recorded for the same amount in the creditor and the debtor accounts.
- 3.60 Transactions are valued at the actual price agreed upon by the transactors. Market prices, or exchange values, are thus the basic reference for valuation in the SNA. In the absence of market transactions, valuation is made according to costs incurred (for example, non-market services produced by government) or by reference to market prices for analogous goods or services (for example, services of owner-occupied dwellings).
- 3.61 Assets and liabilities are recorded at current values at the time to which the balance sheet relates, not at their original valuation. Theoretically, national accounts are based on the assumption that the values of assets and liabilities are continuously up-rated to current values, even if in fact up-rating occurs only periodically. The appropriate valuation basis for assets and liabilities is the value at which they might be bought in markets at the time the valuation is required. Ideally, values observed in markets or estimated from observed market values should be used. ~~When~~ However, often this is not possible, and the current values may need to be approximated for balance sheet valuation in two other ways: (i) by accumulating and revaluing transactions over time, or (ii) by estimating the discounted present value of future ~~benefits~~ returns expected from a given asset. The latter methods are of particular relevance for valuing non-financial assets (see also the annex to chapter 134 and chapter 14).
- 3.62 Internal transactions are valued at current values at the time these transactions occur, not at the original valuation. These internal transactions include entries into inventories, withdrawals from inventories, intermediate consumption, ~~and consumption of fixed capital~~ depreciation and depletion.

#### Methods of valuation for valuing output and transactions in goods and services

- 3.63 Various methods exist of treating the effect of taxes on products, subsidies on products and trade and transport margins on the valuation of transactions on products (goods and services).

- 3.64 The preferred method of valuation of output is at basic prices, although producers' prices may be used when valuation at basic prices is not feasible. The distinction is related to the treatment of taxes and subsidies on products. Basic prices are prices before taxes on products are added and subsidies on products are subtracted. Producers' prices include, in addition to basic prices, taxes less subsidies on products other than value added type taxes. Thus three valuations of output may be encountered; at basic prices, at producers' prices in the absence of value added type taxes, and at producers' prices in the presence of value added type taxes.
- 3.65 In the same set of accounts and tables, all transactions on the uses of goods and services (such as final consumption, intermediate consumption, capital formation) are valued at purchasers' prices. Purchasers' prices are the amounts paid by the purchasers, excluding the deductible part of value added type taxes. Purchasers' prices are the actual costs to the users.
- 3.66 The various methods of valuing output, with intermediate consumption always at purchasers' prices, imply consequences for the content and uses of value added (the difference between output and intermediate consumption) by a producer, a sector or an industry. When output is valued at basic prices, value added includes besides [primaryearned](#) incomes due to labour and capital, only taxes less subsidies on production other than taxes less subsidies on products; when output is valued at producers' prices, value added includes taxes, less subsidies, on products other than value added type taxes (which means all taxes, less subsidies, on products when value added type taxes do not exist). A complementary definition of value added is at factor cost, which excludes taxes on production of any kind, though this concept is not used explicitly in the SNA.

## Volume measures and measures in real terms

- 3.67 Up until this point, only current values have been described. In addition, the SNA includes calculation of some transactions in volume terms, that is, the use of the systems of prices which prevailed in a past period. The changes over time in the current values of flows of goods and services and of many kinds of assets can be decomposed into changes in the prices of these goods and services or assets and changes in their volumes. Flows or stocks in volume terms take into account the changes in the price of each item covered. However, many flows or stocks do not have price and quantity dimensions of their own. Their current values may be deflated by taking into account the change in the prices of some relevant basket of goods and services or assets, or the change in the general price level. In the latter case, flows or stocks are said to be in real terms (that is, they represent values at constant purchasing power). For example, the SNA provides for the calculation of income in real terms. Interspatial comparisons raise similar but even more complex problems than inter-temporal comparisons because countries at different stages of development are involved.
- 3.68 Both inter-temporal and interspatial measures are discussed in chapter [4518](#).

## 4. Consolidation and netting

### Consolidation

- 3.69 Consolidation may cover various accounting procedures. In general, it refers to the elimination from both [usesexpenditures](#) and [resourcesrevenues](#) of transactions which occur between units that are grouped together and to the elimination of financial assets and the counterpart liabilities.
- 3.70 As a matter of principle, flows between constituent units within subsectors or sectors are not consolidated. However, consolidated accounts may be compiled for complementary presentations and analyses. Even then, transactions appearing in different accounts are never consolidated so that the balancing items are not affected by consolidation. Consolidation may be useful, for example, for the government sector as a whole, thus showing the net relations between government and the rest of the economy. This possibility is elaborated in chapter [2230](#).
- 3.71 Accounts for the total economy, when fully consolidated, give rise to the rest of the world account (external transactions account).

## Netting

- 3.72 Consolidation must be distinguished from netting. For current transactions, netting refers to offsetting [uses/expenditures](#) against [resources/revenues](#). The SNA does this only in a few specific instances; for example, taxes on products may be shown net of subsidies on products. For changes in assets or changes in liabilities, netting may be envisaged in two ways. The first case is where various types of changes in assets (for example, entries in inventories and withdrawals from inventories) or various types of liabilities (for example, incurrence of a new debt and redemption of an existing debt) are netted. The second case is where changes in financial assets and changes in liabilities (or, in the balance sheet, financial assets and liabilities themselves) related to a given financial instrument are netted. As a matter of principle, the SNA discourages netting beyond the degree shown in the classifications of the SNA. Netting financial assets (changes in financial assets) against liabilities (changes in liabilities) is especially to be avoided. Netting is discussed in chapters [34](#) and [12](#).

### *The use of “net”*

- 3.73 With very few exceptions, in the SNA the term “net” is used only in connection with the balancing items of the accounts in juxtaposition to the term “gross”. The exceptions are the use of the expressions net worth, [and](#) net borrowing [and/or](#) net lending in relation to the accumulation accounts [and net premiums in the context of insurance](#).

## D. The accounts

### 1. Introduction

- 3.74 With the tools introduced in sections B and C above, all flows and stocks can be recorded. This is done in the accounts of the SNA. Each account relates to a particular aspect of economic behaviour. It contains flows or stocks and shows the entries for an institutional unit, a group of units such as a sector or the rest of the world. Typically the entries in the account do not conceptually balance so a balancing item must be introduced. Balancing items are meaningful measures of economic performance in themselves. When calculated for the whole economy, they constitute significant aggregates.
- 3.75 The accounts can be divided into two main classes:
- The [integrated sequence of](#) economic accounts; and
  - The other parts of the [integrated framework/accounting structure](#).
- 3.76 The [integrated sequence of](#) economic accounts use the first three of the conceptual elements of the SNA described in section B; (institutional units and sectors, transactions and assets and liabilities) together with the concept of the rest of the world to form a wide range of accounts. These include the full sequence of [economic](#) accounts for institutional sectors, separately or collectively, the rest of the world and the total economy. The full sequence of [economic](#) accounts is described briefly below. A full description of each of the accounts concerned is the subject matter of chapters [67](#) to [1314](#). [The rest of the world account is described in chapter 26.](#)
- 3.77 The other parts of the [integrated framework/accounting system](#) bring in the three other conceptual elements from section B, that is, establishments, products and purposes as well as [population and employment](#). The accounts covered here include the supply and use framework, which is the subject of chapter [1415](#), [population and employment/labour market](#) tables which are described in chapter [1916](#), [capital services \(chapter 17\)](#), the three dimensional analysis of financial transactions and stocks of financial assets and liabilities, showing the relations between sectors (from-whom-to-whom) described in chapter [2737](#) and functional analyses, whereby certain transactions of institutional sectors are presented according to the purpose they serve. These appear in a number of chapters including chapter [1415](#).
- 3.78 The sections following are devoted to:

- The full sequence of [economic](#) accounts;
- An integrated presentation of the accounts including the goods and services account, the accounts for the rest of the world and an examination of the aggregates of the SNA; and
- The other parts of the [integrated framework accounting structure](#).

## 2. The full sequence of [economic](#) accounts

- 3.79 Before presenting the full sequence of [economic](#) accounts for institutional units and sectors, some preliminary remarks are useful. The purpose of this subsection is to explain the accounting structure of the SNA in general, not to show the precise content of the accounts for each specific unit or sector. The accounting structure is uniform throughout the SNA. It applies to all institutional units, subsectors, sectors and the total economy. However, some accounts may not be relevant for certain sectors. Similarly, not all transactions are relevant for each sector and, when they are, they may constitute [resources revenues](#) for some sectors and [uses expenditures](#) for others.
- 3.80 Another remark relates to the way the classification of transactions is used when presenting the general structure of the accounts. Section B above shows only the main categories of transactions, not the detailed ones which are displayed in the relevant chapters of the publication. However, in order to make the accounts clear, it is necessary to include a number of specific transactions. This is done by using the actual classification of transactions in the SNA at a level of detail sufficient for a good understanding of the accounts. Definitions of these transactions are not given at this stage unless absolutely necessary but appear in subsequent chapters.
- 3.81 It is also worth noting that balancing items can be expressed gross or net, the difference being ~~the~~ [consumption of fixed capital depreciation and depletion](#). Conceptually, net balancing items are much more meaningful. However, gross concepts, specifically gross aggregates, are widely used and gross accounts are often estimated more easily, ~~accurately~~ and promptly than the net ones. In order to accommodate both solutions and to ease the integrated presentation of the accounts and aggregates, a double presentation of balancing items is allowed.
- 3.82 Finally, it has to be said that the sequence of [economic](#) accounts shows the accounting structure of the SNA; it is not necessarily a format for publishing the results.

### The three sections of the sequence of accounts

- 3.83 The accounts are grouped into three categories: current accounts, accumulation accounts and balance sheets.
- 3.84 Current accounts deal with production, the generation, distribution and use of income. Each account after the first starts with the balancing item of the previous one recorded as [resources revenues](#). The last balancing item is saving which, in the context of the SNA, is that part of income originating in production, domestically or abroad, that is not used for final consumption.
- 3.85 Accumulation accounts cover changes in assets and liabilities and changes in net worth (the difference for any institutional unit or group of units between its assets and liabilities). The accounts concerned are the capital account, financial account, the other changes in the volume of assets [and liabilities](#) account and the revaluation account. The accumulation accounts show all changes that occur between two balance sheets.
- 3.86 Balance sheets present stocks of assets and liabilities and net worth. Opening and closing balance sheets are included with the full sequence of [economic](#) accounts. Even when balance sheets are not compiled, a clear understanding of the conceptual relationship between accumulation accounts and balance sheets is necessary if the accumulation accounts themselves are to be correctly elaborated.

### The production account

- 3.87 The production account (shown in table [23.1](#)) is designed to show value added as one of the main balancing

items in the SNA. Consequently, it does not cover all transactions linked with the production process, but only the result of production (output) and the using up of goods and services when producing this output (intermediate consumption). Intermediate consumption does not cover the progressive wear and tear of fixed capital and the depletion of non-produced natural resources. The latter ~~is~~ recorded as ~~a~~ separate transactions (~~consumption of fixed capital~~ depreciation and depletion) which ~~is~~ constitute the difference between the gross and net balancing items.

### Table 23.1: The production account

- 3.88 As already explained in section C, different types of valuation of output may be used according to the choice made between basic prices and producers' prices and, in the latter case, the existence or absence of value added type taxes. Consequently, the extent to which taxes (less subsidies) on products are included in value added differs.
- 3.89 All institutional sectors have a production account. However, in the production account of institutional sectors, output and intermediate consumption are shown in total only, not broken down by products.
- 3.90 The balancing item of the production account is value added. Like all balancing items in the current accounts, value added may be measured gross or net.

### The distribution of income accounts

- 3.91 The process of distribution and redistribution of income is so important that it is worth distinguishing various steps and depicting them separately in different accounts. The distribution of income is decomposed into three main steps: ~~primary~~ distribution of earned income, ~~secondary~~ distribution of transfer income other than social transfers in kind, and ~~redistribution~~ of social transfers in kind. As long as all kinds of distributive current transactions included in the SNA are actually measured, increasing the number of accounts adds very little to the work already done, but it allows the introduction of balancing items that are meaningful concepts of income.

#### *The ~~primary~~ distribution of earned income account*

- 3.92 The ~~primary distribution of earned~~ income account shows how gross value added is distributed to labour, capital, government and, where necessary, flows to and from the rest of the world. In fact the ~~primary distribution of earned~~ income account is never presented as a single account but always as two sub-accounts. The first of these is the generation of earned income account (shown in table 23.2) in which value added is distributed to labour (~~compensation~~ remuneration of employees), capital and government (taxes, less subsidies, on production and imports ~~less subsidies~~ as far as they are included in the valuation of output). The distribution to capital (and implicitly the compensation of the labour input provided by self-employed persons) appears in the balancing item in this account, operating surplus or mixed income.

### Table 23.2: The generation of earned income account

- 3.93 The allocation of ~~primary~~ earned income account (table 23.3) shows the remaining part of the ~~primary~~ distribution of earned income. It contains operating surplus or mixed income as a ~~resource~~ revenue. It records, for each sector, property income receivable and payable, and ~~compensation~~ remuneration of employees and taxes, less subsidies, on production and imports receivable by households and government, respectively. Since transactions of this kind may appear in the rest of the world account, these must be included also.

### Table 23.3: The allocation of primary earned income account

- 3.94 The balancing item of the allocation of primary earned income account (and of the complete primary distribution of earned income account) is the balance of primary earned income.
- 3.95 For non-financial and financial corporations, the allocation of primary earned income account is further subdivided in order to show an additional balancing item, entrepreneurial income, which is closer to the concept of current profit before tax familiar in business accounting. This balancing item and the related sub-accounts are shown in chapter 78.

#### *The secondary distribution of income transfers other than social transfers in kind account*

- 3.96 The ~~secondary distribution of income~~ transfers other than transfers in kind account (table 23.4) covers redistribution of income through current transfers other than social transfers in kind, ~~often involving made by~~ government and NPISHs ~~to households~~. Social transfers in kind are recorded in the ~~redistribution of income~~ social transfers in kind account. The ~~secondary distribution of income~~ transfers other than social transfers in kind account records as resources revenues, in addition to balance of primary earned incomes, current taxes on income, wealth, etc. and other current transfers except social transfers in kind. On the ~~use~~ expenditures side, the same types of transfers are also recorded. Since these transfers are resources revenues for some sectors and use expenditures for others also, their precise content varies from one sector to another.

### Table 23.4: The ~~secondary distribution of income~~ transfers other than transfers in kind account

- 3.97 It is worth explaining in some detail here the way social contributions are recorded in the SNA. Although employers normally pay social contributions on behalf of their employees directly to the social insurance schemes, in the SNA these payments are treated as if they were made to employees who then make payments to social insurance schemes. In terms of the accounts, this means that they first appear as a component of compensation remuneration of employees in the use expenditure side of the generation of earned income account of employers and the resource revenue side of the allocation of primary earned income account of households (adjusted for external flows in compensation remuneration of employees). They are then recorded as use expenditures in the ~~secondary distribution of income~~ transfers other than social transfers in kind account of households (and possibly of the rest of the world), and as resources revenues of the sectors managing social insurance schemes. All employers' social contributions follow this route. This way of recording transactions as if they followed another course is often called "rerouting".
- 3.98 The balancing item of the ~~secondary distribution of income~~ transfers other than social transfers in kind account is disposable income. For households, this is the income that can be used for final consumption expenditure and saving. For non-financial and financial corporations, disposable income is income not distributed to owners of equity remaining after taxes on income are paid.

#### *The redistribution of income social transfers in kind account*

- 3.99 Because of the nature of the transactions concerned, this account is significant only for government, households and NPISHs. Social transfers in kind cover two more elements in the portrayal of the redistribution of income process. The first of these is non-market production by government and NPISHs of individual services and the second is the purchase by government and NPISHs of goods and services for transfer to households free or at prices that are not economically significant. The ~~redistribution of income~~ social transfers in kind account (table 23.5) records social transfers in kind as resources revenues for households and use expenditures of government and NPISHs.

### Table 23.5: The redistribution of incomesocial transfers in kind account

- 3.100 The purpose of this account is fourfold. In the first place it aims at giving a clearer picture of the role of government and NPISHs as ~~the~~ providers of goods and services to individual households. Secondly, it delivers a more complete measure of household income. Thirdly, it facilitates international comparisons and comparisons over time when economic and social arrangements differ or change. Fourthly, it gives a more complete view of the redistribution process between subsectors or other groupings of households. Redistribution of income via social transfers in kind can be looked upon as a third way of distributing income, in addition to the distribution of earned income and the in-kind is a tertiary redistribution of income via income transfers other than social transfers in kind.
- 3.101 The balancing item of the redistribution of incomesocial transfers in kind account is ~~adjusted~~ disposable income adjusted for social transfers in kind.

#### *The use of income accounts*

- 3.102 The use of income account exists in two variants, the use of disposable income account (table 23.6) and the use of ~~adjusted~~ disposable income adjusted for social transfers in kind account (table 23.7). The use of disposable income account has the balancing item from the ~~secondary distribution of income~~ transfers other than social transfers in kind account, disposable income, as a ~~resource~~ revenue. The use of ~~adjusted~~ disposable income adjusted for social transfers in kind account has the balancing item from the ~~redistribution of incomesocial transfers~~ in kind account, ~~adjusted~~ disposable income adjusted for social transfers in kind, as a ~~resource~~ revenue. Both accounts show how, for the ~~case~~ relevant sectors that undertake final consumption (that is, government, NPISHs and households), disposable income or ~~adjusted~~ disposable income adjusted for social transfers in kind is allocated between final consumption and saving. In addition, both variants of the use of income account include, for households and for pension funds, an adjustment item for the change in pension entitlements which relates to the way transactions between households and pension funds are recorded in the SNA. This adjustment item, which is explained in chapter 910, is not discussed here.

### Table 23.6: The use of disposable income account

### Table 23.7: The use of ~~adjusted~~ disposable income adjusted for social transfers in kind account

- 3.103 The difference between the ~~resources~~ revenues of the two variants of the use of income account depends on which balancing item is carried down from an earlier account. In terms of ~~uses~~ expenditures, the difference is between whether final consumption expenditure or actual final consumption is recorded. The former is recorded in the use of disposable income account; the latter in the use of ~~adjusted~~ disposable income adjusted for social transfers in kind account.
- 3.104 Final consumption expenditure covers transactions in final consumption of goods and services for which a sector is the ultimate bearer of the expense. Government, ~~and~~ NPISHs and the central bank produce non-market goods and services in their production account, where intermediate consumption and ~~compensation~~ remuneration of employees are recorded as ~~uses~~ expenditures. Final consumption expenditure of these producers relates to the value of their output of non-market goods and services, less their receipts from the sale of non-market goods and services at prices which are not economically significant, and possibly, less the sales of market goods and services which are produced as a secondary activity. However, it also covers goods and services that are purchased by government or NPISHs for ultimate transfer, without transformation, to households.
- 3.105 Actual final consumption of households covers goods and services which are effectively available for



individual consumption by households, regardless of whether the ultimate bearer of the expense is government, NPISHs or households themselves. Actual final consumption of government and NPISHs is equal to consumption expenditure less social transfers in kind, or, in other words, collective consumption. The central bank also has collective consumption, but typically does not transfer individual goods and services at prices which are not economically significant to households.

- 3.106 At the level of total economy, disposable income and ~~adjusted~~ disposable income adjusted for social transfers in kind are equal, as are final consumption expenditure and actual final consumption. They differ only when considering the relevant sectors. For each sector, the difference between final consumption expenditure and actual final consumption is equal to social transfers in kind, provided or received. It is also equal to the difference between disposable income and ~~adjusted~~ disposable income adjusted for social transfers in kind. Thus the figures for saving are the same in both variants of the use of income account as income on the ~~resources~~revenues side and consumption on the ~~uses~~expenditures side differ by the same amount.
- 3.107 The balancing item of the use of income account, in its two variants, is saving. Saving ends the subsequence of current accounts.

### **The accumulation accounts**

- 3.108 Saving, being the balancing item of the last current account is the starting element of accumulation accounts.
- 3.109 A first group of accounts covers transactions which would correspond to all changes in assets or liabilities and net worth if saving and capital transfers were the only sources of changes in net worth. The accounts concerned are the capital account and the financial account. These two accounts are distinguished in order to show a balancing item which is useful for economic analysis, that is, net lending or net borrowing.
- 3.110 A second group of accounts relates to changes in assets, liabilities and net worth due to other factors. Examples are discoveries ~~or depletion~~ of subsoil resources, destruction by political events, such as war, or by natural disasters, such as earthquakes. Such factors actually change the volume of assets, either physically or quantitatively. Other changes in assets and liabilities may also be linked with changes in the level and structure of prices. In the latter case, only the value of assets and liabilities is modified, not their volume. Thus the second group of accumulation accounts is subdivided between an account for other changes in volume of assets and liabilities and an account for revaluation.

#### *The capital account*

- 3.111 The capital account (table 23.8) records transactions linked to acquisitions of non-financial assets and capital transfers involving the redistribution of wealth. The right-hand side includes saving, net, and capital transfers receivable and capital transfers payable (with a minus sign) in order to arrive at that part of changes in net worth due to saving and capital transfers. The capital account includes among ~~uses~~expenditures the various types of investment in non-financial assets. Because ~~consumption of fixed capital~~depreciation is a negative change in fixed assets, it is recorded, with a negative sign, on the left-hand side of the account. The same holds for the depletion of natural resources. Recording ~~gross fixed capital formation~~acquisitions, less disposals, of produced non-financial assets less ~~consumption of fixed capital~~depreciation on the same side is equivalent to recording net ~~fixed~~ capital formation of produced non-financial assets.

#### **Table 23.8: The capital account**

- 3.112 The balancing item of the capital account is called net lending when positive and measuring the net amount a unit or a sector finally has available to finance, directly or indirectly, other units or sectors, or net borrowing when negative, corresponding to the amount a unit or a sector is obliged to borrow from others.

#### *The financial account*

- 3.113 The financial account (table 23.9) records transactions in financial instruments for each financial instrument.

These transactions in the SNA show net acquisition of financial assets on the left-hand side or net incurrence of liabilities on the right-hand side.

### **Table 23.9: The financial account**

- 3.114 The balancing item of the financial account is again net lending or net borrowing, which appears this time on the right-hand side of the account. In principle, net lending or net borrowing is measured identically in both the capital and financial accounts. In practice, achieving this identity is one of the most difficult tasks in compiling national accounts.

#### *The other changes in the volume of assets and liabilities account*

- 3.115 The other changes in the volume of assets and liabilities account (table 23.10) records the effect of exceptional events that cause not only the value but also the volume of assets and liabilities to vary. In addition to the kind of events referred to above, such as the consequences of war or earthquakes, this account also includes some adjustment elements such as changes in classification and structure which may or may not have an influence on net worth (see chapter 4213). The balancing item, changes in net worth due to other changes in the volume of assets and liabilities, is recorded on the right-hand side.

### **Table 23.10: The other changes in the volume of assets and liabilities account**

#### *The revaluation account*

- 3.116 The revaluation account (table 23.11) records holding gains or losses. It starts with nominal holding gains and losses. This item records the full change in value of the various assets or liabilities due to the change in the prices of those assets and liabilities since the beginning of the accounting period or the time of entry into stock and the time of exit from stock or the end of the accounting period.

### **Table 23.11: The revaluation account**

- 3.117 Just as transactions and other flows in assets appear on the left-hand side of the account and transactions in liabilities on the right-hand side, so nominal gains or losses on assets appear on the left-hand side of the revaluation account, while nominal gains and losses on financial liabilities are recorded on the right-hand side. A positive revaluation of financial liabilities is equivalent to a nominal holding loss; a negative revaluation of liabilities is equivalent to a nominal holding gain.
- 3.118 The balancing item of the revaluation account is changes in net worth due to nominal holding gains and losses.
- 3.119 Nominal holding gains and losses are subdivided between two components. The first shows the revaluation in proportion to the general price level which is obtained by applying, during the same periods of time, an index of the change in general price level to the initial value of all assets or liabilities, even to those that are fixed in monetary terms. The results of this operation are called neutral holding gains and losses because all assets and liabilities are revalued so as to preserve exactly their purchasing power.
- 3.120 The second component of holding gains and losses shows the difference between nominal holding gains and losses and neutral holding gains and losses. This difference is called real holding gains and losses. If the

nominal holding gains and losses are higher than the neutral holding gains and losses, there is a real holding gain, due to the fact that on average the actual prices of the assets in question have increased more (or decreased less) than the general price level. In other words, the relative prices of its assets have increased. Similarly, a decrease in relative prices of assets leads to a real holding loss.

- 3.121 Each of the three types of holding gains or losses are subdivided according to the main groups of assets and liabilities, a decomposition which is necessary even in a simplified accounting presentation. Changes in net worth due to nominal holding gains and losses can be subdivided into changes due to neutral holding gains and losses and changes due to real holding gains and losses.

### Balance sheets

- 3.122 The opening and closing balance sheets (table 23.12), display assets on the left-hand side, [and](#) liabilities and net worth on the right-hand side. Assets and liabilities, as previously explained, are valued at the prices of the date a balance sheet is established.

### Table 23.12: The opening balance sheet, changes in assets and liabilities and closing balance sheet

- 3.123 The balancing item of a balance sheet is net worth, the difference between assets and liabilities. Net worth is equivalent to the present value of the stock of economic value a unit or a sector holds.
- 3.124 The changes in the balance sheet recapitulate the content of the accumulation accounts, that is, the entry for each asset or liability is the sum of the entries in the four accumulation accounts corresponding to that asset or liability. The changes in net worth can be calculated from these entries but must by definition be equal to the changes in net worth due to saving and capital transfers from the capital account plus changes in net worth due to other changes in the volume of assets [and liabilities](#) from the other changes in the volume of assets [and liabilities](#) account plus nominal holding gains and losses from the revaluation account.
- 3.125 Conceptually, the entries for the closing balance sheet are equal, asset by asset and liability by liability to the entries in the opening balance sheet plus the changes recorded in the four accumulation accounts.

### 3. An integrated presentation of the [sequence of economic accounts](#)

- 3.126 It is now possible to put together the various elements which have been introduced in the previous subsections and to present in detail the integrated economic accounts. Table 23.13 gives a simplified version of the integrated current accounts. It is formed by taking each of tables 23.1, 23.2, 23.3, 23.4 and 23.6 and placing them immediately one under the other. In this presentation the transactions and other flows are shown in the middle of the table with columns to the left for the [uses/expenditures](#) and columns to the right for [resources/revenues](#). In a full presentation of this type there would be one column for each sector or subsector of interest. In the interest of introducing the table in a simple manner, only four columns are shown in table 23.13. The first of these represents the sum of all the five sectors of the total economy (non-financial corporations, financial corporations, general government, NPISHs and households). There follows a column for the rest of the world, then one headed goods and services and the last is a column representing the sum of the previous three. This column has little economic meaning but is a critical way of ensuring that the tables are complete and consistent since the totals on the left-hand side and right-hand side of the accounts must be equal line by line. (When balancing items are shown as the last item in one account and the first in the next account, this equality is misaligned but still obvious.)

### Table 23.13: The integrated presentation of the full sequence of the current accounts

- 3.127 Table 23.14 shows the continuation of the integrated accounts, including the accumulation accounts and balance sheets as previously presented in tables 23.8, 23.9, 23.10, 23.11 and 23.12. Here the columns to the left represent assets or changes in assets and columns to the right liabilities or changes in liabilities and net worth [or changes in net worth](#). Together tables 23.13 and 23.14 make up the integrated economic accounts. The data in the two tables are drawn from the numerical example that runs through the entire publication. The tables for each account in chapters 67 to 43.14 are expanded versions of the tables shown here with columns for all institutional sectors and a full set of transactions and other flows for each of these accounts. A composite version of the tables, with all the details just mentioned, appears in Annex 2.

### **Table 23.14: The integrated presentation of the full sequence of the accumulation accounts and balance sheets**

- 3.128 The integrated economic accounts give a complete picture of the accounts of the total economy including balance sheets, in a way that permits the principal economic relations and the main aggregates to be shown. This table shows, simultaneously, the general accounting structure of the SNA and presents a set of data for the institutional sectors, the economy as a whole and the rest of the world.
- 3.129 The presentation of the integrated accounts in this form is one of several ways in which a bird's eye view of the accounts can be obtained. Another way is by means of a diagram such as figure 23.1, which gives the same information in schematic form.

### **Figure 23.1: Diagram of the integrated accounts for the total economy**

- 3.130 The integrated economic accounts provide an overview of the economy as a whole. As already indicated, the integrated presentation contains much more detail than has actually been included in the tables and may be used to give a more detailed view if so desired. Columns might be introduced for subsectors. The rest of the world column can be subdivided according to various geographical zones. The column for goods and services may show market goods and services separately. The classification of transactions in the rows might be used at more detailed levels, and so on. However, including more detail directly in this scheme at the same time would result in a very complicated and unmanageable table. For this reason, more detailed analysis of production and transactions in goods and services, transactions in financial instruments, detailed balance sheets, as well as analysis by purpose are done in other frameworks. These are presented in the next section and their links with the [integrated sequence of](#) economic accounts are also explained.

### **The rest of the world accounts**

- 3.131 The rest of the world account covers transactions between resident and non-resident institutional units and the related stocks of assets and liabilities where relevant.
- 3.132 As the rest of the world plays a role in the accounting structure similar to that of an institutional sector, the rest of the world account is established from the point of view of the rest of the world. A [resource revenue](#) for the rest of the world is an [use expenditure](#) for the total economy and vice versa. If a balancing item is positive, it means a surplus of the rest of the world and a deficit of the total economy, and vice versa if the balancing item is negative.
- 3.133 The external account of goods and services is shown at the same level as the production account for institutional sectors. Imports of goods and services (499) are a [resource revenue](#) for the rest of the world, exports (540) are an [use expenditure](#). The external balance of goods and services is (-41). With a positive sign, it is a surplus of the rest of the world (a deficit of the nation) and vice versa. To this are added or deducted the various kinds of taxes, [compensation remuneration](#) of employees and other current transfers payable to, and receivable from, the rest of the world. The current external balance is -32, indicating a deficit for the rest of the world but a surplus for the total economy. Again, if it had a positive sign, it would be a

surplus of the rest of the world (a deficit of the total economy).

### The goods and services account

- 3.134 As noted above, the integrated presentation of the account includes a column on each side labelled goods and services. Entries in these columns reflect the various transactions in goods and services that appear in the accounts of the institutional sectors. [UsesExpenditures](#) of goods and services in the institutional sectors accounts are reflected on the right-hand column for goods and services; [resourcesrevenues](#) of goods and services in the institutional sectors accounts are reflected on the left-hand column for goods and services. On the [resourcesrevenues](#) side of the table, the figures appearing in the column for goods and services are the counterparts of the [usesexpenditures](#) made by the various sectors and the rest of the world: exports (540), intermediate consumption (1 883), final consumption (1 399), gross fixed capital formation (376), changes in inventories (28) and acquisitions less disposals of valuables (10). On the [useexpenditure](#) side of the table, the figures in the column for goods and services are the counterparts of the [resourcesrevenues](#) of the various sectors and the rest of the world: imports (499) and output (3 604). Taxes on products (less subsidies) are also included on the [resourceerevenue](#) side of the accounts. The coverage of this item varies according to the way output is valued (see the discussion on valuation in section C). The part (possibly the total) of taxes on products (less subsidies on products), that is not included in the value of output does not originate in any specific sector or industry; it is a [resourceerevenue](#) of the total economy. In the numerical example taxes, less subsidies, on products (133) are shown directly in the column for goods and services. They are a component of the value of the supply of goods and services which has no counterpart in the value of the output of any institutional sector.
- 3.135 The goods and services account is a particularly important account as it forms the basis of the most familiar definition of GDP. Table 23.15 shows the account in the same format as earlier tables in the chapter (though with numeric values included).

### Table 32.15: The goods and services account

#### The aggregates

- 3.136 The aggregates of the SNA, such as value added, income, consumption and saving, are composite values which measure one aspect of the activity of the entire economy. They are summary indicators and key magnitudes for purposes of macroeconomic analysis and comparisons over time and space. The SNA aims to provide a simplified but complete and detailed picture of complex economies, so the calculation of the aggregates is neither the sole nor the main purpose of national accounting; nevertheless summary figures are very important.
- 3.137 Some aggregates may be obtained directly as totals of particular transactions in the SNA; examples are final consumption, [gross fixed capital formation](#), [acquisitions, less disposals, of produced non-financial assets](#), and social contributions. Others may result from aggregating balancing items for the institutional sectors; examples are value added, balance of [primaryearned](#) incomes, disposable income and saving. They may need some further elaboration. However, some of them are so commonly used that they deserve additional explanation at this early stage.
- 3.138 An overview of the aggregates in the SNA and the accounts in which they appear is given in figure 23.2.

### Figure 23.2: Summary of the main accounts, balancing items and main aggregates

#### *Gross domestic product (GDP)*

- 3.139 Basically, GDP derives from the concept of value added. Gross value added is the difference between output and intermediate consumption. GDP is the sum of gross value added of all resident producer units plus that part (possibly the total) of taxes on products, less subsidies on products, that is not included in the valuation

of output.

- 3.140 Next, GDP is also equal to the sum of the final uses of goods and services (all uses except intermediate consumption) measured at purchasers' prices, less the value of imports of goods and services.
- 3.141 Finally, GDP is also equal to the sum of [primary earned](#) incomes distributed by resident producer units.

### *Net and gross measures*

- 3.142 In principle, the concept of value added should exclude ~~the allowances~~ for ~~consumption of fixed capital depreciation and depletion~~. ~~The latter~~ Depreciation, in effect, is not newly created value, but a reduction in the value of previously created fixed assets when they are used up in the production process. [Depreciation is also treated as a cost of production, as it represents the decline in the value of natural resources due to their extraction in the production of goods.](#) Thus, theoretically, value added is a net concept. This conclusion applies to domestic product as well; theoretically, domestic product should be a net concept. Net domestic product (NDP) is obtained by deducting ~~the consumption of fixed capital depreciation and depletion~~ from GDP.
- 3.143 However, gross measures of product and income are commonly used for various reasons. The depreciation of fixed assets as calculated in business accounting does not generally meet the requirements of the SNA. The calculation of ~~consumption of fixed capital depreciation~~ requires that statisticians estimate the present value of the stock of ~~fixed~~ [the relevant](#) assets, the lifetime of various types of assets, patterns of depreciation, etc. Not all countries make such calculations, and when they do there may be differences in methodology (with some of them using business data even when inadequate). [There may be similar concerns when it comes to the estimation of depletion.](#) Consequently, gross figures are more often available, or available earlier, and they are generally considered more comparable between countries, [although significant efforts are being made to further improve estimates of degradation and depletion, including their comparability across countries.](#) ~~So~~ [All in all](#), GDP is ~~broadly~~ [typically](#) used even if it is, on a conceptual basis, economically inferior to NDP. However, NDP should also be calculated, with improved estimates of ~~consumption of fixed capital depreciation and depletion~~ when necessary, in order to provide a significant tool for various types of analysis.

### *Gross national income (GNI)*

- 3.144 [Primary Earned](#) incomes generated in the production activity of resident producer units are distributed mostly to other resident institutional units; however, part of them may go to non-resident units. Symmetrically, some [primary earned](#) incomes generated in the rest of the world may come from resident units. This leads to the definition and measurement of gross national income (GNI). GNI is equal to GDP less [primary earned](#) incomes payable to non-resident units plus [primary earned](#) incomes receivable from non-resident units. In other words, GNI is equal to GDP less taxes, (less subsidies,) on production and imports, ~~compensation remuneration~~ of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world. Thus GNI is the sum of gross [primary earned](#) incomes receivable by resident institutional units or sectors. In contrast to GDP, GNI is not a concept of value added, but a concept of income.
- 3.145 By deducting ~~the consumption of fixed capital depreciation and depletion~~ from GNI, net national income (NNI) is obtained. The remarks above about the conceptual relevance of the net concept in case of product apply even more strongly to national income.

### *National disposable income*

- 3.146 [Primary Earned](#) incomes receivable by resident institutional units may be used in part to make [current](#) transfers to non-resident units and resident units may receive [similar](#) transfers originating out of [primary earned](#) incomes in the rest of the world. Gross national disposable income is equal to GNI less current transfers (other than taxes, less subsidies, on production and imports) payable to non-resident units, plus the

corresponding transfers receivable by resident units from the rest of the world. Gross national disposable income measures the income available to the total economy for final consumption and gross saving. By deducting ~~the consumption of fixed capital~~ [depreciation and depletion](#) from gross national disposal income, net national disposable income is obtained. National disposable income is the sum of disposable income of all resident institutional units or sectors.

### *Accounts in volume terms*

[3.147](#) All the aggregates referred to above are calculated in current values. The influence of changes in prices may also be eliminated. Domestic product is calculated in volume terms in order to measure the real change that occurs from one period to another. This is possible because output, intermediate consumption and taxes on products, less subsidies, on products can all be calculated in volume terms. On the other hand, aggregates of income may not be expressed in volume terms because income flows may not, strictly speaking, be broken down into a quantity and a price component. They may, however, be calculated at constant purchasing power, which is described as being in real terms. When moving from domestic product in volume terms to national income in real terms, the effect of changes in the terms of trade between the total economy and the rest of the world must be taken into account. The necessary adjustment is described in chapter ~~15~~[18](#).

### *[Aggregates per head of population](#)*

[3.1473.148](#) A dimension is added to the usefulness of a number of national accounts aggregates by calculating these figures per head. For broad aggregates such as GDP, GNI or household final consumption, the denominator commonly used is the total (resident) population. When sub-sectoring the accounts or part of the accounts of the household sector, data on the number of households and the number of persons in each subsector are also necessary.

## **4. The other parts of the [integrated framework](#) ~~accounting structure~~**

### **~~The central~~ [Supply and use tables](#) ~~and other input-output tables~~**

[3.1483.149](#) The detailed analysis of production by industries and flows of goods and services by kind of products is an integral part of the integrated ~~central~~ framework. It would be feasible to include further details in the ~~integrated~~ [sequence of](#) economic accounts table; for example, the rows for output, intermediate consumption and value added might be subdivided by kind of economic activity; the columns for goods and services might be subdivided by type of products. However, the SNA does not adopt this solution, because the table would become cumbersome. Instead, tables that provide a systematic cross-classification by institutional sectors and industries of output, intermediate consumption, and value added and its components are proposed. They are described in detail in chapters ~~4~~[15](#) and ~~28~~[36](#) but the main features are outlined here.

[3.1493.150](#) The production and generation of [earned](#) income accounts in the ~~integrated~~ [sequence of](#) economic accounts are given only by institutional sectors and with a global balance of transactions on goods and services. The detailed analysis of production activities and product balances is made in the supply and use tables presenting:

- The ~~resources~~ [revenues](#) and ~~uses~~ [expenditures](#) of goods and services for each type of product;
- The production and generation of [earned](#) income accounts for each industry according to kind of economic activity;
- Data on factors of production (labour and ~~fixed~~ capital) used by industries.

## **Population and Labour market inputs tables**

3.1503.151 In productivity studies, data on the labour inputs used by each industry in the process of production are indispensable. For this purpose, total hours worked is the preferred measure of labour inputs for the SNA. Labour inputs can also be measured in terms of inferior alternatives are full-time equivalent jobs, the number of jobs or the number of persons employed. These measures are also highly relevant in their own right, and very useful for analysing trends and short-term developments in the labour market. The labour market tables, which are also part of the integrated framework of national accounts, provide a systematic overview of the various measures of labour, including remuneration, consistent with the SNA. The tables also provide the opportunity to include various breakdowns of labour input by, for example, age, sex of gender and level of education.

3.1513.152 Data on ~~population and~~ labour inputs may be derived from various data sources, the most important being labour force surveys, data from enterprise surveys, as well as administrative data. These source data must generally be adjusted in order to be consistent with the concepts, definitions and classifications of the SNA, and after adjustment they need to be balanced in order to arrive at a consistent set of data on (compensation of) labour. The resulting labour market tables are an integral part of the SNA and are further explained in chapter ~~49~~16.

## **Functional analysis**

3.1523.153 As explained in section B, the description of a transaction explains what type of flow is being recorded but it does not explain why the transaction is being entered into. In order to analyse the purpose of transactions, it is necessary to apply a functional classification to the basic transaction. For example, instead of disaggregating household consumption by type of product, it may be disaggregated to show how much is spent on food, housing, health, recreation and so on. For government consumption a distinction may be made between consumption related to law and order, defence, health or education, for instance. As compatible but different classifications are used according to the sector concerned, these partial analyses by purpose cannot be integrated in a single table and, in most cases, no exhaustive total for the total economy can be calculated in the ~~central framework~~sequence of economic accounts.

3.1533.154 Another way of looking at function may be to identify all expenditure related to a particular functional activity, such as, for example, environmental protection. ~~This is not (yet) an area where all relevant expenditures are easily identified and so it may be desirable to develop this further outside the central framework in a satellite account.~~

## **E. Cross-cutting issues**

3.155 There are a range of issues impacting the economy that cut-across the various accounts and tables in the integrated framework of national accounts. Part IV of these standards contains six chapters which provide further details on digitalization, globalization, insurance and pensions, selected issues on financial instruments, Islamic finance, and contracts, leases, licenses and permits.

3.156 A wide variety of digital products and activities have appeared as part of digitalisation and digital assets have assumed important roles as stores of wealth or inputs in production. The profound impact of digitalisation on production, consumption, investment, prices, finance, and other aspects of the economy, as well as its impact on international trade in services and other cross-border transactions, calls for additional guidance. Chapter 22 provides more detailed guidance on measuring the activities, products, and assets associated with digitalisation in the framework of the SNA. It also provides methods to enhance the visibility of digital activity and products in the macroeconomic accounts.

3.157 Globalisation refers to the economic integration of economies around the world. Reduced trade barriers and advancements in communication, transportation, and technology have facilitated a rise in the cross-border movements of goods, services, capital, information, and people in recent decades. Those factors have also contributed to increasingly complex corporate structures that span across multiple economies. Such multinational enterprise (MNE) groups can be set up for many reasons, including to reduce labour costs,



[transportation costs, taxes, and proximity to markets. In addition, other global manufacturing and distribution arrangements, such as factory-less goods production and merchanting, have added to the complexities of interrelations between economies. These globalisation developments pose challenges to traditional macroeconomic statistics, which are based on the concepts of residence and economic presence. Chapter 23 elaborates on issues related to globalisation that are touched upon throughout the integrated framework of the SNA. It focuses on the conceptual, measurement, and analytical challenges that arise from deeper corporate linkages and the fragmentation of production processes across economies, which motivate additional breakdowns and supplementary presentations, to arrive at a better understanding of the connections between economies.](#)

- 3.158 [One of the more complex areas in the measurement of economic activities within the integrated framework of the SNA concerns insurance: individual \(non-life and life\) insurance as well as social insurance, including the delineation between the two of them. Chapter 24 provides a further elaboration of the guidance provided in chapters 7, 9, and 12 to 14. It also recommends a supplementary table to arrive at a better understanding of the differences in institutional arrangements across countries and its profound impact on the international comparison of the relevant data that are presented in the sequence of economic accounts.](#)
- 3.159 [Chapter 25 provides additional details on specific financial instruments, as a supplement to chapters 12 to 14. It specifically deals with the treatment of guarantees, financial derivatives and employee stock options. The chapter also touches on issues related to the recording of flows associated with financial assets and liabilities in the broader sequence of economic accounts.](#)
- 3.160 [Chapter 26 covers Islamic finance. Islamic finance is distinguishable from traditional finance in several ways, in relation to both financing and insurance activities. Islamic financial institutions as well as financial institutions with Islamic windows that offer both conventional finance and Islamic finance are bound by Shari'ah principles. The chapter provides further details on how to treat the arrangements within Islamic finance in the context of the integrated framework of the SNA.](#)
- 3.161 [Chapter 27 brings together more detailed guidance on the treatment of the various types of contracts, leases, licenses and permits. The terms of the agreement for such arrangements may affect the time of recording of transactions made under the agreement as well as the classification of payments and the ownership of the item subject to the agreement.](#)

## **F. Institutional units and sectors in more detail**

- 3.162 [Part V of these standards, comprising of chapter 28 to 33, includes further details on some of the particularities of the main institutional sectors included in the sequence of economic accounts: non-financial corporations \(chapter 28\), financial corporations \(chapter 29\), general government and the public sector \(chapter 30\), households \(chapter 31\), non-profit institutions \(chapter 32\) and transactions and positions between residents and non-residents \(chapter 33\).](#)
- 3.1543.163 [In relevant cases, information is also provided on the links with other macro-economic standards, such as the \[Monetary and Financial Statistics Manual and Compilation Guide \\(MFSMCG\\) 2016\]\(#\) in the chapter on financial corporations, and the \[Government Finance Statistics Manual \\(GFSM\\) 2014\]\(#\) in the chapter on general government and the public sector, and the \[Balance of Payments and International Investment Position Manual \\(BPM\\), seventh edition\]\(#\) in the chapter on transactions and positions between residents and non-residents. The relationship with business accounting standards and public sector accounting standards are also concisely addressed in chapters 28 and 30, respectively.](#)

## **E.G. The integrated ~~central~~ framework and flexibility**

### **1. Applying the ~~central~~integrated framework in a flexible way**

- 3.164 [The ~~central~~integrated framework of the SNA is consistent in terms of its concepts and its accounting structure. Links between the various elements of the integrated SNA have been illustrated in order to depict its structure](#)

in a simple but complete way. That presentation does not imply any order of priority or frequency (quarterly, annually, etc.) for implementing national accounts. Priorities in compiling national accounts are a matter of statistical policy; no universal recommendation can be made. (Some indications relevant to specific circumstances are provided in relevant handbooks.) Similarly, the accounting structure does not imply that results always have to be presented exactly as they stand in this or other chapters. A country may choose to publish mainly time series, to prepare only some accounts or aggregates, etc.

[3.1553.165](#) In general, the SNA has to be looked at in a consistent but flexible way. According to analytical requirements and data availability, the attention paid to various aspects of the [central integrated](#) framework may vary. In general, greater emphasis may be given to one part rather than another by choosing the level of disaggregation to adopt for classifications of institutional sectors, industries, products, transactions, sequence of [economic](#) accounts, etc., by using different methods of valuation; by using different priorities for various parts of the accounts and different frequencies; by rearranging the results; by introducing some additional elements, etc.

[3.1563.166](#) The household sector provides a good illustration of what may be done in order to provide an in-depth analysis of the household conditions and the functioning of the economy as a whole. A detailed approach to the household sector may be undertaken, first of all, by deconsolidating the household sector beyond the subsectors included in the main classification of the SNA, distinguishing, for instance, the type of economic activity carried out (formal or informal), the location of the household (urban or rural) or the level of skill. Secondly, it is possible to adapt the way household activities are portrayed in the sequence of [economic](#) accounts. For instance, a concept of discretionary income may be used by excluding from disposable income those elements which are provided in kind and for which the household has no choice on how to spend this part of income, or the classification of household transactions may be complemented, to show the industry of origin of various types of income, and so on.

[3.1573.167](#) The flexibility of the SNA is further illustrated with the public sector, whose components are systematically shown at various levels of detail in the classification of institutional sectors. The components of the public sector [consist of general government entities and public corporations](#), and may be rearranged to group the accounts of the overall public sector. These accounts may be shown before consolidation and after consolidation to describe the relations between the public sector and the private sector and between the public sector and the rest of the world (by separating out the external transactions of the public sector).

[3.1583.168](#) Part VI ([C](#)hapters [34-38](#)[21-29](#) provide more detailed analyses of the above examples. [They also present illustrations of the flexible uses of the central framework in the field of key sector accounting, external accounts problems and](#) [It also includes more details on the informal economy, in chapter 39. The remainder of this section provides a short introduction to matrix-type of tables as well as a concise overview of extended and thematic accounts/tables.](#)

## 2. [Introducing social accounting tables in matrixes form](#)

~~**A social accounting matrix (SAM) is a presentation of the SNA in matrix terms that permits the incorporation of extra details of special interest. To date, builders of SAMs have exploited the flexibility to highlight special interests and concerns such as disaggregating the household sector to show the link between income generation and consumption. The power of a SAM, as well as of the SNA, comes from choosing the appropriate type of disaggregation to study the topic of interest. In addition to a flexible application, SAMs may incorporate more extensive adjustments, which are of a satellite accounting nature, in order to serve specific analytical purposes. For further explanation of the matrix presentation and SAMs, see chapters 28 and 29. [Input-output tables](#)**~~

[3.169](#) [As noted in the above, supply and use tables are an integral part of the integrated framework of the SNA and the process of compiling these tables is a powerful way of ensuring consistency between the various data sources available to the compiler. For many analytical purposes, though, a transformation from a pair of](#)

supply and use tables into a single input-output table where row and column totals are equal brings very considerable advantages. Input-output tables cannot be compiled without passing through the supply and use stage (except under very restrictive assumptions). They are therefore analytical constructs that inevitably involve some degree of modelling in their compilation.

3.170 There is a vast literature on the compilation and use of input-output tables and it is impossible to give a full appreciation of the range of complexities of compilation and inventiveness of applications. Chapter 36 aims to give a feel for the sort of operations necessary to transform supply and use tables into input-output tables and to give some ideas of their possible applications. The chapter also discusses the compilation of multi-country input-output tables, and their use, for example to disentangle gross flows of imports and exports related to global production arrangements, thus arriving at trade in value added, as described in chapter 23.

### **From-whom-to-whomThe tables of financial transactions and financial assets and liabilities**

~~3.159~~3.171 The integrated economic accounts show which sectors acquire which financial assets and incur which liabilities. In order to examine the working of the financial sector, the first expansion of the financial account is to distinguish nine subsectors within financial corporations and eight categories of financial assets and liabilities. The subsectors of financial institutions are discussed in chapter 45 and the details of the financial instruments are described in chapter 412.

~~3.160~~3.172 However, as explained in the introduction to this chapter, the presentation of the financial account as described in this chapter even with the elaboration of subsectors and financial instruments described in chapters 45 and 412, is still not fully articulated. It shows which sectors and subsectors incur loans and make deposits but it does not allow an in-depth examination of the intermediation process whereby a financial institution draws in funds, repackages them and issues them as other instruments to other units. In order to explore this, a three-dimensional “from-whom-to-whom” style of presentation is needed. ~~This is sometimes referred to as a flow of funds matrix.~~ The three-dimensional table of financial transactions is usually presented as a series of matrices, one matrix for each kind of financial instrument showing the flows from one sector to another.

~~3.164~~3.173 As such a presentation is not necessarily useful for actually presenting the data, other presentations may be preferred in practice for publication. For example, a table showing each type of financial asset cross-classified by debtor sector and each type of liability cross-classified by creditor sectors may be considered. As compared to the presentation of the financial accounts made in the integrated economic accounts, this means, in short, introducing a sector distinction below headings of financial instruments when relevant. ~~(For a more complete explanation see chapter 27.)~~

~~3.162~~ Complete balance sheets and assets and liabilities accounts

~~3.163~~ —

~~3.164~~3.174 In the integrated economic accounts, balance sheets are also presented in a very aggregated way. For each sector or subsector more complete balance sheets may be built up using the detailed classification of assets and liabilities when appropriate. Changes in assets and liabilities for each sector may also be analysed for each type of asset and liability and each source of change.

3.175 In addition, three-dimensional tables may be elaborated showing the “from-whom-to-whom” links for each type of financial instrument, to permit better analysis. The presentation of such tables is exactly the same as for tables of financial transactions except that the stock of assets or liabilities is shown instead of changes in assets or liabilities and the net financial position of each sector appears instead of its net lending or borrowing. These tables closely follow the principles for the similar flow tables, ~~and are also described in chapter 27.~~

3.176 From whom-to-whom tables are also useful for current transactions, such as property income and current transfers, as well as capital transfers. In the case of various property income items, a link may be established with related assets and liabilities in the balance sheets on a from-whom-to-whom basis.

~~3.165~~3.177 More details on from-whom-to-whom tables are provided in chapter 37.

### 3. Introducing thematic and extended accounts and tables/satellite accounts

3.1663.178 In some cases, working with the central/integrated framework, even in a flexible way, is not sufficient. Even when conceptually consistent, the central/integrated framework may become overburdened with details. Moreover, some requirements may conflict with the concepts and architecture of the central/integrated framework.

3.1673.179 In some types of analysis, the basic intention is not to use alternative economic concepts, but simply to focus on a certain field or aspect of economic and social behaviour in the context of national accounts. The intent is to make apparent and to describe in more depth aspects that are hidden in the accounts of the central/integrated framework or surface only to a limited extent. Tourism is a good example. Various aspects of producing and consuming activities connected with tourism may appear in detailed classifications of activities, products and purposes. However, transactions and purposes specific to tourism appear separately in only a few cases. In order to describe and measure tourism in a national accounts framework, it is necessary to make a choice between two approaches: either subdivide many elements in the accounts of the central/integrated framework to get the required figures for tourism and pay the price of overburdening and unbalancing the various components of the accounts, or elaborate a specific framework for tourism. The latter approach also allows adaptation of the various classifications and measurement of additional aggregates, such as national expenditure on tourism, which may cover intermediate as well as final consumption.

3.1683.180 In other types of analysis, more emphasis is given to alternative concepts. For instance, the production boundary may be changed, generally by enlarging it, for example, the production of domestic services by members of the household for their own final consumption may be brought within the production boundary. The concept of fixed/produced non-financial assets and the related fixed-capital formation may be broadened, by covering consumer durables or human capital. ~~It is also possible in environmental accounting to record the relationships between natural resources and economic activities differently by recording the depletion and the degradation of subsoil or other natural resources.~~ In these approaches, the economic process itself is depicted differently and complementary or alternative aggregates are calculated. ~~The analysis of a number of important fields such as social protection, health or the environment may benefit from building a framework to accommodate elements which are included in the central accounts, explicitly or implicitly, plus complementary elements (either monetary or in physical quantities) possibly as well as alternative concepts and presentations.~~ In all cases, however, the links with the central/integrated framework are made explicit; there are a number of common elements and any contradictory features are introduced, not by chance, but after explicitly considering various ways of looking at reality.

3.181 Those special constructs, which are consistent with but not fully integrated ~~the central framework with the integrated framework of national accounts~~, are called ~~satellite accounts and are described in more detail in chapter 29~~ either thematic accounts/tables or extended accounts/tables. Thematic accounts/tables increase the visibility of certain key activities by compiling more granular decompositions and by compiling alternative aggregations that summarize the relevant granular data, as described above. General details on the compilation of thematic accounts are provided in chapter 38. Important examples of thematic accounts and tables included in the SNA are the following:

- digital supply and use tables, to better capture the impact of digitalisation on the economy (chapter 22);
- “extended” supply and use tables, to arrive at improved analysis of the impact of globalisation on the domestic economy (chapter 23);
- tables on non-bank financial intermediation, to capture related financial risks and vulnerabilities (chapter 29);
- thematic accounts for non-profit institutions and other social economy institutions (chapter 31); and
- thematic accounts for tourism (chapter 38).

3.1693.182 Extended accounts/tables include imputed values for indicators measured in monetary units and/or non-monetary indicators measured in physical units. They typically expand the production boundary as well as the asset boundary applied in the integrated framework of national accounts. Important examples of extended accounts are often related to supporting the monitoring of certain aspects that contribute to the well-

being of people, including its sustainability. They are the main topic of chapters 34 and 35, as follows:

- extended accounts on unpaid household service work;
- extended accounts on human capital, education and training; and
- extended account for health.

~~3.170~~3.183 General details on the compilation of thematic and extended accounts are provided in chapter 38.

3.184 No thematic or extended accounts/tables are defined in relation to environmental issues. For this purpose, the System of Environmental-Economic Accounts (SEEA) provides an integrated framework complementary to the SNA. Two sets of international standards are available in this area. The SEEA 2012 Central Framework applies and adapts the accounting rules and treatments of the SNA with the intent of supporting the integration of environmental data with the standard economic data organised within the integrated framework of the SNA. In doing so, the various stocks of natural resources are also defined from a physical rather than a monetary perspective. In the second set of standards, the SEEA Ecosystem Accounting, the scope of natural capital is extended to recognise benefits beyond those recognised in the SNA, by also accounting for ecosystem assets and the services that can be derived from these assets. More details, including information on the accounting for sustainability more broadly, are provided in chapter 35.