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SYSTEM OF NATIONAL ACCOUNTS (SNA)

DRAFT INTERNATIONAL GUIDELINES ON THE NATIONAL AND  
SECTOR BALANCE-SHEET AND RECONCILIATION ACCOUNTS OF THE SNA

Report of the Secretary-General



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## INTRODUCTION

A. Purpose and antecedents of the report

1. Accounts on the national and sector balance sheets and on the revaluation of assets and liabilities of institutional units, for example, enterprises, general government, households, are an integral part of the present System of National Accounts (SNA).<sup>1/</sup> The international guidelines on the SNA adopted by the fifteenth session of the Statistical Commission delineate the place, structure and basic concepts of these balance-sheet and revaluation accounts in the framework of the system. They do not, however, provide specific definitions and classifications or standard accounts and supporting tables for such accounts. The Statistical Commission therefore requested that detailed international guidelines in respect of the balance-sheet accounts, and the links between them and the transaction accounts, should be drawn up.
2. This paper furnishes the final version of the draft detailed international guidelines on balance-sheet and reconciliation accounts that the Commission requested. It reflects the results of work and discussions on this subject conducted during the last six years. The first version of the draft detailed guidelines, "The proposed balance-sheet and revaluation accounts of the System of National Accounts (SNA)" was considered by the sixteenth session of the Statistical Commission and by a session of the Working Party on National Accounts and Balances of the Conference of European Statisticians and was the subject of correspondence with national statistical authorities.<sup>2/</sup> Based on those discussions and comments and on further research, a second version of the draft guidelines, "The proposed balance-sheet and reconciliation accounts of the System of National Accounts (SNA)" was prepared with the assistance of H.J. Spicer as consultant.<sup>3/</sup> It was considered and commented on by the eighth session of the aforementioned Working Party and by national statistical authorities through correspondence.<sup>4/</sup> The present paper is a revision of the second version of the draft detailed international guidelines on the balance-sheet and reconciliation accounts of the SNA, in the light of the comments gathered on the second version and still more research on the subject. It is thought that the draft international guidelines set out in this document have reached the stage where the Statistical Commission might consider their adoption.

B. Contents of the report

3. The draft international guidelines in this paper relate to the balance-sheet and reconciliation accounts of institutional units only. They do not deal with statistics of the stocks of tangible capital assets - reproducible and non-reproducible -

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<sup>1/</sup> Henceforth in this paper, the initials SNA should be taken to refer to A System of National Accounts, Series F. No. 2, Rev. 3, (United Nations publication, Sales No. E.69.XVII.3).

<sup>2/</sup> The first draft - E/CN.3/398 and Add. 1, prepared with the assistance of J.R.S. Revell as consultant. Comments on it appear in Official records of the Statistical Commission on the Sixteenth Session, E/4938, E/CN.3/417, paragraphs 22-26 and "Report of the fifth session of the Working Group on National Accounts and Balances", CES/WG.22/27, section IV.

<sup>3/</sup> ST/STAT.70.

<sup>4/</sup> "Report of the eighth session held in Geneva, 17-20 December 1973", Working Party on National Accounts and Balances, CES/WP.22/46.

which establishment-type units use in producing goods and services. These statistics are important in studying and analysing such questions as the capacity to produce, the degree to which the available capacity is used or total factor productivity. It is therefore intended to develop draft international guidelines on statistics of the stocks of tangible capital assets used by establishments. This work should be undertaken during the period, 1975-1976.

4. This report does not deal with the balance and other statistics of national wealth of countries with centrally planned economies; these data are discussed and compared to the proposals in this paper in another document, "Statistics of national wealth in countries with centrally planned economies." (E/CN.3/461).

5. After a section on the action that the eighteenth session of the Statistical Commission may wish to consider, the draft international guidelines are presented in this report in the following order. Section II discusses the uses to which data on the balance sheets and on the reconciliation accounts of institutional sectors might be put and, consequently, the reasons for including these statistics in the SNA. The next section deals with the relationship of the proposed guidelines on balance-sheet and reconciliation items to the adopted recommendations on the transactions accounts of the SNA. Section IV defines national wealth and explains the concept of the independent net worth of corporations. The following section concerns the definition of the statistical units for the balance-sheet accounts and their classification into institutional sectors. Section VI deals with the scheme of classification of assets and liabilities. Discussed in the next two sections are the conceptual and practical problems of valuation and the reconciliation accounts, which deal with the differences between the transactions in the capital finance accounts during a period and the changes in balance-sheet figures between the beginning and end of the period. The additional standard accounts and supporting tables on balance sheets and reconciliations to be introduced in the SNA are given in section IX. The paper ends with a brief discussion of the statistical sources and practical problems of compiling balance-sheet and reconciliation data in section X.

#### I. SUGGESTED ACTION BY THE STATISTICAL COMMISSION

1.1. After considering this report and document E/CN.3/461, the eighteenth session of the Statistical Commission may wish:

(a) To recommend detailed international guidelines on the balance-sheet and reconciliation accounts of A System of National Accounts (SNA) for the use of countries employing this system, based on this report modified, as necessary, in the light of the Commission's discussions and conclusions;

To request the Secretary-General

(a) To prepare, publish and circulate a supplement to the publication, A System of National Accounts, Series F, No. 2, Rev.3. (United Nations publication Sales No. E.69.XVII.3), on the detailed international guidelines on the balance-sheet and reconciliation accounts of the SNA adopted by the Statistical Commission;

(b) To prepare draft international guidelines on statistics of the stocks of tangible capital assets of establishment-type units, in the context of the SNA and of the MPS;

(c) To continue work on the correspondence and linkages, in concept, between the statistics of balance sheets and associated accounts in the context of the SNA and the statistics of national wealth in the context of the MPS;

(d) To prepare a technical manual on the capital finance, balance-sheet and reconciliation accounts of the SNA.

1.2. The cost of the publications on the international guidelines on the balance-sheet and reconciliation accounts of the SNA and on the technical manual on the capital finance, balance-sheet and reconciliation accounts are estimated at \$12,800 and \$10,050, respectively.

## II. USES OF BALANCE-SHEET AND RECONCILIATION ACCOUNTS

2.1. The extension of a national accounting system to include balance sheets and the accompanying reconciliation accounts should result from the values of having the additional data. Countries are undertaking work on balance sheets to an increasing extent because they consider it necessary to have the data to monitor, assess and understand economic and financial conditions and behaviour. The practical difficulties of compiling balance sheets and the concentration on transactions in national accounting have slowed these efforts. This section outlines these developments and indicates a number of the major purposes for which balance-sheet statistics are being, or may be, used. The discussion is not exhaustive, in part because of the limited national experience in compiling and using balance-sheet data.

### A. The growing needs for balance sheets

2.2. In order to understand the flows of national income and expenditure, it is necessary to know the ways in which and the means through which, the institutional sectors of an economy finance their activities. Consequently, an increasing number of countries are compiling comprehensive capital finance accounts for institutional sectors and sub-sectors which link transactions in saving and "real" capital with transactions in financial claims and which classify the latter transactions according to type of claim. Such accounts have proved to be useful in analysing and forecasting financial requirements and behaviour; as a result they have contributed to formulating monetary policies and to managing the finance of economic activities. It is however being increasingly realized that figures of levels of financial assets and liabilities, as well as of flows, are needed in order to understand financial conditions and behaviour. Thus, an institutional sector with funds to invest will be influenced by the pattern of the investments already held. Likewise, an institution needing finance will pay heed to its existing pattern of indebtedness. An individual corporation surely pays equal attention to its profit and loss and its balance sheet. Accounts on financial transactions have, to some extent, been neglected, because there still is no generally accepted theory of the role of finance in an economy; one reason for this may be the lack of supporting balance-sheet accounts.

2.3. There is also growing recognition of the needs for balance-sheet data on holdings of tangible assets in dealing with economic and other problems. Data on the level of the stocks of raw materials and products of enterprises are wanted in analysing their financial requirements and in scheduling their production and purchases. The magnitude and character of the stocks of fixed and circulating assets of enterprises are important factors in their capacity for, and efficiency of, production, their capital replacement and expansion, and their needs for investment funds. Balance-sheet data on mineral deposits, agricultural and urban land, timber tracts and the like are valuable in dealing with problems of the availability, exploitation and other aspects of the management of these natural resources.

2.4. Statistics of balance sheets are also in increasing demand in order to measure, assess and analyse the economic strength and well-being of nations, enterprises and households and the distribution of wealth in and among nations. The stock of man-made and natural resources of a nation delimits its capacity to produce and is a determining factor in its comparative advantages in international trade. The foreign debts and credits of a nation are indicators of its degrees of dependence on, or of independence from, external finance and its international liquidity. The balance sheets of enterprises may be put to similar uses. Household holdings of financial assets and liabilities are indicative of their financial security and affect their consumption behaviour. Their stocks of consumer durables are important aspects of their level of living.

#### B. Areas of use of balance sheets

##### 1. Personal wealth

2.5. One area where the need for figures on the levels of financial assets and liabilities has been evident is in studies of the factors determining personal consumption and saving. Consumption and savings functions have often included a variable on wealth. An illustration of the need to take account of wealth is the likelihood that individuals holding large amounts of corporate securities will increase their consumption when share prices rise sharply. As the stocks of durable consumer goods of households, and the deterioration and obsolescence of these goods, affect their purchasing patterns, data on these stocks are also needed in delineating consumption functions. Further, balance-sheet statistics on households are sought to assess the distribution of wealth among them and their financial liquidity and behaviour and their levels of living.

##### 2. Money and quasi-money

2.6. Another area where there is an obvious need for figures of holdings is in monetary analysis and policy making. For a full analysis, a range of statistical series are needed because "money" is not simply defined. A spectrum of liquid assets, starting with currency in circulation, continuing with transferable time and savings deposits and ending with short-term assets, such as negotiable time certificates of deposit and bills, may be considered "money" or "quasi-money". These assets may be in national currency or foreign currency and may be held by a number of different institutions. Those concerned with the role of money need comprehensive and detailed data in order to develop useful definitions of "money" or "quasi-money". Comprehensive balance sheets would meet this need and, in standard form, would facilitate international comparisons.

##### 3. Ratios involving levels

2.7. Balance sheets are also needed for purposes of computing widely used ratios that involve figures of the level of items. Banks and other financial institutions, for example, observe specific liquidity or reserve ratios; their behaviour therefore cannot be understood or forecast without using balance-sheet data. Non-financial corporations also pay heed to certain ratios, for instance liquid assets in relation to turnover and current assets in relation to current liabilities. Analysts often wish to test a number of other relationships between balance-sheet items in investigating the condition and behaviour of enterprises. It is interesting to note that stock market studies make extensive use of ratios.



#### 4. Portfolio-type adjustment models

2.8. Changes in balance-sheet items may sometimes be interpreted by using portfolio-type adjustment models. For example, assuming that an institutional sector desires a given optimum portfolio of investments, the sector would engage in financial transactions in order to maintain that portfolio when the pattern of its holdings changes. This may be brought about by a change in the market value of a given financial asset or by accumulating saving, initially in the form of increases in liquid assets.

#### 5. Studies of tangible durable assets

2.9. Figures for holdings of fixed assets may be used in studies of production, for example, fitting production functions, computing capital-output ratios, measuring total factor productivity or assessing capacity to produce. For these purposes the figures of fixed assets should be classified according to the kind of economic activity of the establishments using the assets, instead of the enterprises owning the assets, and perhaps should be valued differently. As is indicated in paragraph 3 above, this topic falls outside the scope of this report. The fixed assets of institutional units are dealt with in this paper primarily from a financial point of view. Data on the stocks of fixed assets owned by the institutional units are wanted in studies of their investment behaviour and needs for financing. Balance-sheet figures on the mineral deposits, land timber tracts and similar natural resources owned by institutional units are of interest for purposes of monitoring the availability and exploitation of these non-reproducible resources and formulating environmental policies.

#### 6. Analysis of stockbuilding

2.10. Data on the level of stocks are obviously needed in studies of stockbuilding in relation to financing and in relation to production. For example, there are correlations between the level of stocks and borrowings from banks or other financial institutions. And, ratios of stocks to output for products and of stocks to purchases for materials are of interest in assessing economic conditions and forecasting production and purchasing plans.

#### 7. National wealth and international comparisons

2.11. Balance-sheet figures may be used to analyse the structure of a nation's wealth and to compare it with the structures of other countries. One general measure of financial structure which has been developed for this purpose is the "financial interrelation ratio". This measures the ratio of total financial liabilities outstanding to the total value of national wealth or to total tangible assets. Because institutional sectors customarily differ in their reliance on outside finance as against retained savings, the relative shares of institutional sectors in the ownership of national assets (non-financial plus financial) are important in explaining differences in the structure of national balance sheets. The role of financial institutions in providing outside finance is also of interest as their intervention leads to the issue of two financial claims instead of one claim when lender and borrower deal with one another directly.

2.12. Data on the level as well as on the composition of a nation's tangible and financial wealth are also the subject of considerable interest. These data furnish indicators of the economic resources and financial liquidity of a nation. They also are wanted for such purposes as assessing the external debtor or creditor position and problems of a country. For some of these uses, figures of the stocks of tangible assets and net foreign debt or credit may be sufficient.

### C. Uses of reconciliation accounts

2.13. For most of the purposes which have been mentioned above, it will be helpful, and sometimes essential, to have reconciliation accounts in order to explain the differences between the changes in balance-sheet items and the transactions in capital finance accounts. In many cases, it is necessary to pinpoint changes in balance-sheet items in order to explain transactions.

2.14. If transactions occur as a result of increases in the value of holdings of assets, say because of higher equity prices, holders spend more or restore the altered pattern of their portfolios, it is important to document the revaluation. Figures of revaluations will also assist in analysing the differential effects of inflation on various types of assets and liabilities, and on the well-being of various institutional sectors.

2.15. The reconciliation accounts furnish data on the additions to, and depletions in, known reserves of mineral deposits and on the natural growth and destruction of standing timber. They exhibit certain aspects of the deterioration of the natural environment and give information on the obsolescence of fixed assets.

2.16. The reconciliation entries will also provide information on the extent to which institutional units shift from one sector to another or are consolidated or broken up. The differential effects will also help explain differences in financial interrelation ratios between countries.

### D. Assistance in the compilation of national accounts

2.17. Balance-sheet and reconciliation accounts will be of assistance in work on the transaction accounts of the national accounts. The cross-checking and reconciliation of the changes in balance-sheet items with the correlated capital transactions should improve the reliability and accuracy of both sets of data. The collection of reports from institutions linking profit and loss and balance-sheet figures on depreciation and net worth and coupling transactions and changes in balance sheets in the case of assets and liabilities, would be valuable for that purpose. The cross-checking and reconciliation of the two sets of data may also help to understand and reduce any statistical discrepancy in the derived figures of net lending (net borrowing) between the upper and lower panels of the capital finance accounts of the SNA. Net lending is equivalent to the sum of saving, depreciation and capital transfers less the sum of gross capital formation and net purchases of land and intangible non-financial assets in the case of the upper panel and to the sum of transactions in financial assets less the sum of transactions in liabilities in the case of the lower panel. Comparisons between holdings of financial assets and liabilities and property incomes received and paid out may be of value in detecting missing data in respect of these items.

## III. PLACE OF BALANCE SHEETS IN THE SNA

### A. Purpose of the guidelines

3.1. The guidelines in this report present a comprehensive set of balance-sheet and associated accounts and tables which might serve as a goal for national accounting. Few countries have taken steps towards the introduction of national and sector balance sheets. Furthermore, because of the differences in nature and statistical problems between balance sheets and the existing transaction accounts, even countries with advanced national accounting systems may not be able to complete their systems

with balance sheets for a number of years. Nevertheless, even an incomplete set of balance-sheet accounts, for example on a few groups of financial institutions only, will yield useful results for understanding financial behaviour and it is advantageous to work toward the same definitions and framework from the start. It is therefore worthwhile to formulate international guidelines on balance-sheet and associated accounts, sharing the experience which is thus far available.

#### B. Relation to transaction accounts

3.2. The concepts applicable to balance-sheet and reconciliation accounts which are linked with capital finance accounts, should be considered from two points of view: first, the uses to be made of the balance-sheet figures; secondly, the incorporation of the balance-sheet and reconciliation accounts into the SNA as already adopted. The uses of the balance-sheet and associated accounts have been given primary consideration in formulating the guidelines proposed in this paper. In the event, however, it has proved possible to fit these accounts into the existing SNA without difficulty; there are only a few instances where the entries in the capital finance accounts do not dovetail exactly with the proposed balance-sheet data. There are a few other cases where elaboration of the classifications and definitions of the SNA is necessary. These instances are dealt with in various parts of the paper. While the SNA does not provide full definitions and classifications for balance sheets or a full discussion of the valuation of these items, it does demonstrate how balance sheets fit into the framework of the national accounts.

#### C. General character of balance sheets

3.3. The balance-sheet accounts are statements of tangible assets and intangible non-financial assets owned by the various institutional sectors of the economy and of the outstanding financial claims between institutional units. The SNA recommends a common basis of valuation for these items - at market prices. For any one sector the total value of all assets held, less the total value of financial liabilities and share capital, is called "net worth". Thus, in the illustrative tables given in the SNA, corporate equity securities are included with the liabilities of the issuing sectors. It follows that the balance sheet for each sector balances in the sense that the sum of its net tangible assets, non-financial intangible assets and financial assets is equal to the sum of its liabilities, share capital and net worth.

3.4. These concepts are best demonstrated by reproducing in table 3.1 an illustrative table from the SNA (it is table 2.15 of the SNA). It should be noted that in the balance sheets of the individual sectors and in their summation, financial assets do not equal liabilities and that net tangible assets are therefore not equal to net worth. For all institutional sectors, that is for the nation as a whole, total net worth - often called "national wealth" - is equal to the sum of net tangible and intangible non-financial assets and financial claims on non-residents less the sum of financial liabilities to non-residents and domestic shares held by non-residents: in table 1,  $661 + (31 + 51 + 115) - (52 + 36 + 77) = 693$ . Therefore, for a complete picture, it is necessary to include columns for the rest of the world, containing as financial assets, claims on residents held by non-residents, and as liabilities, claims on non-residents held by residents. These columns furnish a consolidated balance sheet for the rest of the world, showing the links between the rest of the world and the country in question.



3.5. In accordance with the principles adopted in paragraph 7.84 of the SNA, there are no figures for non-residents' holdings of net tangible assets in the balance sheet of the rest of the world. Non-financial assets, such as land bought by a non-resident, are treated as owned by a nominal resident institution; the non-resident holds a financial asset in the form of the equity of the nominal resident institution. Similarly, residents' holdings of real estate abroad are treated as the rest of their holdings of financial assets.

3.6. Once columns have been included for the rest of the world, the sums of the columns are identical on the asset and liability sides of the balance sheet. Thus, the total value of each type of financial claim held as an asset is equal to the total value issued as a liability; the total of financial assets equals the total of financial liabilities and share capital; and the total value of net tangible assets is the same as total net worth.

3.7. It should be emphasized that these identities exist only on the assumption in the SNA of a common valuation of financial claims held as assets and issued as liabilities. The entries in the illustrative tables of the SNA are at current market prices or, in the case of tangible fixed assets, at replacement cost. The SNA stresses, however, that other values may be important and can be incorporated into the system. As will be seen in section VI, it is proposed in this paper that it is better in balance sheets to value certain fixed assets at market prices.

3.8. In the SNA, share capital, valued at market prices, is included with liabilities; incorporated enterprises are then left with an independent net worth. This matter is discussed in section V of this paper, where it is proposed that this concept of independent net worth should be retained in balance-sheet accounts.

3.9. In the SNA it was assumed that changes in balance-sheet figures between one date and the next could be completely explained by net accumulation and revaluations. Experience has shown that there will be other changes as well; and that there is need for a "reconciliation account" instead of a "revaluation account", between opening and closing balance-sheet entries to explain the changes in terms of the transactions of the capital finance accounts, revaluations and adjustments. This forms the subject of section VIII of this paper.

#### IV. NATIONAL WEALTH AND NET WORTH

##### A. Scope of national wealth

4.1. National wealth, that is the total net worth of any one country, may be defined in two ways. First, as is noted in paragraph 3.4 above, it is the total of the various kinds of net tangible and intangible non-financial assets of residents, plus financial claims on non-residents, less financial liabilities to non-residents. Secondly, as table 3.1 shows the same total may be obtained by adding together the totals for the net worth of each of the resident sectors.

4.2. Problems arise concerning the scope of the national wealth in the case of tangible goods and intangible non-financial items; there are no doubts concerning the inclusion of financial claims. Account needs to be taken of at least three criteria in resolving these questions. One consideration is the nature of, and benefits from, the item relative to the concept (notion) of national wealth and the purposes for which statistics of national wealth are wanted. Another criterion is the conceptual and practical problems and difficulties of measuring the value of the items included. The third consideration is maintaining as much consistency as is feasible with the concepts and definitions adopted for the transaction accounts of the SNA.

### 1. Tangible reproducible goods

4.3. There is no question that the items included in gross capital formation in the SNA - the fixed assets of enterprises, government and private non-profit institutions and the stocks of other reproducible goods of enterprises and, in certain instances, government - should be included in national wealth. These tangible reproducible goods result from, and are used in, the production of goods and services. The value of stocks of these items may, in general, be assessed without much difficulty as they are the subject of frequent transactions in the market and in most instances of systematic record keeping by the owners.

4.4. The tangible reproducible durable goods which governments put to military uses mainly are not included in gross fixed capital formation in the SNA; it is considered that they should also be excluded from stocks of fixed assets in the case of the balance-sheet accounts. These goods are perishable and become obsolete rapidly. The stocks are not too important for purposes of economic analysis because they depend on other considerations, such as the international political climate and national security. Furthermore, difficulties of measuring the depreciated value of the stocks would be great because their degree of deterioration and obsolescence vary substantially, depending on technological and political circumstances. However, durable items such as schools, hospitals, air fields or roads mainly used for military purposes may, in addition, be used for civilian purposes or may be shifted to the latter purposes entirely. Furthermore, these items do not present as great difficulties of valuation as other types of military goods and when the goods are transferred to civilian uses, they are added in gross fixed capital formation in the transaction accounts of the SNA and should be included in the balance-sheet accounts. Thus, while military durables are to be excluded from the balance-sheet accounts, it is considered to be desirable to show these goods in a supplementary table.

4.5. The durable goods of households, such as automobiles, refrigerators, washing machines and furniture, are also excluded from gross fixed capital formation in the SNA. This treatment may seem anomalous as the same items, when in the possession of producers of goods and services, are considered to be fixed assets and they do yield a stream of benefits to households over a number of years. Furthermore, possession of the durable goods are important elements in the level of living of households and in their patterns of consumption and of financial behaviour. However, the benefits households derive from these goods are not included in the production of goods and services. The inclusion of durable goods in the standard balance-sheet accounts would therefore create serious problems of reconciliation with the transaction accounts of the SNA. It would also raise substantial difficulties of estimating market values and depreciation in a number of cases. It is therefore considered best to omit these reproducible durable goods from the standard accounts and tables on balance sheets. However, in order to furnish information for the purposes mentioned above, it is desirable to include a supplementary table on household holdings of consumer durables in the system.

### 2. Tangible non-reproducible goods

4.6. Tangible non-reproducible durables, for example, land, timber tracts, subsoil deposits and fisheries used in the commercial production of goods and services, are dealt with in the transaction accounts of the SNA only when sold and purchased. Natural resources in the public domain, such as rivers, lakes and other bodies of water, roads, parklands, unused wilderness and the atmosphere, which are not subject to

ownership rights and which are generally not sold (purchased), are not taken into account at all. Outlays on the permanent improvement and extension of the aforementioned non-reproducible items are covered in the gross capital formation of the SNA, either under "land improvement" or "other construction except land improvement". Such outlays are, in general, not made on unused wilderness or in the atmosphere. Historical monuments, artifacts and art objects are also covered in the transaction accounts of the SNA only when sold and purchased.

4.7. While all of the non-producible tangible assets listed above are part of the natural or man-made endowment of a country and yield benefits over an extended period of time, the stream of benefits from, and the value of, only the tangible non-reproducible resources which are used in the commercial production of goods and services are generally priced in the market place. It therefore becomes feasible to value these assets. In addition, the goods and services flowing from their use are included in production and the capital outlays on their improvement and extension are counted as capital in the transaction accounts of the SNA. As a result, it is proposed that these tangible non-reproducible assets should be covered in the balance-sheet accounts. Primarily because of the conceptual and practical difficulties of valuing the tangible non-reproducible assets in the public domain, as well as the benefits they yield over an extended period of time, it is proposed that these resources as such should be excluded from the balance-sheet accounts. However, construction work for the permanent improvement and extension of these assets, such as dikes, breakwaters, dams, roads, pavilions, land clearance for parklands, would be included in the balance-sheet accounts as reproducible tangible assets. In the case of historical monuments, artifacts and art objects, in order to facilitate valuation, only those which have been purchased (sold) are to be covered in the balance-sheet accounts.

### 3. Intangible non-financial assets

4.8. Intangible non-financial assets are, by nature, difficult to define; it is more a question of establishing conventions. Two types of assets which might conceivably be included are human capital and the store of scientific knowledge. If they were to be included in national wealth, a significant part of what are now current expenditures in the SNA would become capital outlays. The expenditures in question are outlays such as on education and training, on medicine and health and on research and development. There has been at least one attempt to measure these intangible resources of human capital and stored-up knowledge.<sup>5/</sup> However, the conceptual and practical difficulties of identifying and measuring the aspects of these outlays which may be considered to be part of accumulation are considerable and the usefulness of doing this is, in some cases, questionable. For example, these outlays may consist of variable mixtures of short-term (consumption) and long-term (capital) benefits which it is very difficult to disentangle; the correlations between the long-term benefits and the outlays are often not great; the acquired knowledge and skills may become obsolescent. These types of resources are therefore omitted from the standard balance-sheet accounts. To some extent, such assets enter into private accounts as "goodwill"; this is discussed in paragraph 6.7 below, where it is concluded that "goodwill" should not be included in the balance sheets.

4.9. The only intangible non-financial assets that it is proposed should be covered are those included in the transaction accounts of the SNA. These assets consist of patents, copyrights, trademarks, leases in respect of land and buildings and exclusive rights and concessions to exploit mineral deposits, fisheries and timber tracts.

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<sup>5/</sup> John W. Kendrick, "The treatment of intangible resources as capital", The Review of Income and Wealth, Series 18, No. 1 (March 1972).

In the case of the SNA, these intangible non-financial assets are included only when they are purchased (sold); they are not accounted for at the time they are created. A similar approach is proposed in the balance-sheet accounts in the case of patents, copyrights and trademarks, the cost of purchases furnishes the values to be assigned to these assets. In the case of leases and the exclusive rights to exploiting mineral deposits, fisheries and timber tracts, the approach proposed in the case of balance sheets differs from that in the case of the SNA. In essence, it is suggested that such rights, if long-term, should be considered to represent a share of the current market value of the land, buildings, mineral deposits, etc. if the periodic rents, royalties or similar payments for them are significantly less than the current going rates. (See paragraph 6.15 for fuller discussion of this matter).

#### B. The net worth of sectors

4.10. A corporation is owned by its shareholders. Therefore, in a sense, the whole of the corporation's assets, less its liabilities to third parties, belongs to its shareholders. If this principle were to be adopted in balance sheets, corporations would not have independent net worth and the net worth of the other sectors, especially households, would be higher.

4.11. The same sort of argument might be made in the case of general government, which is "owned" by the voting population and whose debts, in the extreme, might be paid by, say, a general tax. Governments usually have negative net worth, which might be attributed to households. All national wealth would then be attributed to households.

4.12. While there is logic behind the argument above, it is necessary to see whether it results in the most useful way of presenting statistical data for use in analysing behaviour. From the point of view of households, this is not so. Households value their shares in terms of the amount for which they would be sold, that is market value and not in terms of the net worth of the corporations involved. The households behave as though they were creditors, rather than owners, of the corporation; they pay attention to their rights of ownership to the underlying net assets only when the corporation is being liquidated. Still less do they consider that, as individuals, they might at some time be liable to pay their share of the national debt.

4.13. This leads to an important principle of sector balance sheets: the accounts are designed to measure the sum of the holdings of the individual units which make up the sector, not the collective wealth of the statistical abstraction called a "sector". Studies of the balance sheets concern the pattern of behaviour of the independent units, not of the sector as an entity. Collective wealth, that is wealth which might be attributed to a group of units but which cannot be appropriated by any one unit, does not affect their behaviour and is therefore not to be counted as their financial assets. This means that corporations retain an element of independent net worth. This independent net worth, which can only be appropriated to the individual shareholders through a liquidation or takeover, is the counterpart of the retained saving described in paragraph 7.71 of the SNA.

4.14. Turning to the behaviour of the corporation, there is a marked distinction between its issued capital and its retained saving. If finance is needed, say for fixed investment, the corporation may either use internal finance or external finance. Internal finance, that is use of retained saving will leave the total of assets and the total of liabilities and net worth unchanged but will result in a change in the mixture of the assets. External finance through a new issue of shares will result in increases in the total of assets and in the total of liabilities and net worth.



Even more important aspects of the differences between internal and external financing are the differences in their impact on the assortment of liabilities and assets, the distribution of the net income, and the pricing policies of the corporations and on capital markets. It is therefore important that share capital and net worth should appear separately in sector balance sheets.

4.15. The net worth of corporations will include various reserves and provisions, such as amounts set aside for depreciation and tax reserves. Corporations do not view these reserves as belonging to shareholders; in fact, banks and certain other financial institutions have sometimes been allowed to have "hidden reserves". The place of these various reserves in balance-sheet accounts is discussed in paragraphs 6.4 through 6.6 below.

4.16. There may, of course, be occasions when it will be useful to combine the corporations' net worth with its share capital as liabilities to shareholders. There will be no difficulty about this as the excess of assets over the sum of liabilities and share capital may be easily added to the figures for share capital.

4.17. Individual shares in the equity of most private non-profit institutions are not conceivable; such institutions have an independent net worth.

#### V. CLASSIFICATION OF INSTITUTIONAL SECTORS

5.1. This section concerns two main topics: the definition of the statistical unit for balance sheet purposes and the grouping of these units into institutional sectors. It first deals with the suitability of three types of transactor units for purposes of balance sheet data - establishment-type units, legal units and families of legal entities. That section is followed by a discussion of the problem of classifying holding companies and trust properties according to institutional sector. The section then turns to the purposes of the classification of institutions into sectors and sub-sectors and concludes that the classification in the SNA is suitable for balance sheets though often not detailed enough. Further subdivisions of sectors can not, however, be standardized because of wide variation in financial structure from one country to another.

##### A. The statistical unit

##### 1. The SNA recommendations

5.2. Two main classes of transactors are distinguished in chapter V of the SNA. First, there is a class of transactors for purposes of compiling data on the flows of goods and services in the production, consumption expenditure, and capital formation accounts. In this case the major interest is in the operating decisions in respect of production; workplace or establishment-type units are therefore needed. The second class of transactors is needed for dealing with the financial flows of the income and outlay and capital finance accounts. In this case, the concern is with the units, often consisting of a number of the first class of transactors, which make financial decisions, such as the disposition of income, the accumulation of property and its finance, and borrowing and lending.

5.3. In the case of corporate and quasi-corporate enterprises, these units are ideally "statistical units consisting of families of incorporated or quasi-corporate enterprises which, as a result of ties of ownership, are controlled and managed by the same interests" (SNA, paragraph 5.61). These families are defined as those where 50 per cent or more of the equity of each legal entity is owned by the same interests. In the case of general government, the desirable and practicable statistical units

under discussion are the organs of general government, for example the central government as a whole, the various state, provincial or local governments and the individual social security schemes; each organ also constitutes a separate legal entity in many instances. The private non-profit institutions included in the sub-sectors of general government because they are wholly, or mainly, financed and controlled by organs of government, should be treated as separate statistical units. In the case of private non-profit institutions serving households, the unit is, in general, the legal entity. It may however be desirable in certain instances to combine private non-profit institutions controlled by the same interests into a single statistical unit. In the case of households, the practical units in question are each household plus the unincorporated enterprises owned by its members, which together make up a legal entity.

5.4. In the case of incorporated and quasi-corporate enterprises, the use of the family of legal entities in the income and outlay and capital finance accounts is however qualified in four ways. First, it may not always be feasible to identify the families of entities or to compile consolidated data for them. In these circumstances, the families will be limited to those legal entities of the family for which consolidated accounts are available. Second, the use of statistics for families of enterprises will reduce the usefulness of certain compilations, for instance according to kind of economic activity. In such cases, it is necessary to use the institutional unit "of narrowest scope which receives and disburses incomes and buys and sells property and which always has complete profit and loss and balance-sheet accounts" (SNA, paragraph 5.62). This is, for incorporated enterprises, the legal entity, which may consist of a number of establishments. Third, if the family of legal entities consists of financial and non-financial enterprises, it will be essential to use at least two statistical units in order to include each group of enterprises in the separate institutional sectors. The fourth qualification to the use of the family of entities is a very important practical one; profit-and-loss and balance-sheet accounts are, in the case of some countries, generally available for individual legal entities only (SNA, paragraph 5.63). Then the practical statistical unit is the individual legal entity.

## 2. For balance sheets of institutional units

### (a) Advantages of the family of entities

5.5. As was noted in section II. above, the major uses of balance-sheet statistics are in studies of financial conditions and behaviour.

5.6. In the case of incorporated and quasi-corporate units, the family of legal entities is recommended for use in the income and outlay and capital finance accounts of the SNA because of the interest in the units where financial decisions are taken. In a commonly-owned group of corporations, finance is very likely controlled from the centre. Frequently, if finance is needed by a subsidiary company for, say, fixed investment, the parent company makes a capital issue and passes the proceeds to the subsidiary in exchange for shares. The decision to do this takes into account the circumstances of all members of the group. It might equally have been decided that another subsidiary company, which had a good year, should transfer less of its profit to the parent unit and make a loan to the first subsidiary.

5.7. The financial links between members of a family of corporations are therefore often meaningless for purposes of analysis. Funds are shuffled among members of the group and loans are made without intentions of repayment. The financial links between them may be designed to "window-dress" the balance sheet. Entering these formal financial assets and liabilities in sector balance-sheet accounts is more likely to be confusing than helpful in analysing the data.

5.8. Moreover, the intra-family transactions may contribute to the compilation of erroneous figures. This is because, in countries where it is impossible to obtain consolidated accounts for families of legal entities, the individual units are usually permitted to have different balance-sheet dates and the data from balance sheets relating to various dates are obviously different from the data from balance sheets for the same date. This problem may arise even in the case of balance-sheet data gathered in special returns if, for practical reasons, companies are allowed to use their normal accounting dates.

5.9. In the case of general government, the SNA recommends that the organs of government should be used as statistical units because the finance of and expenditure on their ministries, departments, government enterprises not considered to be quasi-corporate and other units are jointly determined and controlled. There may be many bookkeeping entries on debits and credits between these units which have no economic or financial significance. Furthermore, the organs of government are likely to be the only practical units for the compilation of the financial data of the income and outlay, capital finance and balance-sheet accounts.

5.10. In the case of households, financial decisions in respect of their household activities and unincorporated enterprises are usually made jointly and financial assets and liabilities are pooled and used in common, in fact as well as legally. Furthermore, the available balance sheet and related records on these assets and liabilities will, in most instances, not separate the household and its various unincorporated enterprises, one from the other, and will, in any case, not draw such economically meaningful distinctions.

(b) Disadvantages of the family of entities

5.11. The major disadvantage of adopting the family of legal entities as the standard statistical unit in the case of incorporated and quasi-corporate enterprises is that it is not a practical unit in the case of a number of countries. In countries where the fiscal and other regulations call for balance sheets for the individual legal entities only, it may not be possible to compile figures for the families, or even to identify them.

5.12. Secondly, a family of entities often covers a wide range of economic activity. Thus, it sometimes includes both financial and non-financial enterprises. In such cases it is not desirable to use the family of entities as the statistical unit. The legal entities in different institutional sectors should be treated as different statistical units; where there are branches and subsidiaries abroad, these will, as in the SNA, be included in the rest of the world. As the use of the family of legal entities in classifications of non-financial enterprises according to kind of economic activity will often limit the usefulness of making the classification, the individual legal entities might be used for this purpose.

(c) The ideal: the family of legal entities

5.13. Despite the difficulties mentioned above, it is considered that the family of entities is, in principle, the main statistical unit which should be used in sector

balance sheets. The exception to this recommendation is that when the family consists of entities following into different sectors or subsectors, for example of financial institutions and non-financial enterprises; they should be divided into statistical units according to these differences in classification. This does not preclude the use of the legal entity as a supplementary unit in tabulating balance-sheet data according to kind of economic activity. In countries where for fiscal purposes balance sheet data are required for the family as a whole, this will not present difficulties. However, other countries may find that the practical statistical unit for purposes of balance-sheet data is the legal entity only. In any case, the same statistical unit or units should be used in balance-sheet accounts and in capital finance accounts.

5.14. Certain kinds of international comparisons of balance-sheet data, for example of financial structure, will be affected by differences in the statistical units used. It is therefore suggested that countries using the legal entity only should, if possible, comment in notes to their balance-sheet accounts concerning the extent to which the use of these units, instead of families of entities, affected the figures. It would also be desirable for them to correct the balance-sheet data for the effects of "window-dressing".

5.15. It is convenient at this juncture to state a general principle that follows from the use of the family of legal entities as the statistical unit in balance-sheet accounts. This is that the financial links between the members of each family that make up the same statistical unit, but not between different families and other independent units, should be consolidated out. As the entities of a family which fall into different institutional sectors or sub-sectors are to be treated as separate transactor units their financial links are, in general, not to be consolidated out.

### 3. Problem cases

#### (a) Holding companies

5.16. Problems of assigning holding companies to institutional sectors or subsectors arise when they have subsidiaries which fall into more than one of them. It is suggested that, in general, the holding company should be allotted to the sector or sub-sector of the subsidiaries in which it holds the most assets. It will however be desirable to make exceptions to this general rule. For example, in the case of a holding company with two subsidiaries, the larger of which is a commercial bank, it would not be desirable to classify the holding company with banks because it is unlikely to behave like a bank; for example it is not required to hold certain reserves. It is suggested that in this case the holding company should be assigned to a separate category of the sub-sector "other financial institutions" shown in table 5.1 below. Holding companies which do not clearly belong elsewhere might also be assigned to that special category.

#### (b) Trust properties

5.17. In certain countries a large amount of wealth is under the control of trustees. Guidance is therefore needed concerning the delineation of the statistical unit and the sector to which these assets should be assigned. The conclusions drawn in this respect are relevant to the transaction accounts, as well as the balance sheets of the SNA.

5.18. Personal trusts. Property held in personal trusts belongs legally to individuals but is administered by trustees who may be either groups of individuals or corporate bodies. The property cannot be disposed of by the persons who receive the income from it, that is the life tenants. While trust property is not owned outright by any person until the trust is terminated, at which time the property reverts to named individuals, it is definitely not held by the trustees, who are only acting as agents. The property should therefore be included as part of the wealth of the legal owners, who are to be classified in the household sector.

5.19. Trustees with very limited powers. In the case of mutual organizations such as trade unions, friendly societies and sometimes pension funds, the powers of trustees are often very limited. The trustees' function is to ensure that the elected or appointed officials follow the rules of the organization in dealing with its property. The property obviously belongs to the organization.

5.20. Other trusts. Described below are a large number of trusts established for educational, religious or charitable purposes which differ in character.

(a) The trust has its own trustees and operates independently of other trusts. In this case, the trust itself is the statistical unit and should be classified as a private non-profit institution serving households.

(b) Educational, religious or other bodies often are trustees for a number of different trusts: for example, a college acting as trustee for a number of scholarship funds or a religious body acting as trustee for a number of charitable funds. As long as the trustee is itself a non-profit institution, the appropriate statistical unit is the non-profit institution, including any trusts for which it is the trustee.

(c) When the trustee is not itself a non-profit institution, for example the central government, a local government or a corporate enterprise, excepting a specialized corporate trustee, the appropriate statistical unit is the group of trusts under a single trusteeship. There will be no links to show between the group of trusts and the trustee as he does not have rights of ownership. The logic of grouping the individual trusts into a single unit is reinforced by the fact that it is now common practice in some countries for bodies to combine the investments of all trusts under their trusteeship into a common pool; they then allocate each trust a proportionate interest in the amalgamated pool.

It would be useful to elaborate the discussion in the SNA of the statistical unit for, and the composition of, private non-profit institutions serving households in accordance with the above proposals.

## B. The institutional sectors

5.21. The aim in classifying statistical units into institutional sectors is to group together units which are sufficiently homogeneous in respect of kinds of liabilities incurred and in respect of kinds of assets held for the analysis of their combined balance sheets to be meaningful. Of course, as the number of categories increase, the degree of homogeneity becomes greater. Some further subdivisions are suggested in the institutional classification of the SNA given in table 5.1 below and the paragraphs that follow it.

### 1. The classification in the SNA

5.22. The institutional sectors and sub-sectors of the SNA are suitable for purposes of balance sheets. The classification is given, with explanatory notes, in table 5.1 of the SNA. It is repeated here for convenience.

5.23. It is recognized that many countries may be unable to compile sector balance sheets in the near future for all the categories of table 5.1. It is more likely that balance sheets could be compiled for certain financial institutions and for central government than for other institutional categories. The way in which a system of balance sheets might be built up, sector by sector, is discussed in paragraphs 10.39 through 10.51 below.

Table 5.1. Classification of institutional sectors and sub-sectors

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1. Non-financial enterprises, corporate and quasi-corporate

(a) Private enterprises

Privately owned and/or controlled enterprises primarily engaged in non-financial activities which are (i) incorporated enterprises, e.g., corporations, joint stock companies, limited liability partnerships, co-operatives or other forms of business associations recognized as independent legal entities by virtue of registration under company and similar acts, laws or regulations, (ii) unincorporated enterprises owned by non-residents, (iii) important, large ordinary partnerships or sole proprietorships owned by residents and maintaining complete profit-and-loss records and complete balance-sheet accounts on the financial assets and liabilities, as well as the tangible assets, involved in the business or (iv) non-profit institutions and associations mainly serving business enterprises and entirely, or mainly, financed and controlled by these units.

(b) Public enterprises

Publicly owned and/or controlled enterprises, primarily engaged in non-financial activities which are (i) incorporated public corporations, i.e., by virtue of company acts or other public acts, special legislation or administrative regulations, they hold and manage the financial assets and liabilities, as well as the tangible assets, involved in their business or (ii) large unincorporated units (government enterprises) that sell most of the goods or non-financial services they produce to the public. These enterprises will not hold and manage financial assets and liabilities apart from their working balances and business accounts receivable and payable.

2. Financial institutions

Incorporated and unincorporated enterprises which are primarily engaged in financial transactions in the market consisting of both incurring liabilities and acquiring financial assets.

(a) The central bank

The publicly owned and/or controlled bank which is a monetary authority, i.e., issues currency and sometimes coins, and not infrequently holds the international reserves of the country. The central bank also has liabilities in the form of the demand deposits of other banks and often of the government. The bank is to be classified as a public financial institution.

Table 5.1. Classification of institutional sectors and sub-sectors (continued)

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2. Financial institutions (continued)

(b) Other monetary institutions

All banks except the central bank which have liabilities in the form of deposits payable on demand and transferable by cheque or otherwise usable in making payments. These banks are to be classified into privately owned and/or controlled institutions and publicly owned and/or controlled institutions.

(c) Insurance companies and pension funds

Insurance companies consist of incorporated, mutual and other entities which mainly engage in providing life, accident, sickness, fire, casualty or other forms of insurance. Also included are separately organized schemes established by fraternal, friendly and other societies, by banks or by the public authorities in order to provide various forms of insurance on a voluntary basis. Excluded are voluntary social security arrangements for certain sections of the community which are part of a more general social security scheme.

The pension funds included here are separately organized schemes established for purposes of incurring incomes on retirement for specific groups of employees which (i) are not part of social security arrangements for large sections of the community imposed, controlled or financed by the public authorities and (ii) engage in financial transactions in the capital market. These funds will have been organized, and will be directed, by specific private or public employers or jointly by the employers and their employees; and the employees and/or employers will make regular contributions. Excluded in addition to pension funds which are considered to be part of public social security schemes, are pension arrangements for the employees of private or public entities which do not include a separately organized fund or which consist of a separately organized fund, but the reserves of the fund are added to the reserves of, or only invested in the securities of, the employer.

The insurance companies and pension funds are to be classified into privately owned and/or controlled institutions and publicly owned and/or controlled institutions.

(d) Other financial institutions

All entities other than those included above which primarily engage in financial transactions in the market, consisting of both incurring liabilities and acquiring financial claims on others. Examples are building and loan associations; private saving banks; public saving institutions, the funds of which do not flow directly and automatically into the balances of the public authorities or special issues of public debt; public lending institutions, the liabilities of which are not necessarily to the public authorities only; credit unions, sales-finance, hire-purchase and other business and personal finance companies; security brokers and dealers performing financing and depository functions; and investment companies, funds, societies and trusts.

Table 5.1. Classification of institutional sectors and sub-sectors (continued)

2. Financial institutions (continued)

(d) Other financial institutions (continued)

The other financial institutions are to be classified into privately owned and/or controlled institutions and publicly owned and/or controlled institutions. Where the public institutions include lending institutions, the liabilities of which are in fact to the public authorities only, though they have the legal authority to incur liabilities to the public or to other financial institutions, the data in respect of these entities should be given separately.

3. General government

All agencies of the public authorities not classified elsewhere: (i) government departments, offices and other bodies engaged in administration, defence and regulation of the public order, promotion of economic growth and welfare and technological development, provision of education, health, cultural, recreational and other social and community services free of charge or at sales prices which do not fully cover their costs of production; (ii) other non-profit institutions serving households or business enterprises which are wholly, or mainly, financed and controlled by the public authorities or which primarily serve government bodies; (iii) social security arrangements for large sections of the community imposed, controlled or financed by the government; (iv) government enterprises (unincorporated public units) which mainly produce goods and services for government itself or which primarily sell goods and services to the public, but do not operate on a large scale; and (v) public saving and lending bodies which are financially integrated with a government or which lack the authority to acquire financial assets or incur liabilities, respectively, in the capital market.

(a) Central government

All departments, offices, establishments and other bodies classified under general government which are agencies or instruments of the central government, irrespective of whether they are covered in ordinary or extraordinary budgets, or in extra-budgetary funds. Included are non-profit institutions which, while not an official part of the central government, are entirely, or mainly, financed and controlled by the central public authorities. Excluded are the social security funds defined below.

(b) State and local government

All departments, offices, establishments and other bodies included under general government which are agencies or instruments of state or provincial, district or county, municipal, town or village, or another organ of government except the central public authority. The bodies may be covered in ordinary or extraordinary budgets, or in extra-budgetary funds. Included are non-profit institutions which, while not an official part of an organ of state or local government, are wholly, or mainly, financed and controlled by it.



Table 5.1. Classification of institutional sectors and sub-sectors (continued)

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### 3. General government (continued)

#### (c) Social security funds

Schemes imposed, controlled or financed by the public authorities for purposes of providing social security benefits for the community, or large sections of the community, which are separately organized from the other activities of the public authorities. The reserves and other financial assets of the schemes, and the liabilities of the schemes, should be distinguished, and recorded separately, from the other financial assets and liabilities of these authorities. Excluded are schemes for government employees formulated by an organ of government solely in its role as an employer of personnel.

### 4. Private non-profit institutions serving households

Private non-profit institutions mainly serving households which are not entirely, or mainly, financed and controlled by organs of general government and which employ the equivalent of two or more full-time persons. These institutions furnish educational, health, cultural, recreational and other social and community services to households free of charge, or at sales prices which do not fully cover their costs of production. Included here are any commercial activities of the private non-profit institution, e.g., owning and letting dwellings, operating eating and lodging facilities, publishing and selling books, which are not set off in a separate legal entity from the main activity of the institution.

### 5. Households, including private non-financial unincorporated enterprises

Resident households and all unincorporated enterprises, i.e., ordinary partnerships and sole proprietorships, primarily engaged in non-financial activities which are owned and/or controlled by resident individuals and are not classified as quasi-corporate enterprises in 1(a) above. Also included are neighbourhood and other social clubs which employ less than the equivalent of two full-time persons.

It is suggested that the household sector be classified according to the socio-economic status of the head of the household as follows: (a) households headed by an owner of unincorporated or quasi-corporate enterprise, subdivided into primarily engaged in agricultural and non-agricultural kinds of economic activity; (b) households headed by an employee; and (c) persons in other status and small social clubs, subdivided into (i) households headed by an inactive person and inmates of institutions and (ii) small social clubs.

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## 2. Non-financial enterprises

5.24. It is important that non-financial enterprises should be subdivided into private and public enterprises in view of the differences in their sources of finance and management. Some countries may also find it useful, if feasible, to distinguish enterprises which are primarily foreign owned from those which are mainly nationally owned. The distinction should be based on whether 50 per cent or more of the equity is owned by non-residents or residents.

5.25. Classification of non-financial enterprises according to size is also likely to be of value in studying their financial behaviour and formulating financial policies. Countries may be able to prepare such classifications as a by-product of the way in which they compile balance-sheet data.

### 3. Financial institutions

5.26. In view of the differences in financial role and behaviour between the institutions falling into the categories "other financial institutions" and "other monetary institutions" and in view of the importance of these institutions, each of the two categories should be subdivided in the case of a number of countries. Because of the diversity of these financial institutions, it is not feasible to suggest a standard way of subdividing the two categories. As is recommended in the SNA, each of the sub-sectors of financial institutions should be subdivided into private and public bodies. As in the case of non-financial enterprises, some countries may consider it desirable to distinguish financial institutions which are primarily owned by residents from those which are mainly owned by non-residents.

5.27. In general, the balance-sheet data of the statistical units for financial institutions should be combined to compile the accounts and supporting tables of the sector and its sub-sectors. Combination is needed for such purposes as analysing the liquidity and portfolio behaviour of, and links between, the financial institutions. In addition, it is desirable to consolidate the balance sheet of those units for such purposes as portraying the role in the economy of the financial institutions as a whole and, in the absence of other data, the holdings of financial assets and liabilities by the rest of the economy.

### 4. General government

5.28. Some countries may find it desirable to raise a sub-sector for the private non-profit institutions serving households, enterprises and government which are to be included in general government. Some of these private non-profit institutions may be jointly financed by more than one level of government, for example central, state and even local and/or at least part of their financing, in particular of capital outlays, may come from private bodies or individuals. Then, only the transfers they receive from organs of government will be covered in the accounts of the organs of government.

5.29. In paragraph 5.68 of the SNA it is stated that for "income and outlay and capital finance accounts, the organs of general government, for example, the central government as a whole, the various state, provincial and local governments, and the individual social security schemes, should be used as transactor units". However, in certain supporting tables (for example, table 22 of the SNA on the incomes and outlay and capital transactions of the three sub-sectors of general government), the transactions are to be consolidated in order to show transactions between general government and the rest of the economy.

5.30. For balance-sheet purposes it is preferable to retain the recommendation for the main SNA transactions accounts and, in general, not to consolidate the figures for the various parts of government. While it is true that the central government often has some say in the expenditure and financing of local governments, the latter are often left with a choice, though circumscribed in certain cases, as to their way of raising finance. The degree of financial independence of local government varies from one country to another. None the less it may be useful for such purposes as

portraying the financial relationships between general government as a whole and the rest of the economy, to show consolidated balance-sheet data in supplementary tables. The financial links between central governments and local governments that are shown in balance sheets will mainly consist of short- and long-term loans.

5.31. Countries may encounter difficulties in compiling unconsolidated balance sheets for general government when there are projects jointly financed by central and local government. It is not feasible to furnish specific guidance for such cases as much depends on the individual circumstances (whether there is an income, to whom it accrues, etc.); a division of the assets and liabilities in respect of the joint projects might, in certain cases, be based on their relative shares in the original costs of the project.

5.32. In the case of some countries, the financial operations of the entire public sector (general government, local government, non-financial and financial public enterprises, sometimes even including certain activities of the central bank) are combined to show separate balance sheets for public and private enterprises and to delineate the links between the units of the public sector. The way in which the public sector's finance is managed should, in addition, be explained in notes to the tables.

#### 5. Households, including non-financial private unincorporated enterprises

5.33. As in the case of the transaction accounts of the SNA, it should be advantageous, if feasible, to classify the balance-sheet data of this institutional sector into the limited number of sub-sectors suggested in table 5.1 in order to bring out the major patterns of investment holdings and behaviour. There are substantial differences, in the assortment of assets and liabilities held by - thus the liquidity of - households of owners of agricultural and non-agricultural unincorporated and quasi-corporate enterprises, households of employees, households of inactive persons and institutional inmates and small social clubs. Their magnitudes and patterns of accumulating and drawing down capital and of borrowing also differ.

### VI. CLASSIFICATION OF ASSETS AND LIABILITIES

6.1. This section deals with the scope of, as well as schemes of classifications for, tangible, intangible and financial assets and liabilities in the case of balance-sheet and reconciliation accounts. The classifications proposed take into account the analytical purposes for which the data are wanted, the practical possibilities of distinguishing the various kinds of assets and the various kinds of liabilities, and the differences between them in mode of valuation. The proposed schemes of classification are, on the whole, the same as, but in some cases more detailed than, those of the SNA.

#### A. General considerations

##### 1. The main types of assets

6.2. The various types of assets fall into the two main categories already distinguished in the SNA - tangible and non-financial intangible assets, on the one hand, and financial claims, on the other. In the case of financial claims, but not other types of assets, each asset of a transactor is the liability or the share capital of another transactor. Tangible assets are classified into those that are reproducible and those which are non-reproducible.

## 2. Scope

6.3. Certain assets and liabilities which frequently appear in balance sheets in business accounting do not qualify for inclusion in national and sector balance sheets.

### (a) Provisions and reserves

6.4. In business and similar accounting, sums are often set aside to provide for certain needs in the future. These may be in respect of transactors' future liabilities, either certain or contingent, or in respect of their future expenditures. In either case the actual magnitude of the future liabilities or expenditures of the transactors are unknown and the counterpart entries to these future liabilities or expenditures will not appear in the accounts of other transactors; the provisions should therefore not be included in the national or sector balance sheets.

6.5. Examples of provisions for future liabilities that commonly appear in balance sheets in business and similar accounting, but should not appear in national and sector balance sheets are "provisions for future taxation" when the amount actually due has not yet been established, "provisions for pension liabilities" though they have not been determined actuarially, sinking funds for the future redemption of bonds and other loans and "provisions for bad and doubtful debts" though not yet defaulted. Figures for these "provisions" are, however, useful in the analysis of the health of enterprises or other units in question. For example, the amounts set aside as reserves for the future payment of taxes and dividends are important in assessing corporate liquidity. Or the provisions made for bad debts as compared to experience in this respect are of assistance in evaluating future profits. It is therefore advantageous to record data on provisions or reserves for these items in notes to the data of national and sector balance sheets. Notes on provisions in respect of contingent liabilities, such as bankers' acceptances, are also worthwhile.

6.6. An example of setting aside funds for future outlays in business and similar accounting is the establishment of provisions for depreciation. This reserve, like the other provisions and reserves discussed in this section, represents an allocation of accumulated saving, which should be included in the equity of the unit, for example net worth plus value of the shares of stock holders in the case of incorporated enterprises. The corollary of this approach is to record fixed assets on a gross basis; in the sector and national balance sheets, they are to be valued net of accumulated provisions for depreciation. Other examples of provisions that are often made for the using up of capital items and the allocation of accumulated saving, are reserves for the amortization of research and development expenditures, advertising outlays or goodwill. None of these items are treated as intangible capital assets in the national and sector balance sheets.

### (b) Goodwill

6.7. Goodwill often appears in the business accounts of an enterprise in connexion with the purchase of other incorporated or unincorporated units. This is because the value of the net assets, not counting goodwill, capitalized research and development and advertising and similar intangibles, of the purchased businesses, though revalued at market values, is less than the amounts paid for the businesses; the differences are entered as goodwill. The differences reflect the purchasers' belief that the value of the net assets of the acquired businesses is low as compared to the income they are expected to generate. This may be due to good management, the

development of special products and/or technologies, the customer appeal built up through advertisement, etc. These attributions represent human or other forms of capital which are not to be included in the national and sector balance sheets. Full account of the amounts actually paid for the purchased businesses and the current value of its assets and liabilities would be taken in the capital finance accounts and would thus be reflected in the balance-sheet account.

B. Classification of tangible reproducible assets

6.8. The schemes of classification for stocks and fixed assets according to type that is already given in tables 6.2 and 6.3, respectively, of the SNA are, on the whole, suitable for balance sheets. For convenience, the categories of these classifications and definitions, somewhat modified for balance-sheet outlays, are set out in table 6.1 below. Excluded from table 6.1, but included in fixed assets in the SNA capital finance account, are reclamations of and improvements in land, the development and extension of plantations, orchards and vineyards, and transfer costs in respect of transactions in land, farms, plantations and the like; for purposes of balance sheets these capital outlays are to be included in the value of the land in question. These improvements and extension and transfer costs become an integral part of the usefulness and market value of the land; it would therefore be impracticable, as well as disadvantageous from the point of view of economic analysis, to treat and revalue the changes made in the land separately from it. For similar reasons, fixed assets in the case of balance sheets should not include outlays on gross fixed capital formation in the case of the SNA transaction accounts such as (a) the sinking of oil wells and mine shafts and similar constructions and the transfer costs of transactions in mineral deposits and concessions, (b) the clearance and afforestation of timber tracts and forests and transfer costs of transactions in them, and (c) the development of, and the transfer costs of transactions in, fisheries. These outlays become an integral part of the value of (a) subsoil assets, (b) timber tracts and forests and (c) fisheries, respectively.

Table 6.1. Classification of stocks and fixed assets according to type

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10. Reproducible tangible assets

10.1. Stocks

10.1.1. Goods producing industries

Agriculture, forestry and logging, and fishing; mining, manufacturing, and electricity, gas and water supply; and construction.

10.1.1.1. Materials and supplies

All materials, components, parts and supplies acquired for extracting, processing, fabricating, assembling, repairing, etc. commodities and for construction works; coal, oil and other fuels purchased for consumption; stocks of fertilizers, insecticides, seeds, feeds and similar goods of agricultural producers; greases and other lubricants; purchased non-durable containers, factory packaging, office and other supplies.

Table 6.1. Classification of stocks and fixed assets according to type (continued)

10. Reproducible tangible assets (continued)

10.1. Stocks (continued)

10.1.1. Goods producing industries (continued)

10.1.1.2. Work-in-progress

Goods which have been partially processed, fabricated or assembled by the goods-producing establishments, but which are not usually sold, shipped or turned over to other establishments without further processing. Partially completed construction works are excluded.

10.1.1.3. Livestock, except breeding stock, dairy cattle and the like

Livestock raised for slaughter; all chickens and other fowl; and other livestock except those enumerated in 10.2.6 below.

10.1.1.4. Finished goods

Commodities of the goods-producing establishments which are ready for sale or shipment by these units, including items which are usually sold by the units in the same form as when purchased. Construction works are excluded.

10.1.2. Wholesale and retail trade

Goods acquired by units classified to wholesale and retail trade for sale or for use as fuels and supplies.

10.1.3. Other industries

Stocks of coal, oil and other fuel and of repairing and maintenance supplies of the transport, communication, financial and other industries n.e.c.; non-durable containers, packaging, office and miscellaneous supplies; all other stocks of these industries.

10.1.4. Stocks of government services

Stocks of government services in strategic materials, grains and other commodities of special importance to the nation.

10.2. Fixed assets

10.2.1. Residential buildings

Buildings, completed and uncompleted, which consist entirely or primarily of dwellings. Included are permanent fixtures such as fixed stoves, central heating, air conditioning, lighting, plumbing and water-supply facilities, and all other fixed equipment customarily installed in dwellings. Hotels, autocourts and similar buildings operated for purely transient occupancy are considered to be non-residential structures.

Table 6.1. Classification of stocks and fixed assets according to type (continued)

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10. Reproducible tangible assets (continued)

10.2. Fixed assets (continued)

10.2.2. Non-residential buildings

Buildings and structures, completed and uncompleted, which are entirely, or primarily, for industrial or commercial use. Examples of non-residential buildings are factories, warehouses, office buildings, stores, restaurants, hotels, garages, farm buildings such as stables and barns, and buildings for religious, educational, recreational and similar purposes. Also included are fixtures, facilities and equipment which are integral and unmovable parts of the structures.

10.2.3. Other construction works

Non-military works, completed and uncompleted, such as the permanent ways of railroads, roads, streets, sewers, bridges, viaducts, subways and tunnels, harbours, piers and other harbour facilities, car parking facilities, airports, pipe-lines, canals and waterways, water-power projects, dams, dikes and irrigation and flood control projects, aqueducts and sanitation projects, athletic fields, electricity transmission lines, gas mains and pipes, telephone and telegraph lines, etc. Includes the cost of laying out the necessary streets and sewers, but excludes groundwork within the building line, which should be included in residential or non-residential buildings, as the case may be.

10.2.4. Transport equipment

Completed ships, aircraft, railway and tramway rolling stock, tractors for road haulage, trucks, moving vans and the like, motor vehicles, carts and wagons acquired by industries, government services for civilian use and private non-profit services. Transport equipment acquired for military purposes is excluded.

10.2.5. Machinery and equipment

10.2.5.1. Agricultural machinery and equipment

Agricultural machinery and equipment such as harvesters, threshers, ploughs, harrows and other cultivators, and tractors other than for road haulage.

10.2.5.2. Other

Durable goods not elsewhere classified to the fixed assets of resident producers. Included are power generating machinery; office machinery, equipment, furniture and furnishings; art objects; metal working machinery; mining, construction and other industrial

Table 6.1. Classification of stocks and fixed assets according to type (continued)

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10. Reproducible tangible assets (continued)

10.2. Fixed assets (continued)

10.2.5. Machinery and equipment (continued)

10.2.5.2. Other (continued)

machinery; cranes and fork-lift equipment; durable containers; equipment and instruments used by professional men; and equipment, furnishings and furniture for use by hotels, boarding houses, restaurants, hospitals, research institutions, schools and other services. Items of small value, such as hand tools, office desk equipment and furnishings, may be excluded on practical grounds if the customary accounting procedure is to treat them as a current expense.

10.2.6. Breeding stock, draught animals, dairy cattle and the like

Breeding stock, draught animals, dairy cattle, sheep, llamas, etc. raised for wool clipping.

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C. Classification of tangible non-reproducible assets

6.9. For a number of uses of balance-sheet and reconciliation accounts, it is necessary to have a detailed classification of the tangible non-reproducible assets which are covered under "land" in the transaction accounts of the SNA. Examples of these uses are delineating the structure of national and sectoral wealth, measuring and assessing the availability and use of natural resources, dealing with related environmental problems, and applying different modes of valuing these balance-sheet items. The proposed classification is given in table 6.2 below.

Table 6.2. Classification of non-reproducible tangible assets according to type

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11. Non-reproducible assets

11.1. Land

11.1.1. Land underlying buildings and works

Land on which are erected buildings and works included under items 10.2.1. through 10.2.3. in table 6.1 above. Included are access roads to farms, yards of farm residential structures and the like. In the case of residential buildings it is necessary to impose a limit to the size of private gardens surrounding dwellings; if no limit is prescribed for local taxation purposes, any excess of land over 0.5 hectares should be included under item 11.1.3 below.



Table 6.2. Classification of non-reproducible tangible assets  
according to type (continued)

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11. Non-reproducible assets (continued)

11.1. Land (continued)

11.1.2. Cultivated land

Land on which agricultural or horticultural activity are carried on for commercial or subsistence purposes, including all plantations, orchards and vineyards. Land forming a part of a farming enterprise, but not access roads, farmyards, etc., which should be classified to item 11.1.1. Private gardens and plots not cultivated for subsistence or on a commercial basis should go under item 11.1.3. except that a limited area surrounding dwellings should be classified to item 11.1.1.

11.1.3. Other

Privately owned amenity land, parklands and pleasure grounds; private gardens and plots not cultivated for subsistence or commercial purposes, and the excess area above a certain limit of private gardens surrounding residential buildings.

11.2. Timber tracts and forests

All timber having a commercial value in forests, timber tracts, woodlands and copses and the underlying land.

11.3. Subsoil assets and extraction sites

11.3.1. Coal, oil and natural gas reserves and sites

Anthracite, bituminous and brown coal deposits and shaft and open-cast mines; petroleum and natural gas reserves, wells and fields.

11.3.2. Metallic mineral reserves, mines and sites

Ferrous, non-ferrous and precious metal ore deposits, mines and other extraction sites.

11.3.3. Other non-metallic mineral reserves, mines and sites

Stone quarries and clay and sand pits; chemical and fertilizer mineral deposits, mines and other extraction sites; salt deposits, mines and extraction sites; deposits, mines and other extraction sites in the case of quartz, gypsum, natural gem stones, asphalt and bitumen, peat and other non-metallic minerals other than coal and petroleum.

11.4. Fisheries

Stocks of fish and the associated works in the case of fish ponds and farms, cultivated oyster and pearl beds, and other fisheries. Only commercially run fisheries in inland waters (rivers and lakes) and inshore when separated from the open sea by a barrier should be included.

11.5. Historic monuments

Buildings, statues and other structures of historic or major cultural interest which have been the subject of a transaction in the capital finance accounts.

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### 1. Separation of land and buildings

6.10. In a number of instances, it may be difficult, if not impracticable, to separate the value of land from that of the buildings erected on it, particularly in the case of the individual owners. This difficulty has been recognized in the SNA, where it is noted that it is sometimes necessary to include sales of land with sales of fixed assets (SNA, paragraph 6.128). There are two reasons for this. First, in the market for real estate and in the accounting records of transactors, distinctions are often not made between the buildings and the land on which they stand. Secondly, real estate may frequently be owned by a number of transactors and it is impossible to separate out the share of each in the site and in the structure.

6.11. The statistical problems of valuing land and buildings separately are discussed below in paragraphs 7.23 through 7.28. It is usually much easier to make a division between land and buildings in the case of the nation as a whole than in the case of individual institutional sectors or sub-sectors. Fortunately, it is much more important to have separate national data than sectoral figures. Separate figures are needed for studies of national wealth and environmental problems while combined figures are suitable for purposes of analysing the behaviour of the institutions of a given sector.

### 2. Historic monuments

6.12. Historic monuments, that is buildings and other structures listed by the relevant authorities as of archaeological or historical interest, public statues, and the like may be regarded as part of a nation's wealth. These non-reproducible tangible assets are often a source of income, involve upkeep expenditures, and are occasionally sold. As it is however extremely difficult, if not impossible, to value them realistically unless they happen to have been sold (purchased), it is proposed that they should be included in balance-sheet accounts only if this is the case. Following this procedure also facilitates reconciliation between balance sheets and capital finance accounts; the sale and purchase of historic monuments should be recorded in the latter accounts. It should be noted that although antiques and old art objects are, in general, non-reproducible, they are to be treated as fixed assets when held by enterprises, government or private non-profit organizations and as durable consumer goods when held by households.

### D. Non-financial intangible assets

6.13. Transactions in non-financial intangible assets in the capital finance account of the SNA cover purchases and sales of (a) leases of land and buildings and other structures, and concessions of exclusive rights to exploit mineral deposits and fishing grounds and (b) patents, copyrights and trade marks (see paragraph 7.86 of the SNA). These intangible assets are created at the time of the purchase (sale), that is when a once and for all lump-sum payment in respect of the lease, concession, patent or copyright has been made. The lump-sum payment might be considered to be an advance of the discounted value of the stream of expected rents or royalties over the life of the lease, concession, copyright, etc. and therefore might be shown as a financial asset of the payer and a liability of the receiver which are written off year-by-year. The corollary of this would be that the year-by-year write offs should be treated as payments of rents or royalties. Treating these purchases (sales) as acquisitions (dispositions) of non-financial intangible assets avoids the imputations of financial assets and liabilities in the form of advances and of rents and royalties. Furthermore, the transactions, like purchases (sales), involve a once and for all payment and are usually so recorded in business records. For purposes of the balance-sheet accounts, it is questionable whether leases and concessions that have been purchased (sold) should be included in holdings of non-financial intangible assets.

6.14. Leases on the rental of machinery are excluded from non-financial intangible assets. Lessees of machinery or equipment are not generally given the right to sell their lease. Furthermore, the SNA includes the rentals for the machinery or equipment in intermediate consumption, as payments for purchased services from the legal owners of the machinery or equipment, and not in rents as property incomes. Thus, the owner is to be charged with allowances for the consumption of the machinery or equipment. If lessees are given, and exercise, the option to purchase machinery or equipment at the end of their leases at less than its market value because the total rentals they paid exceed the market values, the value of the actual payments for the purchases, should be included in their gross fixed capital formation; the actual market values should be added to their balance sheets and the two sets of entries should be bridged by adjustment items in their reconciliation accounts. This reflects the actual situation at the time of the purchases of the machinery or equipment. The corresponding entries should of course be reflected in the lessors' (sellers') accounts.

#### 1. Leases and concessions

6.15. The treatment in the SNA that is outlined above would give rise to an anomaly in balance-sheet accounts if the rents or royalties to be paid periodically in respect of the leased real estate or concession rise in the market but remain fixed in the lease or concession. This is because the concomitant increase in the market value of the real estate during the life of the lease or concession accrues to the lessee, not to the owner. For example, while the owner would not receive the full current market value of the property if he were to sell, the lessee could assign the use of the property at a higher rent or royalty than called for in the lease or concession or sell the lease or concession at a price that reflects the rise in the market value of the rights to use the property. In other words, the ownership and possession (use) of the property have been separated. This should be reflected in the balance-sheet accounts through the assignment to the holder of a lease or concession of an interest in the property itself that reflects the rise in its market value during the life of the lease or concession, provided it has more than one year to run or can not be terminated by the owner of the property on notice of one year or less. The owner's interest in the property would be its market value at the time the lease or concession was granted; his interest would become the full current market value of the property a year before the lease or concession is to terminate.

6.16. In the case of a once and for all lump-sum payment to the owner of the real estate for a lease or concession, the valuation of the share of the lessee in the value of the property is somewhat more complicated. The lessee's original share in the value of the property should reflect the lump-sum payment, in other words the payment viewed as a discounted stream of rentals or royalties over the life of the lease or concession. As time passes, this aspect of the lessee's share declines along with the discounted value of the remainder of the estimated stream of rentals or royalties at the time of the lump-sum payment. On the other hand, if the rentals or royalties paid in the market rise above the estimates fixed in the lease or concession, the lessee's share in the value of the property should reflect a corresponding increase. As in the case of leases or concessions calling for periodic payments, this part of the share of the lessee who has made a lump-sum payment reduces to zero a year before the lease or concession expires.

## 2. Patents, trade marks and copyrights

6.17. There are a number of ways in which holdings of patents, copyrights or trade marks might be dealt with in the balance-sheet accounts: (a) all such holdings might be covered; (b) they might be accounted for in holdings of intangible assets only after they have been purchased (sold); (c) they might be included as advance discounted lump-sum payment (receipt) of royalties in the financial assets of the purchaser and the liabilities of the seller only after purchase (sale); or (d) such holdings might be omitted altogether.

6.18. At first sight, the first of the four alternatives above may appear to be preferable. There are, however, three counter arguments. First, patents, trade marks and copyrights reflect an element of human capital, which is not to be covered in the balance-sheet accounts. Second, the value of all patents, copyrights or trade marks is not usually recorded in business accounts; only those that have been actually purchased are recorded. Thus, only the latter enter into business decisions and financial behaviour. Third, it would be impracticable, because it is extremely difficult and laborious, to estimate the value of all patents, copyrights and trade marks of transactors.

6.19. The third alternative above also raises serious practical difficulties because of the need to write-off the lump-sum advance year after year. Furthermore, this approach to the transaction in a patent, copyright or trade mark is somewhat artificial; the purchaser and seller do, in fact, consider and record it as a purchase and sale, respectively. This is also one of the arguments against the use of the fourth approach outlined above. Both the third and fourth alternatives are of course inconsistent with the treatment of the purchase (sale) of copyrights, patents and trade marks in the transaction accounts of the SNA.

6.20. The inclusion of patents, copyrights and trade marks in holdings of intangible assets only after they have been purchased (sold) - the second alternative listed above - is the most practical way of treating these assets. It is also the desirable approach as it is consistent with the point of view and accounts of enterprises and with the transaction accounts of the SNA.

## E. Classification of financial assets and liabilities

### 1. The classification

6.21. The classification of financial claims given in table 7.2 of the SNA is, on the whole, suitable for purposes of balance-sheet accounts. The classification, modified in a few respects in the light of development since it was adopted, is set out in table 6.3 below.

### 2. Character and use of the classification

6.22. The first level of the classification in table 6.3 is designed to classify financial assets and liabilities according to their type of instrument, the circumstances in which the transaction took place in the first instance, their method of valuation and their degree of liquidity. A second more detailed level of classification is recommended in the case of a number of the categories of financial claims in order to indicate the institutional sectors of the debtors in the case of financial assets and the institutional sectors of creditors in the case of a few liabilities. These sub-classifications are limited to categories of financial assets and liabilities for which information about the class of debtor or creditor is of particular importance analytically and is feasible to gather. For example, in view of

Table 6.3. Classification of financial assets and liabilities

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a. CLASSIFICATION (Definitions of general terms, such as bills, bonds or loans, are given in the second section of the table)

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The number 8 in the first portion of the code identifies a financial asset; the number 9 in the first portion of the code identifies a liability.

8.1. Gold and IMF special drawing rights

All holdings of gold except for industrial uses and purposes and IMF special drawing rights.

8.2 or 9.2. Currency and transferable deposits

Notes and coins in circulation; and deposits which are exchangeable on demand at par, without penalty or restrictions, and which are transferable by cheque, or are otherwise commonly used to make payments. These categories should be cross-classified according to currency and transferable deposits (i) which are held in the national currency of a country and in foreign currencies and (ii) which are the liabilities and assets of resident bodies (monetary institutions and central government) and the liabilities and assets of the rest of the world (e.g., foreign banks and governments).

8.3 or 9.3. Other deposits

All claims, other than currency and transferable deposits, on monetary institutions, other financial institutions and government organs that are represented by evidence of deposit. In the case of most countries, deposits with savings banks would be included. Also to be included are shares in small denominations, or similar evidences of deposit, issued by savings and loan associations, building societies, credit unions and the like which are legally, or in practice, redeemable on demand or relatively short notice. These categories are to be cross-classified into deposits (i) which are held in the national currency of a country and in foreign currencies and (ii) which are the liabilities and assets of resident and non-resident institutions.

8.4 or 9.4. Bills and bonds, short-term

Bills and bonds the original maturity of which is less than one year. Claims with optional maturity dates, the latest of which is one year or more away, should be considered to be long-term. The category should be subdivided according to debtor, as follows: (i) resident corporations, (ii) central government, (iii) state and local government and (iv) the rest of the world.

8.5 or 9.5. Bonds, long-term

Bonds, debentures, etc. the original maturity of which is one year or more. Included in the case of corporate issues are preferred shares of stocks, excepting participating preferred securities. The category should be subdivided in the same fashion as category 8.4. In addition, subdivision of the bonds and debentures according to (i) quoted on the stock exchange and (ii) not quoted on the stock exchange and according to remaining period to maturity, of (i) less than one year and (ii) one year or more, will be of value.

Table 6.3. Classification of financial assets and liabilities (continued)

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8.6 or 9.6. Corporate equities, including capital participations

Instruments and records acknowledging claims to the residual value, and residual income, of incorporated enterprises, after the claims of all creditors have been met. Equity securities do not provide the right to a pre-determined income, or to a fixed sum on dissolution of the incorporated enterprise. Ownership of equity is usually evidenced by shares, stocks, participations or similar documents. Preferred stocks or shares which also provide for participation in the distribution of the residual earnings, or value on dissolution, of an incorporated enterprise are included. The categories are to be subdivided into the securities of (i) resident corporations and (ii) the rest of the world, i.e., non-resident corporations; and in each case, securities quoted on the stock exchange are to be distinguished from other securities.

8.7 or 9.7. Short-term loans, n.e.c.

All loans not classified elsewhere, the original maturity of which is less than one year. All loans repayable on demand should be classified as short-term even though these loans are expected to be outstanding for more than one year. Covered are loans extended to business, government, households, etc., by banks, finance companies and others, including instalment loans, hire-purchase credit and loans to finance trade credit. It will be of value to subdivide these categories according to the resident sector and the rest of the world in the case of debtors and creditors, respectively, when compiling detailed data on claims.

8.8 or 9.8. Long-term loans, n.e.c.

All loans not classified elsewhere, the original maturity of which is one year or more. It will be of value to subdivide these categories according to the resident sector and the rest of the world in the case of debtors and creditors respectively, when compiling detailed data on claims. It may also be useful to distinguish loans secured by mortgages from other loans and loans, the remaining period to maturity, of which, is less than one year from other long-term loans.

8.9 or 9.9. Net equity of households on life insurance reserves and on pension funds

The reserves held against life insurance and annuity policies by insurance companies, whether mutual or incorporated, and by employees' pension funds, friendly societies and similar bodies, in order to cover the risks of insuring during a period of account, pre-payments of premiums in respect of future risks, and other elements of saving involved in the policies.

Table 6.3. Classification of financial assets and liabilities (continued)

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8.10 or 9.10. Proprietors' net equity in enterprises

The difference between the sum of the value of the assets of the quasi-corporate enterprises and the sum of the value of the liabilities of the enterprises to third parties. These categories should be subdivided into resident and non-resident quasi-corporate enterprises and resident and non-resident owners, respectively, in the case of detailed analysis of claims.

8.11 or 9.11. Trade credit and advances

Trade credit extended to enterprises, government and households; and advances for work which is in progress or is to be undertaken. In the detailed tabulations of claims, these are to be subdivided according to resident sectors and the rest of the world in the case of debtors and creditors, respectively. It will also be of value to separate short-term trade credits and advances from long-term trade credits and advances. The dividing line between the two types of credit is one year, as in the case of the other distinctions between short-term and long-term claims.

8.12 or 9.12. Other accounts receivable and payable

Accounts receivable and payable which are not included above, for example, in respect of taxes, interest, dividends, rent, wages and salaries, insurance claims which are due to be received or paid. It will be useful to classify these categories according to the resident sector and the rest of the world in the case of the debtor and creditor, respectively.

8.13 or 9.13. Other

Differences in time of recording between payments and receipts in respect of financial claims and statistical discrepancies in the figures between a category of financial assets and the corresponding liabilities which it is not feasible to adjust in the data for the categories listed above. It will be valuable, if feasible, to indicate the extent to which differences in time of recording and statistical discrepancies account for the data entered here, and the broad categories of claims to which these differences and discrepancies relate.

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b. DEFINITIONS OF GENERAL TERMS

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Bill: A security which gives the holder the unconditional right to receive a stated fixed sum on a specified date and which is issued and traded in organized markets at a discount, depending on the rate of interest and the time of maturity.

Table 6.3. Classification of financial assets and liabilities (continued)

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- Bond:** A security which gives the holder the unconditional right to a fixed money income, that is, payment of interest is not dependent on the earnings of the debtor, and which is usually issued and traded in organized markets. With the exception of perpetual bonds, a bond also gives the holder the unconditional right to a stated fixed sum on a specified date or dates. Mortgages are not classified here; they are included under loans.
- Loan:** A direct transaction between borrower and lender, where the lender receives no security evidencing the transaction or a non-negotiable document. Included are transactions which are essentially loans, though the debtors may issue a security, for example, bonds specifically issued by the government to the central bank as security for a note, liens and mortgages created as a security for a loan.
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the concern about liabilities to, and claims on, non-residents in formulating monetary, balance-of-payments and foreign investment policies and in planning and financing economic development, distinctions between foreign and national claims are recommended in the case of a number of the categories of liabilities and financial assets. The two levels of classification of financial claims, in combination, should be of value for compiling data on such questions as the external sinks of investment and sources of finance of the various kinds of institutional units and their degree of liquidity and solvency. For purposes of assessing their degree of liquidity and solvency it would be desirable to classify long-term bonds and loans according to their remaining period of maturity. The scheme of classification should also be of value in portraying the markets for the various types of financial claims and in distinguishing the various ways of valuing them.

6.23. The detail in which it is desirable and practicable to employ the classification of financial assets and liabilities will vary from one institutional sector and sub-sector to another, as well as from one country to another. It depends on such factors as the institutional arrangements of a country and the economic role and practices of the institutions, as well as on the analytical purposes the compilation is to serve. In general, the detail of classification of financial assets and liabilities that is required, or that is feasible, in balance-sheet accounts and tables is least in the case of households, moderate in the case of incorporated non-financial enterprises and general government, and greatest in the case of financial institutions. In addition, it may be desirable and practicable to use more detailed classifications of the financial assets and liabilities in the case of countries with highly developed financial markets than in the case of other countries. In the case of the former countries, it may, for example, be desirable to use more detailed classifications of the financial assets and liabilities of financial institutions and central government than is recommended in table 6.3 above. In short, it is necessary to adapt the recommended classification of financial assets and liabilities to the circumstances in which, and the purposes for which, it is used.

6.24. It is useful to discuss below the definitions of certain categories of financial claims; in particular, the suggested modifications and amplifications in the recommendations of the SNA.



### 3. Selected categories of the classification

#### (a) Gold and IMF special drawing rights

6.25. As the SNA was published before the issue of special drawing rights by the IMF, its classification of financial assets does not furnish a category for these assets. Special drawing rights are acceptable international assets for balance-of-payments settlements and are treated as part of a country's official international reserves by the IMF. As, in these respects, they are similar in character to gold, special drawing rights have been added to the category for gold in the SNA classification of financial claims. Like gold, they are also not considered by the IMF to be a liability of anybody; the issue or withdrawal of special drawing rights by the IMF are therefore to be accounted for in the reconciliation accounts of the system.

#### (b) Currency and transferable deposits

6.26. The subdivisions of this category suggested in table 6.3 above are useful for analytical purposes. The distinction between currency and transferable deposits is valuable for monetary and liquidity analysis. This is also the case for the classification, in turn, of these claims according to the kind of debtor or creditor resident and non-resident institutions.

#### (c) Other deposits

6.27. As in the case of transferable deposits, it may be advantageous and practicable to classify other deposits according to kind of debtor or creditor institutions in the case of countries with well developed financial institutions. Non-negotiable time certificates of deposit should be included in this category; negotiable time certificates of deposits should be classified to "short-term bills and bonds".

#### (d) Short-term bills and bonds

6.28. In the case of short-term bills, it is sometimes difficult to decide whether the holder has a claim on the transactor on whom the bill was originally drawn or on the immediately previous holder. Where the bills are normally marketable, it is best to classify them according to the transactors on whom they were first drawn; otherwise, the bill should be treated as a claim on the immediately previous holder. In the latter case, each endorsement (purchase-sale) creates a new financial asset and liability.

#### (e) Long-term bonds

6.29. Long-term bonds are to include all bonds the original maturity of which is one year or more. As long-term bonds which mature in less than a year are very liquid assets - they are certain to be redeemed at par within a short period - it is desirable to classify long-term bonds in addition according to remaining period to maturity of less than one year and of one year or more. Bonds that are convertible into stock are becoming important in some countries. In that case it will be useful to distinguish them from other bonds for purposes of both valuation and analysis. For the same purposes, long-term bonds should be classified into quoted and not quoted on exchanges.

#### (f) Corporate equities

6.30. This category includes ordinary, common or redeemable shares, participating preference shares, shares in mutual funds or unit trust units, in co-operatives or in limited liability partnerships. In all these cases, the shares can usually be sold without the enterprise being dissolved.

(g) Net equity of households on life insurance reserves and on pension funds

6.31. General principles that have been adopted in the case of balance sheets are that only that element of an institution's wealth which can be appropriated by another transactor should be counted as his asset and that only liabilities which are certain (not contingent) and the value of which can be determined, should be recorded. In the case of the reserves held against life insurance policies and pension arrangements, the covered individuals have claims to the future payment of a capital sum or income on the occurrence of death, on the attainment of a specified age and/or period of coverage. As one or the other of these events are bound to occur and it is possible to ascertain the present value of the individual's claim to the payment of capital or income, the reserves held against life insurance and pension arrangements should be considered to be assets of the covered individuals, and not part of the independent net worth of the insurance companies or pension funds. This is also the case for pre-payments of premiums and other elements of saving by the individual which may be involved in the policies or pension arrangements

6.32. The reserves which are earmarked by life insurance companies for policy holders, including pre-payments of premiums, actuarial and contingency reserves, do not represent the whole of the net worth of the companies. In most instances, there are shareholders and even when this is not the case, a clear distinction is drawn between the reserves held against life policies and other reserves. The usual accounting practice of mutual insurance companies, that is where the policy holders are the owners, is to transfer realized and perhaps unrealized capital gains to policy holders' reserves when they become large and are considered to be permanent.

6.33. The treatment of life insurance reserves set out above was adopted in the case of the transaction accounts of the SNA. In the case of pension funds, however, the SNA does not allow them to have an independent net worth; table 7.2 and paragraph 7.98 of the SNA call for the automatic transfer of any realized and unrealized capital gains in the funds' assets to the net equity of households. It is doubtful whether there is any difference in situation and practices of life insurance and pension funds which justifies a difference in treatment. Most pension funds show a separate figure on the liability side of their balance sheets for the "fund", which does not differ in concept from that shown for policy holders' reserves in the balance sheets of life insurance companies. Any excess of the total value of assets over the value of liabilities to third parties and the "fund" is shown in the balance sheet as separate reserves. An additional reason for treating pension funds in the same way as life insurance companies is that when pension schemes are operated by mutual insurance companies, allocation of increases in the value of assets to households is not recommended in the SNA. The definition of the net equity of households on pension funds in table 7.2 of the SNA has therefore been modified in table 6.3 above.

6.34. The definition of the net equity of households on life insurance reserves and on pension funds is limited to claims on fully-funded schemes; unfunded and social security schemes are excluded. Thus, the saving of households recorded in the transaction accounts of the SNA does not take into account the excess of imputed contributions over pensions paid or social security contributions over benefits. It may be argued that the behaviour of households will be affected by the benefits they expect from unfunded pension schemes or social security. However, in the case of unfunded pension and social security schemes there is no clear equity in a fund and it would be very difficult to value it, however defined.

6.35. There is a further minor point that should be discussed in the case of life insurance. In the case of some countries insurance companies issue capital redemption or sinking fund policies for the amortization of leases and loans; the policy holder makes a periodic payment to an insurance company instead of setting up his own sinking fund. As the payments do not depend in any way on the probability of mortality, these policies are not strictly speaking a form of life insurance. Nor are they a form of casualty insurance as the contracts are long-term and the payments are fixed and certain, not contingent on the occurrence of a stochastic event. The policies have a surrender value. This type of insurance is very small in volume and is to be included with life insurance.

(h) Other accounts receivable and payable

6.36. Other accounts receivable and payable, which exclude trade credit and advances, cover a range of items, such as taxes, interest, dividends, rent, wages and salaries and insurance claims due to be received and paid. It will usually be necessary to derive these balance-sheet figures from the business accounts of transactors. If in the business accounts, the practice is to enter these items on an accrual basis rather than on a due-to-be-paid basis, it will not be practical to adjust the figures to the latter basis in cases such as taxes, interest or insurance premiums where the SNA calls for it.

F. Classification of consumer durables

6.37. Though consumer durables are to be omitted from the balance-sheet accounts, it has been suggested in paragraph 4.5 above that a supplementary table should be compiled in respect of major consumer durables. The classification of consumer durables that is to be used for this purpose is given in table 6.4 below; it has been derived from table 6.1 of the SNA, where the various categories are also defined.

Table 6.4. Classification of major consumer durables

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4.1.1. Furniture, fixtures, carpets and other floor coverings

Beds, chairs, tables, sofas, storage units, and hallboys; carpets, large mats and linoleum; cribs, high chairs, playpens; door and dividing screens; sculptures, carvings, figurines, paintings, drawings, engravings and other art objects; venetian blinds; fireplace equipment; other furniture and fixtures.

4.3.1. Heating and cooking appliances, refrigerators, washing machines and similar major household appliances, including fittings

Covers major equipment like clothes washing and drying, dishwashing, ironing, sewing or knitting machines; electric floor scrubbing, waxing and polishing machines; vacuum cleaners; water softening machines; refrigerators, food freezers and ice boxes; room air-conditioning units; cooking appliances other than spirit stoves and plate-warmers; reflector ovens; camping stoves and similar appliances; toasters; electric fans, and electric coffee-makers and heating appliances; lawn mowers; non-portable safes; water pumps.

Table 6.4. Classification of major consumer durables (continued)

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### 6.1. Personal transport equipment

Motor cars; trailers and caravans; motor cycles and bicycles.

#### 7.1.1. Wireless and television sets and gramophones

Wireless and television sets; gramophones, record players and tape recorders; radio transmitting and receiving sets for amateur radio stations; clock-radios.

#### 7.1.2. Photographic equipment, musical instruments, boats and other major recreational durables

Aeroplanes; boats and outboard motors; cameras, projection equipment, other photographic equipment, binoculars; microscopes and telescopes; pianos, organs, violins, cornets and other major musical instruments; typewriters; power-driven equipment for wood-working, metal-working etc.; horses, swimming pools which are not permanent fixtures.

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## VII. VALUATION

### A. General considerations

7.1. There are a number of factors which must be considered in deciding on the most appropriate mode of valuing the items of national and sector balance-sheet accounts. First, and of major importance, the mode of valuation should result in the most useful data for purposes of studying resources and wealth and economic and financial behaviour. Second, it should be practicable to use the mode of valuation; the values chosen must be measurable and collectable. Third, as is noted in the SNA, a mode of valuation that is useful in the case of all kinds of assets and liabilities would contribute to the comprehensiveness and simplicity of the relationships between these items in the balance-sheet accounts. While this last consideration cannot be decisive, it is important in facilitating the compilation and analysis of balance-sheet data. This would, for example, permit the cross-checking of assets against liabilities in the case of each kind of claim or estimating a sector's holding of a given asset as the difference between the sum of the corresponding outstanding liabilities and the sum of the holdings of the asset by the other sectors.

7.2. National accounting is concerned with combining and comparing the accounts, in this case the balance sheets of all transactors in the economy; it is therefore axiomatic that entries must be valued identically for all transactors. Assets must be valued on the same basis and in terms of prices on the same date, no matter who owns them; liabilities must also be treated uniformly as to mode of valuation and date of prices, no matter who owns them. While it is not essential that financial claims should be valued identically when they are owned as assets and when they are owned as liabilities, adjustment entries would be necessary if the liabilities were to be valued on a different basis than the financial assets. This situation is in contrast with that in the case of private accounting. There the accountant is concerned with only one transactor at a time; and the accounts serve to record the stewardship of the managers of an enterprise over sums of money entrusted to them at different times in the past. Thus in private accounting the cost of acquisition is

the natural mode of valuation for assets; the fact that the costs are an amalgam of figures expressed in different price levels may be ignored. Liabilities are naturally expressed in terms of their nominal or face value. Even private accounting, however, cannot completely ignore the comparability of one set of accounts with another, particularly when the accounts are the main guide to investors on the stock exchange. Assets are sometimes revalued in terms of more recent price levels; accountants are continually discussing how best to portray the effects of inflation in business accounts.

7.3. A principle that is applicable in the case of both business and national accounting is that each asset and liability should be valued separately. This rules out their valuation in terms of the over-all value of a transactor unit. An enterprise should not be valued as a whole, on the basis of either the stock-exchange value of the shareholders' equity or the payment made in a takeover. Instead, each asset and liability should be valued separately; the difference between the sum of the value of the assets and the sum of the values of the liabilities and of share capital is the net worth of the enterprise. Net worth is not valued separately and may change because of changes in the value of individual assets or liabilities.

#### B. General aspects of valuing assets

##### 1. Market values

7.4. In the case of assets, there is little, if any, doubt that the current market values, or the equivalent, recommended in paragraph 2.87 of the SNA are the most appropriate mode of valuation. Investors in financial assets such as securities and tangible assets such as land make decisions in respect of these assets in the light of their sales value in the market. This is also so in the case of producers of stocks of commodities. Users of fixed assets or raw materials in production are concerned with the current costs in the market of replacing these items. Acquisition costs are ruled out because many different price levels are involved.

7.5. The common definition of a market value is the value arrived at in a transaction between a willing buyer and a willing seller, or alternatively the value reached in an arm's-length transaction, into which commercial considerations only enter. The difficulty is that the markets on which transactions meeting these conditions occur are of several different types.

7.6. There is a feature of balance sheets in national accounting which acts as a guide in determining whether or not a given market is a suitable source of the data on market values for use in balance sheets. It arises from the fact that the balance sheets of transactors which are combined into sector balance sheets are, notionally at least, all drawn up at a single moment of time. Given this simultaneity of valuation, the only possible assumption that can be made is that the transactor is continuing in his present business on this present basis. A valuation is needed that is appropriate to the business as a going concern. This means that prices from markets which impose a penalty on liquidation cannot be used. The distinction is between markets for assets which are traded in the normal course of events and markets for assets which are traded rarely and then generally in the exceptional circumstances of the financial distress or liquidation of businesses. Examples of markets which do not impose a penalty on liquidation are the stock exchange, the market for real estate and the market for second-hand motor cars. Examples of markets in which only obsolescent assets are traded or which are used only when the owners of

assets are in financial difficulties, are those for second-hand industrial plant and equipment and for second-hand furniture. Even in the case of financial claims there are markets in the case of some countries in which existing assets are normally traded only in conditions of distress; the market for house mortgages in Britain furnishes an example. None of the markets in which assets are not traded in the normal course of events is suitable for purposes of determining market values for use in balance sheets.

## 2. Variants of market value

7.7. The ideal market for the purposes of the valuation of items of balance sheets is the stock exchange. Not only is each asset traded completely homogeneous, but its appropriate prices are listed at regular intervals. For securities quoted on a stock exchange it is therefore feasible to gather the market prices of individual assets and of broad classes of assets and, in addition, to determine the global valuation of all the existing assets of a given type. The information from the stock exchange may be used to price unquoted securities by analogy. For this purpose it is legitimate to make an allowance for the inferior marketability of the unquoted securities as prices on the stock exchange take account of the degrees of marketability of the range of quoted securities.

7.8. Unfortunately the stock exchange is virtually unique in the case of most countries. While there are a number of other markets from which price quotations would be acceptable, they are usually deficient in some respect. None of them will enable the making of a global valuation of all existing assets of a particular class; most of them are concerned with assets which are far from homogeneous. However, even the most dispersed trading in a market in the most heterogeneous assets may be made to yield useful data on prices, given the availability of a reliable reporting agency and the possibility of classifying transactions into relatively homogeneous, meaningful categories of assets. Undoubtedly in many countries statistical authorities will find it necessary to extend market information into new fields by themselves initiating the reporting and classification of prices.

7.9. The types of market considered thus far all yield data on prices which can be multiplied by indicators of quantity to compute the total market value of different classes of assets held by sectors and of different classes of their liabilities. Between them they cover nearly all financial claims, real estate and livestock. Not all data on prices may be applied in this direct way however; when information on prices is used indirectly, the resulting valuation may be considered to be a variant of market value though it is conceptually similar.

7.10. The most important variant is the use of written-down replacement cost for most tangible reproducible fixed assets. The common means of making these estimates is the perpetual inventory method, which is illustrated in table 10.2 below. When the perpetual inventory method is the only approach used, figures of the written-down replacement value of the stock of fixed assets on a given date, say the beginning of a year, are based first of all on figures of gross fixed capital formation, classified as much as possible according to type of fixed asset and year of acquisition, accumulated over a long enough period to cover the acquisition of all fixed assets in the stock of question. In other words, long enough so that fixed assets acquired before the years when the figures of gross fixed capital formation began, will have been retired, that is their average useful life will have run out. Conceptually, the cost of acquisition of each class (same type and same year of acquisition) of fixed assets is adjusted to current gross replacement cost by an index of

the average change in prices from the year of acquisition to the date in question and an allowance, valued at current replacement cost, for accumulated depreciation between the two dates is deducted in order to arrive at its written-down current replacement cost. In practice, the perpetual inventory may be built year-by-year in the constant prices of a given year, as is illustrated in table 10.2. In that case the net capital formation (gross capital formation less the allowance for depreciation) during a year, adjusted to the constant prices, for a class of fixed assets is added to the written-down value, in the constant prices, of its accumulated gross capital formation as of the beginning of the given year; and the resulting constant-price value of the net capital stock as of the beginning of the next year is converted to current replacement cost as of the latter date. Once the perpetual inventory is built, it is maintained year-by-year by the same means as are outlined above. Alternatively, the perpetual inventory method may be used in year-by-year extension of data gathered in national censuses, or from fire insurance records, on the written-down value of the stock of fixed assets as of a given date, classified as much as possible according to type and age.

7.11. The gathering and compilation of appropriate price index numbers on capital goods for purposes of the perpetual inventory method raises difficult conceptual and practical problems. As each construction project and each price of highly fabricated, heavy machinery and equipment is produced on contract and usually consists of unique features, the compilation of comparable series of price indexes must be based on pricing representative models or proxies. Price series on the models are based on either direct estimates of producers, on the combination of comparable prices of components or on regressions of the transaction values (costs) of completed projects on their strategic characteristics. Even in the case of the pricing of less complex capital goods as proxies or in their own right, serious problems of, and inadequacies in, accounting for quality changes are encountered. The replacement costs arrived at from these price series can be taken as only approximations to market values. In addition to the complications and deficiencies mentioned above, many of the price series gathered on capital goods give too little attention to the valuations of purchasers and therefore do not reflect the forces of demand, which together with those of supply, determine market prices.

7.12. The other two variants of market value both suffer from the imprecision of data on the market prices which have to be used though the values arrived at are not conceptually different from values on the stock exchange. The first of the two variants relates to valuing assets the returns from which are either delayed (as with timber) or spread over a lengthy period (as with subsoil assets). While normal market prices are used to value the ultimate output, a rate of discount must, in addition, be used to compute the present value of the future returns. The converse of this case consists of computing the total value of an asset by capitalizing income; it is then necessary to derive a capitalization factor from information about the market. The rate of discount and the capitalization should undoubtedly both be derived from information based on transactions in the particular type of assets under consideration - forest lands, mines and quarries, ground rents and leases. This information, however, is nearly always vague; the statistician often has to be content with such declarations as "well-secured ground rents are changing hands at 15 years' purchase" or "the general run of investors in mining enterprises expect a return of not less than 10 per cent". Even such vague information about the state of the actual market concerned is to be preferred to the use of a general rate of interest derived from the yield on long-term government bonds.

### 3. Assets in foreign currencies

7.13. Among financial assets there will be some that are basically fixed in terms of foreign currencies, for example, bank deposits and securities that are the liabilities of non-residents. The value of these assets will change when there are changes in official parities or when currencies are "floating". The foreign exchange market is well documented and will provide suitable conversion rates for the assets. The conversion rates used should be the average daily transaction rates during the balance-sheet date; the balance-sheet assets and liabilities are being valued as of that date.

7.14. A special case arises when part of the foreign exchange market is segregated; funds for purchases of foreign securities or capital participations may not be obtained except through a pool of foreign currency fed by prior sales of equivalent national assets owned by non-residents. The foreign currency then acquires a premium value. The private accounting treatment of the premium (or occasionally discount) on the currency varies; the basis of conversion for items expressed in foreign currencies is not always explicitly stated in published accounting documents. For purposes of the balance-sheet accounts, the value in national currency of the foreign assets should reflect the appropriate investment premium.

#### C. Valuation of specific assets and liabilities

##### 1. Reproducible fixed assets

7.15. In the case of most reproducible fixed assets valuation at written-down replacement cost is usually appropriate. In certain circumstances, it may, in addition, be necessary to adjust these values for the obsolescence of fixed assets which have not yet been retired. It will generally be necessary to use gross replacement cost, adjusted for obsolescence, as an approximation to market value in the case of roads, dams, dikes, breakwaters and similar construction projects included in the stock of fixed assets. No allowances for consumption of these fixed assets are called for in the SNA because of the long and indefinite duration of their useful life if properly repaired and maintained. It also seems appropriate to follow this practice in the balance-sheet accounts of the SNA. The sources of data and methods for estimating the written-down replacement cost are outlined in paragraphs 7.10 and 7.11 above. The method most commonly used is the perpetual inventory. As the steps of the perpetual inventory method exactly mirror the sequence of accounts-opening balance sheets, capital finance accounts, reconciliation account and closing balance sheet, the required entries for each of these accounts are systematically compiled.

7.16. Paragraph 7.21 of the SNA recommends that during each year of their expected useful life, the current gross replacement costs of fixed assets should be written-down (depreciated) on a straight-line basis. If, for example, the expected useful life of a machine is 10 years, its allowance for depreciation during a given year is one-tenth of its current gross replacement cost during the year in question. In the case of the transaction accounts of the SNA the allowances for depreciation of a fixed asset during preceding years are not to be adjusted for the change in gross replacement cost of the asset from those years to the current year. For purposes of written-down replacement cost of reproducible fixed assets in the balance-sheet accounts, however, the accumulated allowances for consumption made in past periods, as well as the current year, should be adjusted to the gross replacement cost of the fixed assets as of the balance-sheet date.



7.17. There are of course a number of approaches to writing off the value of fixed assets, for example, straight-line, declining balance, declining rate. The straight-line method is recommended because it is the approach most commonly used in business accounting. The straight-line approach therefore best reflects the considerations and financial behaviour of enterprises in accumulating reserves for replacement of capital goods, in reflecting depreciation charges in prices and so on. In practice, the straight-line method is often applied to the average expected useful life of a given type of fixed asset; its application may be improved by using a frequency distribution of expected useful lives of the fixed assets.

7.18. There are exceptions to the use of valuation at written-down replacement cost in the case of certain reproducible fixed assets. These are discussed in the succeeding paragraphs; the general question of the valuation of land and buildings is dealt with in paragraphs 7.22 through 7.29.

7.19. The first exception is breeding stock, dairy cattle and other livestock which are classed as fixed assets. The SNA does not call for allowances of depreciation in these animals in view of the impracticabilities of making the estimates; their natural growth should however be taken into account in balance-sheet data. Furthermore, the market prices for the livestock fluctuate substantially. Auction prices for livestock are usually available; these can be applied to figures for the heads of livestock to determine their market values. It will be necessary to have figures of both the number of heads and of auction prices in terms of age groups of the different types of livestock so that in the reconciliation account, the element of natural growth may be separated from revaluations due to price changes.

7.20. Written-down replacement cost is of course not applicable in the case of art objects and antiques; they are neither replaceable nor have a limited useful life. While auction and other transaction values may be available for certain antiques and art objects from time to time, the values are usually not available on a regular basis and cannot be used in the case of other antiques and art objects. Furthermore, data on inventories of these items may not be available. Probably the most useful and practical approach to valuing stocks of these items that are held by enterprises and government and private non-profit bodies is to gather data on the values at which they are insured against fire, theft etc.

## 2. Stocks

7.21. In the transaction accounts, additions to, and withdrawals from, stocks, including livestock other than those classed as fixed assets, are, in principle, to be valued at purchasers' values when they are acquired from outside the establishment or at producers' values when they are processed internally. In practice, it may be necessary to value additions to, and withdrawals from, stocks of partially completed goods (work-in-process) at direct cost, perhaps with the addition of margins for indirect costs and normal profits. The purchasers' and producers' values to be used are those current at the time the goods are added to, or withdrawn from, stocks. The physical change in stocks valued at average prices during the period, say a year, is to be shown in the capital finance accounts, leaving the remainder of the difference in value between opening and closing balance sheets to be attributed to stock appreciation, which is an entry for the reconciliation account. This valuation of the physical increase in stocks is consistent with carrying them at current market

values in balance sheets when the valuation at average prices during the period in question is adjusted in the reconciliation account to valuation at prices as of the closing balance-sheet date. The reconciliation account then shows the change in the value of stocks due to the change in prices between the opening and closing balance sheets.

7.22. The balance-sheet figures for stocks will, not infrequently have to be estimated by adjusting figures of book values of stocks in private accounting. The values of stocks in business accounts may be recorded on the principles of first in, first out, last in, first out or average over the period. Recording on the basis of last in, first out will give a good and useful approximation to valuation at market values current at the time of balance-sheet dates, especially if additions to, and withdrawals from, stocks are not too infrequent. The book values may then be accepted for purposes of the balance-sheet accounts. Recording in terms of first in, first out gives the poorest and probably most inappropriate approximation to current market values for purposes of the balance-sheet accounts. In general, it will be necessary to adjust the book values to current market values in terms of the change in prices during the average elapsed period between the time of addition of the goods which are still in stocks and the balance-sheet date. If stock turnover is rapid and changes in prices are not great, the required adjustment is small. For example, if stocks in hand at any one time have been built up over the preceding three months and the average prices of the goods in stock rise by four per cent per year, the excess of current market values over book values will be only one-eighth of four per cent, or five-tenths of a per cent. In these circumstances, if book values are recorded on the basis of average prices during the three-month period, it will probably not be worthwhile to adjust them for purposes of the balance-sheet accounts.

### 3. Non-reproducible tangible assets

#### (a) Land

7.23. However simple the system of land tenure in a country may be, there are considerable difficulties in valuing the ownership of land and buildings by the institutional sectors and in separating the value of land from that of the buildings erected on it. These difficulties do not apply to a global valuation of land any more than they apply to a global valuation of buildings and works at replacement cost by the perpetual inventory method.

7.24. In the case of the global valuation of land, the calculation may be performed in two parts. The first part relates to the valuation of land which is separate from buildings - cultivated land, including plantations, orchards and vineyards, and privately owned amenity land, parklands and pleasure grounds. The calculation is performed by multiplying statistics of area by indicators of market values per unit area. The statistics of both areas and market prices must be classified to some degree according to quality and use of the land and according to regions. A minor problem is that the market values for cultivated land often include farm buildings sold with the land. If it is not feasible to separate the two by use of the method described immediately below, the combined value of the farm buildings and land might be recorded as the value of the land. The other part of the calculation relates to land underlying buildings. For this the normal method is to gather site/structure valuation ratios from valuation appraisals and to deduce the value of land from the replacement cost of the buildings, or from the value on the market of the combined land and buildings. In some instances, the market will furnish data directly on the value of the land.

7.25. The complications begin when the value of the land and buildings owned by institutional sectors is to be estimated; they arise in the case of both land and buildings. The problems are of three kinds: (i) the divergence between the replacement cost of buildings as estimated by the perpetual inventory, using straight-line depreciation and an index of construction costs of new buildings, and the prices which existing buildings fetch on the open market; (ii) the separation of the different interests of transactors in the total value of a site and the building erected on it; and (iii) the separation of the value of the land from the value of the building. The questions may be described by considering three very simple cases.

7.26. The simplest case of all is that of owner occupation, in which the occupier owns both the building and the site on which it is erected. There is no problem; the calculation can proceed exactly as for global valuation. Fortunately this is generally the situation in the case of a high proportion of cases.

7.27. In the second case the occupier rents the building from the owner, who owns both the building and the site. Let us assume that the building has a value at current written-down replacement cost of  $V$  and the site a current market value of  $S$ . The occupier has a 99-year lease with 50 years to run, and he pays a fixed rental of  $R$  throughout the entire period of the lease. Let us further assume that if the lease were being negotiated today the rental would be  $2R$ . (The period which must elapse before the owner can change the rent to  $2R$  is more important than the unexpired life of the lease; the latter assumes importance if there is a possibility of letting the property to another tenant who would be willing to pay a rental of  $2R$ ). If the owner were to sell the building and the site, he would certainly not receive  $V+S$ . The price which he could command would be the fixed rental,  $R$ , capitalized at the going market rate of return; as with the price of a dated bond, the closer the time at which the owner can negotiate a higher rent, the greater the part this reversion to a higher rent plays in the price which the owner can command. Assuming that he has freedom to do so, the lessee can assign the lease to somebody else or sub-let the property to somebody else. In the latter case the lessee could secure  $2R$ ; in the former case the price fetched by the lease would be based on the ratio  $2R/R$  and the period before reversion to a higher rent. In principle,  $V+S$  equals the value of the building and site to the owner plus the value of the lease to the occupier. Effectively the part of the value of the building and site that is equivalent to the difference between their full current value (the sum of the replacement cost of the building and the market value of the land) and the capitalized value of  $R$ , should be attributed to the occupier and included in his balance sheet. The values of the building and land allocated to the occupiers' and owners' balance sheets of course need to be divided between their assets in the form of buildings and those in the form of land. This might be done on the basis of the site/structure valuation ratios from valuation appraisals.

7.28. The third case is still simple enough to be found under any conditions of land tenure. It involves three separate transactors: Owner A, who owns the site; Owner B, who pays ground rent to Owner A for the site but who owns the building, which he has let to the occupier as in the second case. The additional point to note in this case is that the capitalization of the ground rent will not equal the value of the site if that site could command a higher ground rent today and if there is some time to run before the ground landlord can raise the ground rent. Once again the value of the site is shared among the transactors. Exactly the same reasoning applies to cultivated land, including plantations, orchards and vineyards, owned by one transactor and leased to another, and to concessions of mineral rights, fishery rights and so forth.

7.29. Because of the differences in land tenure systems and data availability in various countries only a generalized solution for estimating the ownership according to sector of land and buildings may be offered. We assume that the following estimates have been made: (i) a global replacement cost estimate of the value of buildings, (ii) a global estimate of the value of land, with a separate estimate for the value of land underlying buildings, (iii) the total of rents for land paid and received by each sector and (iv) the total of rents for buildings paid and received (see paragraphs 6.47 and 6.48 of the SNA). Where these rents are not paid separately in respect of the land and in respect of the buildings, site/structure valuation ratios from valuation appraisals may be used to divide the rents into the two components. For rents paid (but not for rents received) it is necessary to have a division between rents on short tenancies and rents on leases for a period of years. This division may usually be determined relatively easily as short tenancies generally apply only to certain classes of property let to certain kinds of occupiers. If it is found that the estimates of replacement costs of buildings deviate substantially from the actual value of buildings on the market, as evidenced by transactions, it is suggested that the estimates should be revised by using indexes of the market prices of buildings in place of indexes of construction cost in using the method of perpetual inventory.

7.30. As problems are presented only in cases where ownership and occupation are divorced, the estimates of ownership of both land and buildings by institutional sectors may start by dealing with cases of complete owner occupation. The value to the owner of tenanted land and tenanted buildings may next be estimated by capitalizing the rents received by each institutional sector for land and for buildings. When the owners' values of owner-occupied and tenanted property are added together, the result should, in principle, fall short of the global value of the land and buildings by an amount equal to the share of ownership accruing to occupiers by virtue of the leases which they hold. These estimates should be made separately for land and for buildings; the two residuals may be divided among institutional sectors in accordance with the rents which are paid by each sector, excluding those paid for short tenancies. A residual method of valuation is never very satisfactory, especially because there is a danger that the capitalization factors used on rents may be incompatible with assumptions made in the case of the global calculations. A direct estimate of the value to lessees of their interest in the total value of property would require the following additional information: (i) estimates, sector by sector, of the extent to which rents actually paid deviate from rents in newly-negotiated leases and (ii) information on the average maturity (period to next rent revision) of leases, sector by sector. In order to separate the interest of the lessees in the total value of the property into that in the buildings and in the land, estimates of the division of the rents into the two components are needed.

(b) Timber tracts

7.31. The value of timber tract should cover the value of the underlying land as well as that of the standing timber. Where the sale and purchase of timber tracts are frequent enough, the market should furnish the data required to make the required estimates. These data should relate to value per unit area classified by kind of timber as well as the situation and character of the land. Otherwise it will be necessary to value timber tracts as the sum of estimates of the values of the standing timber and of the underlying land.

7.32. In a number of countries the national forestry service may already make estimates of the value of growing timber, both state-owned and privately-owned, on generally accepted principles. Timber is a product which takes many years to come to maturity and which yields its services once and for all. The conventional way of valuing standing timber is to discount the future proceeds of selling the timber at prices current in the present after deducting the expenses of bringing the timber to maturity, felling etc. Due allowance is to be made for the value of thinnings. The market value of the underlying land would need to be estimated from land transactions in the market.

(c) Subsoil assets

7.33. The method of valuation of subsoil assets is once again by discounting the estimated net proceeds of sale of the extracted minerals, using as a rate of discount the return expected by investors in mining or quarrying enterprises. Because wasting assets are involved, it is customary to provide for a sinking fund to amortize the capital invested over the expected life of the mine or quarry. Bain discusses several of the conceptual and practical problems of estimating the value of reserves of minerals and other subsoil assets.<sup>6/</sup> For a number of reasons this is a heading under which large and sudden revaluations must be expected arising from factors other than changes in the current price of the asset, changes in the rate of discount or changes in the rate of interest assumed for the sinking fund. Among these factors are: (i) new discoveries may be very extensive, covering whole new fields of deposits, (ii) changes in technology may bring extensive deposits within the range of those commercially exploitable and (iii) changes in market conditions, particularly for fuels, may entail drastic revisions of future rates of output. These changes should be reflected in the reconciliation accounts.

(d) Historic monuments

7.34. Almost any valuation of a historic monument could be defended, anywhere between zero, on the grounds that it was fully depreciated, and the amount that a wealthy individual or corporation would pay to have the monument dismantled and erected elsewhere. As a compromise is necessary, the actual value of the purchases (sales) of historic monuments might be used as the monuments are to be covered in balance sheets only when sold.

4. Non-financial intangible assets

7.35. It has been proposed earlier in this paper that the only items to be included in this category in the case of balance-sheet accounts should be patents, trademarks and copyrights which have been purchased (sold). Thus, their initial value is equivalent to the cost of purchase. It is likely to be necessary in practice to value these assets in terms of the written-down cost of their purchase. The patents, copyrights and trademarks might be written down in a straight-line basis over the period during which they will remain in effect.

5. Financial assets

7.36. Apart from net equity in quasi-corporate enterprises, financial assets may be classified in terms of their mode of valuation. The first group consists of claims which can be realized on demand or at short notice at their full nominal (face)

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<sup>6/</sup> Bain, Foster et al, "Subsoil Wealth", Studies in Income and Wealth, Vol. 12, National Bureau of Economic Research.

value or which cannot be transferred as an asset from one transactor to another. These financial assets are clearly to be carried in balance sheets at nominal (face) value; there can be no question of revaluations other than those arising from changes in currency exchange rates and adjustments. The second group comprises claims which can be transferred as assets from one transactor to another. These are, in principle, to be valued at the value at which they could be transferred, their current market value. Financial assets covered in the categories of table 6.3 above for gold, short-term and long-term bills and bonds and corporate equities, including capital participations fall into the second group.

(a) Gold and IMF special drawing rights

7.37. Official holdings of gold are to be valued as in official figures of reserves, at the price for transactions between central banks; but private holdings may be valued at the appropriate free market price if transactors have legal access to this market. The special drawing rights of the IMF should be established in accordance with the values assigned by the IMF.

(b) Short-term bills and bonds

7.38. There are two main types of short-term bills and bonds to be considered: (i) those issued and traded at a discount and redeemed at par, the difference between which is considered to be interest and (ii) those issued at par or at a stated rate of interest.

7.39. The valuation of short-term bills or bonds of the first type at their market value is consistent with the recommendations in the SNA that receipts of interest should be recorded when due, which in this case is on redemption of the bills or bonds and that their purchase should be recorded at the amount paid. While this is the correct mode of valuation in principle, it may not be the most appropriate in practice. Most holders and issuers of short-term bills and bonds may record the claims at face value and may, at that time, consider interest to be received (paid). In any case, the difference between market and face values may be small; most of the bills or bonds are usually redeemable within a short interval of time; and for purposes of assessing the liabilities of the issuers, face values are wanted. It is therefore probably best to value the short-term bills or bonds under discussion at face value and to take account of the difference between this value and the discounted value at which they are issued or traded by entering the interest as received (paid) at the time of purchase (issue).

7.40. In the case of short-term bills or bonds issued at par at a stated rate of interest, the reasons for using nominal (face) value are stronger than in the case of the short-term bills or bonds discussed in the preceding paragraph. These claims are likely to be traded in the market at par unless there are sharp changes in the going rate of interest. Even then, the differences between their market value and face value will be very small after deduction of accrued interest if it is included in the market values.

(c) Long-term bonds

7.41. There is no doubt that purchasers or holders of long-term bonds make decisions about their investment in the bonds in terms of market values. For example, the market value of the bonds approximates the future receipts on redemption - nominal value - of the bonds discounted at the going rate of interest in the market. In the case of bonds actively traded on organized exchanges, their market value is available

from quotations on transaction on the exchanges. The transaction values used should not include brokers' commissions or other transfer charges or accrued interest. The market value of long-term bonds for which quotations on transaction on exchanges are not available, may be derived by analogy with comparable quoted long-term bonds, taking into account their rate of interest, period to maturity and value on redemption. The issuer and the type of instrument of the quoted long-term bond used should be similar to that of the unquoted long-term bond. The market value assigned to the unquoted bond should reflect its inferior marketability.

(d) Corporate equities including capital participations

7.42. The financial behaviour of holders of corporate equity securities, and even their effective demand for goods and services, reflect the market values of these securities. The market value of corporate equities that are traded on organized exchanges may be determined from the quotations for transactions on these exchanges. Care should be taken to exclude any brokers' commission and other costs of transfers that may be included in these quotations. The market for corporate equities not traded on organized exchanges is usually so narrow that reliable data on market values are usually not available. In the absence of this information, holders of unquoted corporate shares are likely to evaluate the sales prices of the securities in terms of recent and expected dividends and earnings and the general level of prices for comparable quoted securities. Unquoted corporate equities may therefore be valued by analogy with comparable quoted securities, taking into account their ratio of price to earnings and dividends and expected changes in earnings and dividends and allowing for their inferior marketability. The estimated market value of the unquoted equity securities might also be adjusted for the fact that their value usually does not fluctuate as much as the values of the comparable quoted securities.

7.43. A special situation in respect of the valuation of corporate equity securities occurs in the case of the securities of a parent company in its resident or non-resident subsidiaries which are not included in the same statistical unit as the parent. (It should be recalled that by the definition, the parent company should own 50 per cent or more of the corporate equity securities in each of the subsidiaries). Unlike the usual stockholders, the parent company can take possession of the net worth of the subsidiaries by selling its interest in them. Furthermore, the parent company controls the magnitude of subsidiaries' net worth as it determines the amount of dividends that they pay and thus fixes the amount of saving that they retain. It is therefore appropriate to consider that the subsidiaries do not have any independent net worth and that the value of the parents' equity securities in the subsidiaries is equivalent to the difference between the total value of the subsidiaries' assets less the total value of the subsidiaries' liabilities, including only the value of any minority interests in the case of corporate equity securities. The value of the equity securities held by the minority interests might be determined from the market value of the shares.

(e) Proprietors' net equity in quasi-corporate enterprises

7.44. As in the case of subsidiaries, quasi-corporate enterprises should not be considered to have an independent net worth. The proprietors of the enterprises determine the amounts they are to withdraw from or add to the capital of the enterprise and can appropriate all of it. The value of the proprietors' net equity in quasi-corporate enterprises is therefore equivalent to the total value of the enterprise's assets reduced by the value of their liabilities, excluding of course the proprietors' net equity. The actual situation may be very similar to that of quasi-corporate

enterprises in the case of incorporated businesses closely held by very few stockholders only. In such instances, it may be desirable to allocate the total value of the enterprise, reduced by its liabilities to third parties among the stockholders, in proportion to their holdings of shares in it.

#### D. General aspects of valuing liabilities

7.45. It has been recommended in paragraph 7.36 above that claims held as assets should, in principle, be valued in one of two ways: either at nominal (face) value if they can be realized on demand or at short notice at their full nominal value or cannot be transferred as assets from one transactor to another; or at market value if they cannot be realized on demand or short notice and can be transferred as assets from one transactor to another. The application of this principle, tempered by considerations of practicability, resulted in the proposal that market values should be used to value financial assets in the form of gold, long-term bonds and corporate equity securities and that nominal (face) values should be used to value all other financial assets. In either case, account needs to be taken of foreign exchange rates in valuing claims on non-residents expressed in the non-resident currency which are held by residents of the country of reference of the balance-sheet accounts. As was noted in paragraph 7.1 above, assigning the same values to each claim as a liability and as an asset would make an invaluable contribution to the comprehensiveness and simplicity of the relationships between items in the balance-sheet accounts. However, this approach should be adopted in the case of liabilities only if the mode of valuation recommended in the case of the corresponding financial assets is realistic and is appropriate for purposes of understanding and analysing the financial situation and behaviour of the debtors.

7.46. The common practice in business accounting is to value liabilities at nominal (face) value. This is, no doubt, the most suitable mode of valuation in the case of the liabilities which are the counterpart of the financial assets that are to be assigned nominal values, for example deposits, short-term bills and bonds, loans, net equity of households on life insurance and pension fund reserves, trade credit and other accounts payable. In the case of long-term bonds and corporate equities, however, it is argued below that as in the case of those claims held as assets, the use of market values would be useful for purposes of analysing the financial situation and behaviour of transactors.

#### E. Valuing securities as liabilities

##### 1. Long-term bonds

7.47. Valuing long-term bonds at market values is a way of approximating the current discounted value of the future liability to redeem the bonds, based on the going rates of interest in the market. When the remaining period to maturity is very short, say less than a year, market and nominal values will not differ significantly. The valuation of bonds with different dates of redemption and different interest rates are thus put on a common basis of time and valuation, which is essential for purposes of adding together and comparing the liabilities of transactors. Furthermore, the time to redemption of long-term bonds and the current rates of interest in the market are important considerations in the financial calculations and behaviour of the issuers. They will take these factors into account in establishing sinking funds for redemption of the bonds. For example, a rise in the market rate of interest or a longer time to redemption, will reduce the present value of the future liability to redeem the bonds and implies a reduction in the magnitude of the annual additions to



be made to the sinking fund. Issuers may also redeem their long-term bonds early when this option is not restricted by the terms of the bonds if the going rate of interest for long-term bonds is significantly lower than the stated rate of interest of their bonds or if they can obtain more favourable terms from alternative sources of finance, for example, issuing common stock or obtaining bank loans. It is therefore proposed that, in general, long-term bonds as liabilities should be valued at market values as in the case of these bonds as assets.

## 2. Corporate equity securities

7.48. The justification for assigning market values is not as strong in the case of liabilities in the form of outstanding corporate equity securities as in the case of liabilities in the form of long-term bonds.

7.49. As it has been recommended earlier in this paper that an independent net worth should be assigned to incorporate units other than subsidiaries, the possible alternative to valuing their outstanding equity securities at market value appears to be their revalued paid-in value. This is discussed in the sub-section below. The paid-in value, but not the market value, of corporate equity securities is usually given in the business accounts of the issuers of the securities. Market values are, however, more useful than paid-in values for a number of analytical purposes because they have a greater influence on the financial behaviour of incorporate enterprises.

7.50. Studies of the sources and pattern of external finance that incorporated enterprises use furnish an important example of analyses for which the market value of equity securities are more valuable than paid-in value. Companies favour the issue of equity securities in order to raise needed external funds when the market value of their shares is high and of course set the price of the new issues in terms of the market. They are more likely to use other sources of raising external funds when the market value of their equity securities is relatively low. In fact, they may use retained savings to purchase their own equity securities when the market value of the shares are low in order to increase the ratio of their liabilities in bonds and loans to their outstanding stock, in order to raise their earnings per outstanding share or in order to accumulate treasury stock for payment of employee bonuses, etc. The market values of their equity securities are also of interest in studying the circumstances and terms under which mergers or takeovers of incorporated enterprises occur. For example, low ratios of market value to book value for the shares of a company makes it an attractive merger or takeover candidate. And, the relative market values of the outstanding stock of companies involved in a merger or takeover is important in setting the terms of the exchange of stock that usually takes place. The influence of speculative waves and other aberrations in stock exchanges on the market value of equity securities does not seriously limit the usefulness of market valuation for the purposes outlined above.

### F. Alternatives to market valuation of long-term bonds and corporate equity securities

7.51. While assigning current market values to long-term bonds and corporate equity securities is valuable for a number of purposes, it cannot be contended that this mode of valuation is useful for all purposes. For example, securities are often valued at cost of acquisition as assets and at nominal (face) value as liabilities. However, the valuation of securities at cost of acquisition while useful for purposes of each holder, is not suitable for purposes of the balance-sheet accounts. This is so because the costs of acquisition of a given security relate to different times and therefore cannot be combined into useful aggregates for groups of holders of the security. Furthermore, the costs of acquisition of holders of securities would not be a meaningful basis of valuation for the issuers of the securities and the useful equality between the valuation of claims as assets and liabilities would not be preserved.

7.52. The use of nominal value in the case of long-term bonds and revalued paid-in and equivalent value in the case of corporate equity does not have the disadvantages mentioned in the preceding paragraph. These valuations refer to the same date in the case of each issue of a security and would be meaningful in the analysis of both liabilities and financial assets.

7.53. In the case of long-term bonds, the nominal and redemption values are usually identical; the payments to be made on redemption are financially meaningful values to the issuers of the bonds and to the holders who intend to hold the bonds to maturity. Furthermore, the differences between the nominal value and the market values of the bonds indicate the trends in rates of interest in the market since the bonds were issued. The use of nominal values should be practical in the case of both assets and liabilities in the form of long-term bonds.

7.54. The revalued paid-in value of all the outstanding equity securities, excluding treasury stock, of an incorporated enterprise is the sum of the actual amounts paid for sold issues of shares and the value of their issue as dividends and bonuses, revalued in terms of the current market prices of the assets of the enterprise. The use of these values in the case of equity securities and nominal (face) values in the case of liabilities to third parties, in combination with the market valuation of assets, results in a concept of net worth which is equivalent to the accumulation retained earnings and capital gains of the enterprises, valued in terms of current market prices of the assets. This definition of net worth is closely related to the concept of accumulated capital that is used in business accounting. It yields figures of net worth which are indicative of the successfulness and dividend policies of companies and the role of internal financing. The relationship between the revalued paid-in values and market values of the equity securities of incorporated enterprises is also of analytical interest.

7.55. It should be feasible to compile the revalued paid-in values of the liabilities of incorporated enterprises to second parties without undue difficulty from data gathered from, and compiled for, enterprises. This will not be the case for the revalued paid-in values of the equity securities held as financial assets. In order to ascertain these figures, it will be necessary to identify the enterprise in which the shares are held to determine the value per share for the enterprise.

#### G. Consumer and military durables

7.56. It has been proposed in paragraphs 4.4 and 4.5 above that a supplementary table should be compiled on holdings of major consumer and military durables. These holdings may, in general, be valued at written-down replacement cost, as in the case of most reproducible fixed assets. There is a strong case for estimating the depreciation of consumer durables according to the declining balance approach as this yields a closer approximation to the sharp drop in the market value of a number of these durables during their early years of use. In the case of consumer durables, such as second-hand automobiles, for which there are well-organized markets, use might be made of market values instead of written-down replacement cost. The declining balance approach might also be useful in estimating the depreciation of military durables. It should be noted that obsolescence, which should be taken into account in entries reconciling the value of their closing stocks with the sum of the values of their opening stocks and transactions, instead of in depreciation, is a major factor in the changes in the value of military durables during a year.

## VIII. ENTRIES IN RECONCILIATION ACCOUNTS

### A. The nature of the entries

8.1. The function of the reconciliation accounts is to portray all the differences between the opening and closing assets and liabilities on balance-sheet accounts which are not covered on the capital finance accounts. These differences may be divided into the following major categories: (a) revaluations due to price changes, (b) adjustments due to unforeseen events, (c) net increases in the value of tangible assets not accounted for in the capital finance accounts, (d) adjustments due to structural changes and (e) statistical discrepancies and discontinuities. The nature of the first category of entries in the reconciliation accounts is obvious; they account for most of the realized and unrealized capital gains and losses between opening and closing balance sheets. The entries in the second category of reconciliation items are designed to take account of (a) realized losses in fixed assets which cannot be anticipated and therefore are not covered in the capital finance accounts and (b) certain other realized capital losses or gains which cannot be foreseen. It is necessary to include the third category in the reconciliation accounts primarily because changes in stocks of non-reproducible tangible assets are excluded from the capital finance accounts. The last two categories of reconciliation entries concern adjustments to the values of assets and liabilities which arise from shifts in the structure of institutions not covered in the capital finance account and/or changes in statistical treatment.

8.2. The reconciliation items may also be considered from a somewhat different point of view in relationship to entries in the capital finance accounts. The differences in value between succeeding balance sheets may be decomposed into elements of price changes, of the coming into existence (birth) and the passing out of existence (death) of assets and liabilities and of changes in institutional structure and statistical treatment. Changes in prices and in statistical treatment are all shown in the reconciliation accounts; they must also accommodate all births and deaths and changes in institutional structure which are not covered in the capital finance accounts.

8.3. The capital finance accounts cover all births and deaths quite satisfactorily for most financial assets and liabilities, for stocks and for reproducible tangible assets except livestock classed as fixed assets. In the last case, gross fixed capital formation provides for births, deaths are recorded through capital consumption, once the item has reached its estimated life span. Gross fixed capital formation also includes certain entries which relate to initial expenditures only, for example, on improvements to land, on the development and expansion of plantations and on acquisition of breeding stocks; depreciation is not charged against these assets. In the case of improvements to land, subsequent increases to the value of the land come from price changes only; the remaining cases involve capital assets in the form of either plants or livestock, the value of which can, in addition, increase from natural growth. The capital finance accounts provide for the birth (purchase and sale), but not the death, of non-financial intangible assets; the ending of purchased copyrights, patents, etc. must be covered in the reconciliation account.

8.4. The capital finance accounts cover the births and deaths in assets and liabilities resulting from the founding, liquidation and most acquisitions and sales of enterprises. The accounts do not cover the disappearance or appearance of certain financial assets and liabilities because of expansion or contraction in the

consolidation of existing business units into statistical units. This may be due to a parent company acquiring or divesting subsidiaries or simply the redefinition of the units used for statistical purposes. Nor do the capital finance accounts record many of the shifts in the classification of assets and liabilities according to institutional sector or sub-sector as a result of, for example, the reclassification of statistical units. The effects of the latter type of events need to be covered in the reconciliation accounts.

B. The detailed classifications

8.5. Reconciliation entries are classified according to their cause in table 8.1 below. Table 8.2 below relates the various causes of reconciliation to the types of asset and liability affected and shows how these depend on the nature of the entries in the capital finance accounts.

Table 8.1. Classification of items of reconciliation according to use

- 
- 13.1 Revaluations due to price changes
    - 13.1.1 Market prices
    - 13.1.2 Replacement costs
    - 13.1.3 Rate of discount or capitalization factor
    - 13.1.4 Foreign currency exchange rates
  - 13.2 Issue of IMF special drawing rights
  - 13.3 Adjustments in respect of unforeseen events
    - 13.3.1 Unforeseen obsolescence
    - 13.3.2 Differences between allowances included in capital consumption for normal damage to fixed assets and actual losses
    - 13.3.3 Transfers to net equity of households on reserves of life insurance and pension funds
    - 13.3.4 Uncompensated seizure of assets
  - 13.4 Net changes in value of tangible assets not accounted for in the capital finance accounts
    - 13.4.1 Natural growth less depletions
      - 13.4.1.1 Breeding stock, draught animals, dairy cattle and the like
      - 13.4.1.2 Timber tracts and forests
      - 13.4.1.3 Plantations, orchards and vineyards
      - 13.4.1.4 Fisheries
    - 13.4.2 New finds less depletions of subsoil assets
    - 13.4.3 Losses in land and timber tracts in catastrophies and natural events
  - 13.5 Adjustments due to changes in structure and classification
    - 13.5.1 Changes in the institutional sector or sub-sector of owners
    - 13.5.2 Acquisition or divestment of subsidiaries and consolidation or decomposition of statistical units for other reasons
    - 13.5.3 Changes in the classification of entries
  - 13.6 Termination of purchased patents, copyrights, trade marks etc., not accounted for in capital formation account
  - 13.7 Statistical discrepancies and discontinuities
-

Table 8.2. Analysis of items of reconciliation according to entries in the capital finance accounts and according to the type of asset or liability to which they apply

| Entry in capital finance accounts  | Type of asset or liability   | Reconciliation (item numbers from table 8.1) <sup>a/</sup>                               |
|--|--|--|
| <u>Tangible assets</u>   | (Item numbers from tables 6.1, 6.2 or 6.3)   |  |
| Gross fixed capital formation less consumption of fixed capital          | Fixed assets 10.2.1 through 10.2.5   | 13.1.2, 13.3.1, 13.3.2   |
| Gross fixed capital formation for initial outlays                        | Breeding stock, draught animals, dairy cattle, etc. (10.2.6)<br>Land improvements and plantations, orchards and vineyards (11.1)<br>Timber tracts and forests (11.2) | 13.1.1, 13.4.1.1<br>13.1.1, 13.1.3, 13.4.1.3, 13.4.3<br>13.1.1, 13.1.3, 13.4.1.2, 13.4.3 |
| Net purchases of land  | Land (11.1)<br>Subsoil assets (11.3)<br>Fisheries (11.4)   | 13.1.1, 13.1.3, 13.4.3<br>13.1.1, 13.1.3, 13.4.2, 13.4.3<br>13.1.1, 13.1.3, 13.4.1.4     |
| Increase in stocks   | Stocks (10.0)  | 13.1.1   |
| <u>Non-financial intangible assets</u>                                   |  |  |
| Net purchases of intangible assets, n.e.c.                               | Non-financial intangible assets  | 13.6   |
| <u>Financial assets and liabilities</u>                                  |  |  |
| Gold and IMF special drawing rights                                      | Gold and IMF special drawing rights (8.1)  | 13.2   |
| Bonds, long-term   | Bonds, long-term (8.5 or 9.5)  | 13.1.1   |
| Corporate equities, including capital participations                     | Corporate equities including capital participations (8.6 or 9.6)   | 13.1.1   |
| Net equity of households in reserves of life insurance and pension funds | New equity of households on life insurance reserves and on pension funds (8.9 or 9.9)  | 13.3.3   |
| Proprietors' net addition to accumulation of quasi-corporate enterprises | New equity in quasi-corporate enterprises (8.10 or 9.10)   | 13.1.1   |
| All other claims   | All other claims (8.2 through 8.4, 8.7 and 8.8, 8.11 through 8.13 or 9.2 through 9.4, 9.7 and 9.8, 9.11 through 9.13) carried at nominal (face) values               | No specific reconciliation items   |

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 a/ Reconciliation item 13.1.4 is applicable to claims in foreign currencies held or issued by residents; reconciliation item 13.3.4 is applicable to any kind of asset; reconciliation items 13.5.1, 13.5.2, 13.5.3 and 13.7 are applicable to any type of asset or liability.

C. The purpose and application of the detailed categories of table 8.1

8.6. Discussed below are the purposes of the detailed categories of the classification in table 8.1 of entries in the reconciliation accounts according to cause and their use in respect of the classes of assets and liabilities listed in table 8.2.

1. Revaluations due to price changes

8.7. The first three categories of revaluations due to price changes are designed to distinguish the basis on which these revaluations are made. Market values are, in general, suggested as the principal basis for revaluing holdings of land and stocks and assets and liabilities in the form of long-term bonds and corporate equity securities. Market values, i.e. sales receipts, are also automatically the way of valuing any differences between the sales receipts and the values recorded in the opening balance sheets in the case of the sale of tangible capital assets, non-financial intangible assets and financial assets during the period between opening and closing balance sheets. Market values, i.e. redemption payments, have the same sort of role in the case of the payment or liquidation of liabilities. Replacement costs are to be used in the case of most types of reproducible tangible assets and their depreciation. It should be noted that the replacement costs at the date of a balance sheet should be used in revaluing the accumulated allowances up to that time for the consumption of the existing stock of fixed capital at that time. Capitalizing streams of income are likely to be the principal way of valuing subsoil deposits and timber tracts. The last category of price revaluations - foreign exchange rates - is of course relevant in the case of financial assets and liabilities denominated in foreign currencies.

2. Adjustments due to unforeseen events

8.8. Allowances for the consumption of reproducible fixed assets do not cover unforeseen obsolescence in these assets and the amount included for their normally expected damage may fall short of the actual damage. Adjustments must therefore be made in the reconciliation accounts for the decline in the value of the reproducible capital assets due to these events.

8.9. It was noted in paragraph 6.32 above that mutual insurance companies may transfer realized and perhaps unrealized capital gains on their investments to their policy holders' reserves when these gains are considered to be permanent. Pension funds follow the same practice. When these unforeseen transfers occur entries are required in the reconciliation accounts in order to adjust the households' equity on life insurance or pension funds reserves. It should be noted that while the capital gains in question are due to the revaluation of the investments of the companies or funds, the timing of the transfers cannot be foreseen. The mutual life insurance companies may, however, pay out their realized capital gains in the form of reversionary cash bonuses to the policy holders. In this case, the payment will be recorded as a capital transfer in the capital finance accounts and no adjustments entries are required in the reconciliation accounts. For technical reasons it is common for part of the transfer to policy holders to take the form of a terminal bonus, payable on all policies maturing within a specified period. To the extent that this bonus is payable on death claims, a conceptual difficulty arises because no policy holder can foresee the date of his death with certainty. The difficulty is best ignored in practice.

8.10. Adjustment entries in the reconciliation accounts are also needed when governments take possession of the assets of individuals or companies without compensation for reasons other than the payment of taxes, fines or similar levies. While such seizures of assets might be recorded as capital transfers in the capital finance accounts, it seems preferable to treat them as capital losses. If the individuals or companies are compensated for the transfer of the assets, the events would be recorded in the form of transaction on the capital finance account. If the compensation falls substantially short of the market or related values of the assets, it is suggested that the difference should be recorded in the adjustment entry for uncompensated seizures of assets.

3. Net increases in value of tangible assets omitted from capital finance accounts

8.11. While the initial outlays on acquiring livestock treated as fixed assets, for example breeding stocks, draught animals, dairy cattle, and on developing and expanding timber tracts, plantations, orchards and vineyards, and fisheries are included in gross fixed capital formation, the natural growth and depletions in these assets are not covered in the transactions of the capital finance accounts. In the case of land, outlays on improvements are treated as gross fixed capital formation but provision is not made for deducting the sweeping away of land by tidal waves and other catastrophies. Reductions in the usefulness of land because of erosion, waterlogging, advance of deserts and other arid areas should be covered in the reconciliation accounts as reduction in the market value of the land. Similarly, upgrading in the usefulness of land which is not due to outlays on improvement should be recorded as increases in market values. In the case of subsoil assets, the reconciliation accounts furnish the means of recording the value of new finds reduced by the value of depletions. Revaluations of subsoil assets may also take place for such reasons as the rise in the market price of minerals or the development of more efficient techniques of exploiting the subsoil deposits. The aforementioned figures on the land and on mineral reserves are of considerable interest in dealing with the environmental problems and the efficient management of these natural resources.

8.12. Though the decomposition of changes in the value of the capital assets in question into an element of natural growth or new finds reduced by depletions and an element of price change is quite clear conceptually, difficulties may be encountered in practice in disentangling these two elements. This will be so especially when the changes in value of the capital assets under discussion are estimated as the difference between closing balance sheets and the sum of opening balance sheets and the relevant capital transactions. In order to decompose the differences into the two elements it will be necessary to have at least weighted index numbers of the change in prices or in quantities between the opening and closing balance sheets in the case of each of the assets in question.

4. Adjustments due to changes in structure and classification

8.13. Changes in the holdings of assets and liabilities ascribed to the various institutional sectors and sub-sectors due to the birth or death of enterprises and other institutional units are included in capital transactions. This is also so in the case of many sales (purchases) of enterprises. The birth of institutional units gives rise to purchases of assets and issuance of liabilities; the liquidation of enterprises results in sales of assets and redemptions of liabilities; the sale (purchase) of enterprises involves exchanges in financial assets and perhaps liabilities. In the case of the liquidations or the sales (purchases), the values at which transactions in assets or liabilities are carried out may differ from those shown in the transactions' opening balance sheets for the period in question. Such differences in values would be recorded in the reconciliation accounts as due to revaluations due to price changes.

8.14. However, the entries in capital finance accounts do not account for all changes in the balance sheets for institutional sectors and sub-sectors that are brought about by changes in the structure of institutional units. For example, if as a result of a purchase (takeover), an independent enterprise becomes a subsidiary of the purchasing unit and is therefore consolidated with the parent into a single statistical unit, the equity securities of the subsidiary held by the parent unit will disappear from the balance-sheet accounts without a counterpart entry in the capital finance accounts. If a parent unit sells (divests itself of) a subsidiary, the equity securities it still holds in the enterprise will appear in the balance-sheet accounts without a corresponding capital transaction. Adjustment entries in the reconciliation accounts are therefore required in respect of the aforementioned changes in the structure of institutional units. Other kinds of structural changes in institutional units that demand adjustment entries are the incorporation of previously unincorporated enterprises or vice versa. In these institutions, the institutional sector in which the assets and liabilities of the enterprises are classified changes without any entries in capital transactions except for the issue or withdrawal of corporate equity securities. Adjustment entries would also be required even when statistical units or items used in the balance-sheet accounts are reconstructed or reclassified for reasons other than structural changes in institutional units. An example is the division of the value of land, buildings, subsoil assets between owners and occupiers in the case of certain types of leases or concessions.

#### 5. Termination of purchased intangible non-financial assets

8.15. The purchases (sales) of patents, copyrights, trade marks and similar intangibles, but not the termination of these purchased rights, are recorded in the capital finance accounts. As a consequence, provision must be made for recording their termination in the reconciliation accounts.

#### 6. Statistical discrepancies and discontinuities

8.16. The differences in entries between the opening and closing balance sheets which cannot be accounted for by transactions and the appropriate revaluations and adjustments, should be treated as statistical discrepancies. The statistical discrepancy may be due to unknown inaccuracies or inconsistency in any of the aforementioned items of data, or to known deficiencies which it is not feasible to correct. The former type of statistical discrepancies are more likely to occur when different sources of basic data are used to estimate the balance-sheet and linking figures. Known deficiencies in the estimates which it is not feasible to correct may be due to such factors as sampling errors or biases from non-response in gathering basic data from enterprises and other transactors.

8.17. Discontinuities in estimates between opening and closing balance sheets may arise from changes in the sources of data, in the scope or representativeness of the sources or in methods of estimation. It would be desirable to make estimates for the closing balance sheets based on both the old and new methods and show the difference under discontinuities.

### IX. STANDARD ACCOUNTS AND TABLES

9.1. This chapter concerns the proposed standard accounts and supporting tables on balance sheets and reconciliation items. The accounts and tables and associated notes are set out in annexes 9.2 and 9.3, respectively. Annex 9.1 gives the codes used to identify the balance-sheet and reconciliation accounts and the entries in



them. The codes are designed to be consistent with those used in the transaction accounts and supporting tables as well as to show the place of, and links between, various assets and liabilities and reconciliation items. The text of this chapter is devoted to discussing the purposes, uses and structure of the standard accounts and supporting tables on balance sheets and reconciliation entries and the periodicity with which, and manner in which, they might be used in presenting data. The orders of priority in which the various balance sheet and reconciliation accounts and tables might be compiled is dealt with in section X, in conjunction with the discussion of the bases and methods of estimating these data.

A. The purpose of the standard accounts and tables

9.2. The proposed standard balance-sheet and reconciliation accounts are intended to delineate their basic features and their role in the system of national accounts and to furnish guidance on the presentation, international and national, of the main items of balance sheets and of reconciliation between closing balance sheets, on the one hand, and the opening balance sheets and capital transactions, on the other. The standard supporting tables to the balance-sheet and reconciliation accounts are designed to portray certain facets of the system which are not shown in the accounts, namely the accounts on specific categories of assets and liabilities, the detailed schemes of classification, and the financial links between residents and the rest of the world. The standard accounts consist of the accounts of the institutional sectors only and the claims between them and the rest of the world are not distinguished from those between the resident institutions only. The main purpose of the standard tables, however, is to exhibit the series of detailed balance-sheet data which should be compiled for national and international use but which cannot be conveniently presented in the form of accounts.

9.3. The standard tables, in calling for tabulations of data of considerable interest for purposes of economic analysis and policy making, supplement the standard accounts in a number of ways. Tables 31, 32 and 33 concern the balance-sheet and reconciliation accounts of the sub-sectors of the institutional sectors and table 30 is designed to combine the accounts of the sub-sectors into balance-sheet and reconciliation data for private and public institutions. Table 29 calls for the detailed classifications of the assets and liabilities of a nation as a whole and table 34 details each category of financial assets and liabilities according to the creditor and debtor sectors and sub-sectors. Table 35 is designed to delineate the financial assets and liabilities of resident institutions in respect of the rest of the world. Included among the tables is a supplementary table on consumer and military durables which is not part of the balance-sheet and reconciliation accounts.

9.4. The standard balance-sheet and reconciliation accounts and tables are intended to furnish international guidance on goals for their national development and extension within the SNA. It is recognized that few, if any, countries are now in a position to compile the wealth of data listed in the accounts and tables. National statistical authorities will need to develop balance-sheet and reconciliation data gradually, in the light of the requirements and statistical circumstances of their countries. The international reporting of the data called for in the standard balance-sheet and reconciliation accounts and tables must of course be tied to the availability of national data. International reporting must therefore wait until a significant number of countries compile balance-sheet data on a regular basis. Countries will, in this work, probably give different orders of priority to institutional

sectors. It will therefore be essential initially, and as national work on balance sheets proceeds to consider the institutional sectors to be covered in the international reporting of the data. It may also be necessary to be selective in respect of the scope or detail of classification of the assets or liabilities for which internationally comparable data are sought. The selection should of course be made in the light of the availability of national data and the requirements for international information.

9.5. The manner in which the balance-sheet and reconciliation data are grouped and arranged may differ from one situation to another. It should, for example, reflect the data which are presented, and the purposes for which, and the circumstances in which, the series of data are estimated and published. The primary guidance which the standard accounts and tables are intended to give therefore concerns the data to be compiled. The standard accounts and tables are designed to furnish guidance, in addition, on the way in which the balance-sheet and reconciliation data might be organized and arrayed so as to exhibit the structure of, and relations between, holdings and revaluations of assets and liabilities.

#### B. The character and structure of the standard accounts

9.6. Here the character and structure of the standard balance-sheet and reconciliation accounts are discussed in the light of the analytical purposes which they are intended to serve and in the light of the SNA, in which they are designed to fit. Attention will be called to certain differences in the view given of the system between the standard accounts proposed here and the matrices and accounts set out in Chapter II of the SNA.

##### 1. General considerations

9.7. The standard balance-sheet and reconciliation accounts set out in annex 9.2 are divided into two classes of accounts. The I balance-sheet and reconciliation accounts, in combination with the I transaction accounts presented in annex 8.2 of the SNA, complete the consolidated accounts of the nation. Similarly the VII accounts for each institutional sector supplement their III accounts. As in the case of the entries of the capital finance accounts of the III accounts of the SNA, the combination of VII accounts for the various institutional sectors yields the I balance-sheet and reconciliation accounts. It will be desirable to supplement these accounts for the nation as a whole with balance-sheet, capital finance and reconciliation accounts which restrict the entries on financial claims to those between residents and non-residents. This question is discussed further below.

9.8. All the balance-sheet and reconciliation accounts have been designed so that the entries in the opening balance sheets at the beginning of a period plus the sum of the corresponding items in the capital finance and reconciliation accounts for the period, equal the entries in the closing balance sheets at the end of the period. As leases and concessions in respect of structures and land, subsoil assets and other non-reproducible tangible assets are included in fixed assets and non-reproducible tangible assets, respectively, in the case of the balance-sheet accounts but in net purchases of non-financial intangible assets in the case of the capital finance accounts, it is necessary to re-classify the purchases and sales of leases and concessions during the period in the reconciliation accounts in order to maintain the aforementioned links between the accounts in stocks and the accounts on flows. Re-classification in the reconciliation accounts is also necessary in the case of improvements to land, development and extension plantations, orchards, timber tracts

and the like, construction in connexion with subsoil assets and transfer costs in respect of the purchase (sale) of non-reproducible tangible assets as these outlays are treated as gross fixed capital formation in the capital finance account but are included in the value of the appropriate non-reproducible tangible assets in the balance-sheet accounts.

9.9. Each balance-sheet and reconciliation account balances as the entry on net worth is equivalent to the difference between the sum of the items on assets and the items on liabilities. For certain analytical purposes, for example evaluating the financial soundness of incorporated enterprises, it is desirable to study the difference between the value of their holdings of assets and the value of their liabilities to third parties, that is liabilities excluding equity securities and other capital participations. Unlike the matrix and the illustrative balance sheets in Chapter II of the SNA (tables 2.1 and 2.15 and 2.16), liabilities have therefore been divided into those to third parties and those to second parties, that is to holders of equity securities and capital participations and an item on the sum of liabilities to second parties and net worth has been included in all the balance-sheet and reconciliation accounts. This residual is also likely to be more stable than the residual "net worth". A third identity in the accounts is that the same value is assigned to a financial claim as an asset and as a liability. Thus, in the case of a given category of claims, the total assets of residents and of the rest of the world in respect of residents is equivalent to the total of the liabilities of residents and of the rest of the world to residents.

## 2. The accounts for the nation

9.10. The I accounts set out in annex 9.2 repeat the capital finance account of the nation besides delineating its opening and closing balance sheets and its reconciliation account, in order to illustrate the way in which the balance sheets are linked by the other two accounts. The capital finance account in annex 9.2 differs somewhat from that presented in annex 8.2 of the SNA because it has been rearranged in order to delineate clearly its correspondence with the balance-sheet and reconciliation accounts. It covers capital transactions which correspond to all of the items of the latter accounts except "land, timber tracts, subsoil assets and other non-reproducible tangible assets". That item is omitted because the corresponding entry in the capital finance account - purchases minus sales of land, subsoil assets and other non-reproducible tangibles - is equivalent to nil in the case of the consolidated accounts of the nation. By definition, resident institutions only make these purchases and sales. The capital finance entry "saving and net capital transfers from the rest of the world" is the counterpart of the item "net worth" in the balance-sheet and reconciliation accounts.

9.11. The I opening and closing balance-sheet accounts are primarily designed to portray the structure, in broad outline, of the assets and liabilities of a nation and to measure her wealth. Comparisons between the balance sheets of course show the trends in these respects; the events that lead to the trends are recalled in the capital finance and reconciliation accounts. In order to serve these purposes best, the main I accounts represent a combination, rather than a consolidation, of the VII accounts for the various institutional sectors. Combination of the VII accounts is also more convenient. If these accounts were to be consolidated into the I accounts, it would be wise, but may be too difficult initially, to separate financial claims between residents and non-residents from those between residents. The sole difference between the combination of the VII accounts and their consolidation occurs in

respect of financial claims; in the latter case, only financial assets in respect of, and liabilities to, the rest of the world would be shown in the I accounts. The consolidated balance sheets of a nation thus indicate that its national wealth is equivalent to the sum of its tangible assets and its financial assets in respect of the world reduced by its liabilities to the rest of the world. This definition usefully focuses attention on the creditor/debtor position of a nation. It is therefore desirable to supplement the main accounts on balance sheets, capital finance and reconciliation for the nation as a whole with a set of accounts which clearly exhibit the financial claims between its and the rest of the world. The adjustments required, in the main I accounts are set out in the notes of annex 8.2. The items of the main I accounts on financial claims have also been arranged so that net values (the differences between assets and corresponding liabilities) may be assessed in the case of third and second party claims between residents and non-residents. It should be noted that there may be significant errors in these net values as they are measured as residuals.

### 3. The accounts of the institutional sectors

9.12. In the standard accounts for the institutional sectors (VII accounts), only their closing balance sheets and reconciliations accounts are set out as their opening balance sheets would be shown as their closing balance sheets for the previous period and their capital finance accounts would appear in their standard transactions accounts for the period in question. The proposed details in the classification of tangible assets and financial claims in the VII accounts varies from one institutional sector to another but is greater than that for the I accounts. It has been adjusted to the expected assortment and importance of the various items in the balance sheets of each institutional sector and the consequent differences in analytical requirements for the data. The suggested classification of financial claims in the case of each institutional sector is tailored to the assortment of claims usually held and the requirements for information.

#### (a) Non-financial enterprises, corporate and quasi-corporate

9.13. Non-reproducible tangible assets and financial claims are classified in substantial detail in the case of non-financial corporate and quasi-corporate enterprises because they are important items in the holdings and consequently in the analysis of the soundness and behaviour of these enterprises. For the same reasons, it may be desirable to present a classification of the fixed assets of the enterprises in their VII accounts and distinguish selected financial claims into those between residents only and those between residents and non-residents.

9.14. For example, holdings of agricultural land and timber tracts are important in assessing the resources for production of corporate and quasi-corporate enterprises engaged in extracting and processing agricultural and forest products; holdings of subsoil assets are of course essential to the activities of mining companies. The assortment of liabilities of non-financial companies portrays their relative dependence on internal and external sources of finance and their financial soundness and leverage. The magnitude and composition of financial assets relative to that of tangible assets are indicative of their surplus funds for expanding production and their liquidity. The figures of stocks and trade credit and advances are also of interest in assessing their needs for working capital. Furthermore, detailed data on the tangible assets and financial claims of non-financial companies are wanted in studying their distribution among the institutional sectors and the rest of the world.

(b) Financial institutions

9.15. It is necessary to classify holdings of financial assets and liabilities in greater detail in the case of financial institutions than in the case of other institutions. The classification must be detailed in order to furnish information for the analysis of such matters as the role and importance in the economy of financial intermediaries, the supply of money and quasi-money to the economy, the monetary base and bank reserve ratios, and the amount and liquidity of financial claims in the case of the rest of the world. A detailed classification of the financial claims held by financial institutions is also needed in order to study their liquidity and portfolio behaviour. Figures from the balance sheets of monetary and other financial institutions are, in addition, used in building financial models and, in the absence of other data, to assess the financial holdings and behaviour of the rest of the economy. For the latter purpose, it is desirable to supplement their combined VII balance sheet add reconciliation accounts with consolidated accounts.

9.16. A detailed classification of the tangible assets of financial institutions is not needed. These assets are often incidental to the main activities of the institutions and account for an insignificant part of the tangible assets of the nation. This is not, however, the case when banks engage in the leasing of capital goods or insurance companies engage in direct investment in real estate. Data on the holdings of tangible assets by financial institutions are, in any case, of interest in assessing their liquidity.

(c) General government

9.17. As government bodies, in particular, the central government, often own, and control the use of, a substantial part of the land, timber tracts, and mineral assets of their country, the VII accounts for general government calls for a classification of non-reproducible tangible assets into their main categories. The treasuries of ministries of finance of governments sometimes serve as the monetary authority and hold the international reserves of a country and a number of governments furnish finance for industrial, electricity, housing and transport and other enterprises of their country. For these reasons it is important to classify the financial assets of general government in some detail. As the liabilities of government bodies are usually restricted to certain types of instruments, the use of fewer detailed categories is suggested in their classification than in the classification of financial assets.

9.18. In the case of general government, as in the case of other institutional sectors, the proposed VII accounts combine the corresponding accounts of central government, the state and local governments and the social security funds of a nation. A significant portion of the liabilities of the state and local governments may be to the central government, which may play an important role in determining their financial practices. And, the financial assets of social security funds are often the liabilities of the central government, which determines the assortment of these financial assets. In view of this and in order to assess the financial role of general government in the economy, it is desirable to supplement the combined VII accounts with consolidated accounts.

(d) Private non-profit institutions serving households

9.19. In some countries, private non-profit institutions, such as universities, hospitals, medical research institutes and foundations, have substantial endowments which they invest in securities and deposits. These financial assets are therefore

shown separately in the VII accounts for the institutions, while the other financial assets are grouped together. In the case of liabilities, it is thought worthwhile to distinguish loans from other liabilities. In the case of tangible assets, it appears to be sufficient to classify them into stocks, fixed assets and non-reproducible tangible assets. Structures are likely to be the important fixed assets in the case of the private non-profit bodies.

(e) Households, including private unincorporated non-financial enterprises

9.20. As private unincorporated non-financial enterprises are included in this institutional sector, it is important to include a detailed classification of the non-reproducible tangible assets for purposes of assessing the resources of such agricultural, timber extracting, mineral and fishery enterprises. These unincorporated enterprises and the households owning real estate may also possess a significant portion of the non-reproducible tangible assets of a country. As households are an important source of funds for investment and other uses, information is wanted for studies of their portfolios of financial assets and their liquidity preferences. Detailed classification of their financial assets is therefore suggested in the VII accounts of households. On the other hand, as the forms in which households may contract liabilities are few in number, a short list of liabilities is set out in their VII accounts. Figures of the net worth of households are of considerable interest in assessing the distribution of the wealth of a nation.

C. The character and structure of the supporting tables

1. General considerations

9.21. The main purpose of the proposed supporting tables to the VII accounts is to furnish the more detailed information on the balance sheets and reconciliation items that it is not convenient to show in the form of accounts. In carrying this out, the supporting tables delineate the classifications of balance-sheet and reconciliation items in greater detail than is feasible in the accounts. Some of the tables also portray certain aspects of structure that are not set out in the balance-sheet and reconciliation accounts, for example the balance between the financial assets and liabilities in each type of claim.

9.22. For the sake of convenience, the standard tables in annex 9.2 except table 29, deal with closing balance sheets and reconciliation items only. Opening balance sheets would of course contain the same items as closing balance sheets and the capital-finance data, which together with reconciliations link opening and closing balance sheets, would be shown in standard tables on transactions. In publication it may be desirable to show together, data on opening and closing balance sheets and on capital finance and reconciliations.

2. The standard tables for the nation

(a) Table 29

9.23. Table 29 is designed to detail the assets and liabilities of the nation that are summarized in the consolidated accounts of the nation. Unlike the other standard tables, it calls for data on opening stocks and on the transaction links between opening and closing stocks. It also presents the classifications of tangible assets, but not the classification of claims, in full detail. It is advantageous, if feasible, to show the financial assets held on, and liabilities to, the rest of the world in this, and certain other, standard tables. In the case of this and other standard tables, footnotes should be given on the face values of long-term bonds as liabilities and on corporate equity securities as liabilities and net worth, each revalued in terms of the revaluation of assets.

(b) Table 34

9.24. This standard table furnishes a matrix of the financial assets and liabilities of the nation. It is designed to portray the details of (i) the creditor-debtor relationships between and within institutional sectors and sub-sectors and between resident institutions and the rest of the world, as well as the amounts outstanding of each kind of claim and (ii) the international reserves and offset to these reserves of the nation. The classification of claims and of institutional sectors is the same as that of the matrix in table 24 of the SNA, on transactions in financial assets and liabilities.

9.25. The classification of claims is to be shown in full detail in the upper panel of the table; the classification for the institutional sectors in respect of financial institutions and general government is also to be elaborated. Details on the sub-sectors of the former sector are of special importance in view of their roles as financial intermediaries. The table will thus exhibit the amounts outstanding and the creditor-debtor relationships in the case of each type of claim. In order to show this, as well as the identity between the value of the financial assets and the value of the liabilities in the case of each type of claim, columns on the rest of the world are included in the table.

9.26. The lower panel of table 34 relates to the claims between residents and the rest of the world only; attention is focussed on those claims which make up the international reserves and offsets to these reserves of the nation. While practically all of these claims will be the financial assets and liabilities of the central bank and treasury of a nation, other resident institutions may have financial assets or liabilities which should be included. The international reserves and offsets held by the central bank or treasury of a nation cannot be uniquely defined in terms of categories of claims; they must in general be distinguished from other holdings in the same kind of claim, instrument by instrument. It should be emphasized that the definitions of international reserves and offsets to be used in table 34 are established by the International Monetary Fund.

(c) Table 35

9.27. This table focuses on the financial assets of, and liabilities to, the rest of the world of residents; it thus is designed to summarize the data called for in the columns on the rest of the world in table 34. As in the case of table 34, the table consists of two panels - one on all foreign financial assets and liabilities and the other on international reserves and offsets thereto.

3. The standard tables of the institutional sectors and sub-sectors

9.28. Standard tables 30 through 33 are designed to support the Accounts VII on the balance-sheet and reconciliation entries of the institutional sectors. Table 30 is designed to accumulate the data in respect of the sub-sectors on private and public institutions in each of the institutional sectors; tables 31 through 33 are intended to be used to show the data for key subdivisions of selected institutional sectors. Tables on financial institutions and private non-profit institutions serving households are not included among these tables because table 34 calls for the data that are of importance in the case of the sub-sectors of the former institutions and because there are no sub-sectors in the case of the latter institutions.

(a) Table 30

9.29. This table represents an extension of table 19 of the SNA, on the capital transactions of private and public institutions; it presents their closing holdings and the reconciliation entries, which together with the capital transactions, link their opening and closing wealth. While the detail in classification of financial claims is the same in both tables, it is greater in the case of non-reproducible tangible assets in table 30. A more detailed classification of the latter assets is proposed in table 30 because of the considerable interest in whether the natural resources of a country are owned and controlled by private or government interests. The entries in table 30, except those on proprietors' net equity of residents in non-resident quasi-corporate corporations, are to be compiled by combining the corresponding entries for the private and public statistical units in each of the relevant institutional sectors; the sectors for households, including unincorporated enterprises and private non-profit institutions serving households, of course consist of private institutions only and the sector for general government is of course made up of public institutions only. It may be advantageous to compile a supplement to the table, consolidating the claims between general government and non-financial and financial public enterprises.

(b) Tables 31 through 33

9.30. In the case of each of these tables, the classifications of non-reproducible tangible assets and of financial claims are tailored to reflect the pattern of holdings and reconciliation items of the institutional sector covered. In general, these classifications are the same as in the standard accounts which the tables support. The differences between these tables and the corresponding accounts consist of the subdivision of the institutional sectors shown in the accounts.

9.31. Because of the important differences in the mix of reproducible and non-reproducible tangible assets and financial claims held by non-financial corporate and quasi-corporate enterprises engaged in different kinds of economic activities, it is proposed in table 31 that the enterprises should be subdivided according to division of the International Standard Industrial Classification in the case of manufacturing and its major divisions in the case of other kinds of activity. This classification according to kind of activity is also recommended in standard table 20 of the SNA on the capital and income and outlay transactions of the corporate and quasi-corporate non-financial enterprises. While the detail in classification in tables 31 and 20 is the same, in the case of financial claims, it is more detailed in table 31 in the case of non-reproducible tangible assets. A more detailed classification is proposed in view of the requirements for data on holdings of natural resources in order to deal with exploitation, environmental and other questions.

9.32. For the same reasons, standard table 32, on the closing balance-sheet and reconciliation entries of the sub-sectors of general government, is also more detailed than table 21 of the SNA, on their transactions in capital and income and outlay, in the case of non-reproducible tangible assets. The detail in classification in the case of other items is the same in the two tables. The detail in classification of assets and liabilities in table 32 is identical with that in its parent account VII C.

9.33. Table 33, on the closing stocks and revaluations of the holdings of sub-sectors of households, including unincorporated enterprises, is correlated with table 23 of the SNA, on their capital and income and outlay transactions. However, while distinctions are drawn between households with owners of unincorporated agricultural



enterprises and households with owners of unincorporated non-agricultural enterprises in table 33, as in table 23, the sub-sectors for employees and persons in other status in the case of table 23 are combined. The proposals for sub-sectoring in table 33 are less detailed than those in table 23 because it is thought that significant differences would exist in the mix of assets and liabilities between the three kinds of households distinguished but not between the households of employees and of persons in status other than owners of unincorporated enterprises or employees. As in the case of the supporting tables for subdivisions of other institutional sectors, table 33 calls for the same detail in classification as table 23 in the case of financial claims but greater detail in the case of non-reproducible tangible assets. The detail in the classification of assets and liabilities is the same in table 33 as in account VII E, which it supports.

#### D. A supplementary table

9.34. A supplementary table on the opening and closing stocks of major consumer and military durables is included in annex 9.3. In addition to figures of the value of these stocks, the table calls for data on the links between the two values - gross additions to, and depletions in, the stocks during the period (final consumption expenditure in the SNA and depreciation and obsolescence, respectively) and changes in their replacement cost and other reconciliation items between the beginning and end of the period. The supplementary table is proposed because of the interest in statistics on the stocks of major consumer durables for purposes of studies of household welfare, expenditure behaviour and wealth and in data on major military durables for purposes of assessing the holdings of general government. A much higher priority should be assigned to compilation of the data in the case of major consumer durables than in the case of military durables. Not only are the requirements for the statistics greater in the case of the consumer durables but also the difficulties of measuring replacement costs, depreciation and obsolescence and other reconciliation items are more severe in the case of military durables.

#### E. Use of the standard accounts and tables in compiling and presenting data

##### 1. Forms of presenting data

9.35. The data called for in the standard accounts and tables may be organized into tabulations in a number of ways. The form in which it will be desirable to, and convenient to, compile and present the data, nationally and internationally, will depend on such circumstances as the kind of information to be furnished and emphasized, as the audience to whom, and the requirements for which, the data are provided, and as the medium and format in which series are to be arrayed. In particular, the format of certain standard tables is not intended to furnish guidelines in respect of the presentation of the data. The main objective is to indicate the series which should be compiled.

9.36. Where, for example, the main interest is in the changes in the composition of the balance sheets of institutional sectors or sub-sectors during a single period of time, opening and closing balance sheets for the period and the linking capital transactions and reconciliation items during the period, should be presented in the same table. The table might consist of columns on these items and rows devoted to the institutional sectors or sub-sectors and their assets, liabilities and net worth. Such a modification in content and format would be applicable in the case of standard tables 30 through 33 and standard accounts VII. Where, on the other hand, attention is to be focussed on trends over a considerable period of time in the holdings of the nation, institutional sectors and/or sub-sectors in certain categories of assets or

liabilities and on trends over the period in their net lending (borrowing) or net worth, the data on each of these categories might be separated into individual tables. The balance-sheet dates could be shown in the columns of these tables and the nation, institutional sectors, and/or sub-sectors and the items of the category of holdings in question could be arrayed in the rows.

9.37. Separate tables on categories of assets such as fixed assets, non-reproducible tangible assets and financial assets, may also be of interest. Trends over a number of years of all of the balance sheets, capital-finance and reconciliation items for the nation, an institutional sector or a sub-sector may be dealt with in the same way. In this case, the rows of the tables might be ordered to show the holdings, capital transactions and reconciliation items in respect of each kind of asset, in respect of each kind of liability to third parties, in respect of each kind of liability to second parties and in respect of net worth, in succession. Similar tables might also be wanted in order to summarize the trends in the case of each major category of assets, in the case of liabilities to third parties and in the case of liabilities to second parties and net worth.

9.38. In the case of matrices as in table 34, where the emphasis is on the links and the relationships between the various items of data, the aforementioned arrangements of data are usually inappropriate. In these instances, a complete section of a table, or a complete table, should be devoted to presenting the data for each year. If attention is to be focussed on the mix of assets and liabilities held by an institutional sector, on the relationships between these assets and liabilities and on the circumstances leading to changes in the pattern of these portfolios, the layout in standard accounts I and in table 29 is preferable. In order to portray this over a number of years, the credit side of each of the accounts may be placed under the debit side of the account or the credit and debit sides may be placed side-by-side on facing pages.

9.39. In compiling and issuing data for general use, it may often be desirable to present simpler versions of the relevant standard tables. For this purpose, the detail in classification of assets and liabilities in the standard tables may be substantially reduced or tables may be presented on selected categories of the assets or liabilities or on their net worth.

## 2. Periodicity of compilation

9.40. The question of the frequency with which and the dates for which balance sheets should be compiled and issued is part of the practical problems which are discussed in the next section of this paper. In that section means are suggested whereby a complete set of annual balance sheets may be developed. The key to this is the ability to make independent estimates of revaluations, so that they, coupled with the transactions recorded in the capital finance accounts, enable one to proceed from one balance sheet to another.

Annex 9.1. Coding of entries in the standard accounts and tables

The codes used in the standard accounts and tables for balance sheets and reconciliation are consistent with, and supplement, the codes used in standard accounts and tables for transactions in annex 8.1 of the SNA. Financial claims are assigned the same codes as in the capital finance accounts and tables and the system of coding is extended to codes for the balance-sheet and reconciliation and for tangible and non-financial intangible assets. Table 9.1 shows the codes used to identify the accounts under discussion.

Table 9.1. The codes for the accounts

| Account                 | Code |
|-------------------------|------|
| Capital finance         | 5    |
| Balance-sheet accounts  | 7    |
| Reconciliation accounts | 8    |

Table 9.2 gives the codes for the entries in balance-sheet and reconciliation accounts and the associated capital finance accounts.

Table 9.2. The codes for class and categories of entries in  
balance-sheet and reconciliation accounts and  
associated capital finance accounts

- 
- 2. Disposition of goods and services
    - 2.5 Increases in stocks
    - 2.6 Gross fixed capital formation
  - 7. Balancing items and entries on capital account n.e.c. other than financial claims
    - 7.1 Saving
    - 7.4 Purchases of land, net
    - 7.5 Purchases of intangible assets n.e.c. net
    - 7.6 Capital transfers, net
    - 7.10 Net worth and liabilities to second parties
      - 7.10.1 Net worth

Table 9.2. The codes for class and categories of entries in balance-sheet and reconciliation accounts and associated capital finance accounts (continued)

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|                   |  |  |                 |                       |
|-------------------|--|--|-----------------|-----------------------|
| Financial claims: | 8.   | Financial assets;  | 9.              | Financial liabilities |
| 8.0               | All financial assets;                                      | 9.0  | All liabilities |                       |
| 8.1               | Gold and IMF special drawing rights                        |  |                 |                       |
| 8.2               | and 9.2  | Currency and transferable deposits                                       |                 |                       |
|                   | 8.2.1 and 9.2.1  | In national currency   |                 |                       |
|                   | 8.2.2 and 9.2.2  | In foreign currency  |                 |                       |
| 8.3               | and 9.3  | Other deposits   |                 |                       |
|                   | 8.3.1 and 9.3.1  | In national currency   |                 |                       |
|                   | 8.3.2 and 9.3.2  | In foreign currency  |                 |                       |
| 8.4               | and 9.4  | Bills and bonds, short-term  |                 |                       |
| 8.5               | and 9.5  | Bonds, long-term   |                 |                       |
| 8.6               | and 9.6  | Corporate equity securities, including capital participations            |                 |                       |
| 8.7               | and 9.7  | Short-term loans, n.e.c.   |                 |                       |
| 8.8               | and 9.8  | Long-term loans, n.e.c.  |                 |                       |
| 8.9               | and 9.9  | Net equity of households on life insurance reserves and on pension funds |                 |                       |
| 8.10              | and 9.10   | Proprietors' net equity in quasi-corporate enterprises                   |                 |                       |
| 8.11              | and 9.11   | Trade credit and advances  |                 |                       |
| 8.12              | and 9.12   | Other accounts receivable and payable                                    |                 |                       |
| 8.13              | and 9.13   | Other  |                 |                       |
| 10.               | Reproducible tangible assets                               |  |                 |                       |
| 10.1.0            | Stocks   |  |                 |                       |
| 10.1.1            | Goods producing industries                                 |  |                 |                       |
| 10.1.2            | Wholesale and retail trade                                 |  |                 |                       |
| 10.1.3            | Other industries   |  |                 |                       |
| 10.1.4            | Stocks of government services                              |  |                 |                       |
| 10.2.0            | Fixed assets   |  |                 |                       |
| 10.2.1            | Residential buildings                                      |  |                 |                       |
| 10.2.2            | Non-residential buildings                                  |  |                 |                       |
| 10.2.3            | Other construction works                                   |  |                 |                       |
| 10.2.4            | Transport equipment  |  |                 |                       |
| 10.2.5            | Machinery and equipment                                    |  |                 |                       |
| 10.2.6            | Breeding stock, draught animals, dairy cattle and the like |  |                 |                       |

Table 9.2. The codes for class and categories of entries in  
balance-sheet and reconciliation accounts and  
associated capital finance accounts (continued)

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- 11. Non-reproducible tangible assets
    - 11.1.0 Land
      - 11.1.1 Land underlying buildings and works
      - 11.1.2 Cultivated land
      - 11.1.3 Other
    - 11.2 Timber tracts and forests
    - 11.3.0 Subsoil assets and extraction sites
      - 11.3.1 Coal, oil and natural gas reserves
      - 11.3.2 Metallic mineral reserves
      - 11.3.3 Other non-metallic mineral reserves
    - 11.4 Fisheries
    - 11.5 Historic monuments
  - 12. Non-financial intangible assets
-

Annex 9.2. The standard accounts and notes

## I. Consolidated accounts for the nation

## Account 7. Opening balance-sheet account

|                |  |                                   |   |
|----------------|--|-----------------------------------|---|
| 7.10.1         | Stocks   | 7.9.0                             | Liabilities to third parties                                  |
| 7.10.2         | Fixed assets (net of accumulated consumption of fixed capital)                 | except                            |   |
| 7.11.0         | Land, timber tracts, subsoil assets and other non-reproducible tangible assets | 7.9.6                             | and   |
| 7.12.0         | Non-financial intangible assets  | 7.9.10                            |   |
| 7.8.0          | Financial assets except capital  | 7.7.10                            | Liabilities to second parties and net worth                   |
| except         |  |                                   |   |
| 7.8.6 and      | participations   | 7.9.6                             | Corporate equity securities, including capital participations |
| 7.8.10         |  |                                   |   |
| 7.8.6          | Corporate equity securities, including capital participations                  | 7.9.10                            | Net equity of proprietors' in quasi-corporate enterprises     |
| 7.8.10         | Net equity of proprietors in quasi-corporate enterprises                       |                                   |   |
|                |  | 7.7.10.1                          | Net worth (national wealth)                                   |
| Opening assets |  | Opening liabilities and net worth |   |

## Account 5. Capital finance account

|              |  |                         |   |
|--------------|--|-------------------------|---|
| 5.2.5        | Increase in stocks   | 5.9.0                   | Net incurrences of liabilities                              |
| 5.2.6-       | Net fixed capital formation  | except                  | to third parties  |
| 5.3.3        |  | 5.9.6                   |   |
| 5.7.5        | Purchases of non-financial intangible assets from the rest of the world, net | and                     |   |
|              |  | 5.9.10                  |   |
| 5.8.0        | Net acquisition of financial assets except capital participations            | 5.9.6                   | Net incurrence of liabilities to second parties             |
| except       |  | and                     |   |
| 5.8.6        |  | 5.9.10                  |   |
| and          |  | 5.7.1                   | Saving and net capital transfers from the rest of the world |
| 5.8.10       |  | and                     |   |
| 5.8.6        | Corporate equity securities, including capital participations                | 5.7.6                   |   |
| 5.8.10       | Net equity of proprietors in quasi-corporate enterprises                     |                         |   |
| Accumulation |  | Finance of accumulation |   |

I. Consolidated accounts for the nation (continued)

Account 8. Reconciliation account

|        |   |               |   |
|--------|---|---------------|---|
| 8.10.1 | Stocks  | 8.9.0         | Liabilities to third parties, of                              |
| 8.10.2 | Fixed assets (net of accumulated consumption of fixed capital), of which:                 | except which: |   |
|        | 8.13.1 Revaluations due to price changes  | 8.9.6 and     | 8.13.1.1 Revaluations due to market prices                    |
| 8.11   | Land, timber tracts, subsoil assets and other non-reproducible tangible assets, of which: | 8.9.10        | 8.13.1.4 Revaluations due to national currency exchange rates |
|        | 8.13.1 Revaluations due to price changes  | 8.7.10        | Liabilities to second parties and net worth                   |
|        | 8.13.3 Net increases intangible assets not covered in capital finance accounts            | 8.9.6         | Corporate equity securities including capital participations  |
| 8.8.0  | Financial assets, except capital participations, of which:                                | 8.9.10        | Net equity of proprietors in quasi-corporate enterprises      |
| 8.8.6  | 8.13.1.1 Revaluations due to market prices  | 8.7.10.1      | Net worth   |
| 8.8.10 | 8.13.1.4 Revaluations due to foreign currency exchange rates                              |               |   |
| 8.8.6  | Corporate equity securities including capital participation                               |               |   |
| 8.8.10 | Net equity of proprietors in quasi-corporate enterprises                                  |               |   |
| Total  |   | Total         |   |

Account 7. Closing balance-sheet account

|                |  |                                   |   |
|----------------|--|-----------------------------------|---|
| 7.10.1         | Stocks   | 7.9.0                             | Liabilities to third parties                                  |
| 7.10.2         | Fixed assets (net of accumulated consumption of fixed capital)                   | except                            |   |
| 7.11           | Land, timber tracts, subsoil deposits and other non-reproducible tangible assets | 7.9.6 and                         |   |
| 7.12.0         | Non-financial intangible assets  | 7.9.10                            |   |
| 7.8.0          | Financial assets, except capital participations                                  | 7.7.10                            | Liabilities to second parties and net worth                   |
| 7.8.6          |  | 7.9.6                             | Corporate equity securities, including capital participations |
| 7.8.10         |  | 7.9.10                            | Net equity of proprietors in quasi-corporate enterprises      |
| 7.8.6          | Corporate equity securities, including capital participations                    | 7.7.10.1                          | Net worth (national wealth)                                   |
| 7.8.10         | Net equity of proprietors in quasi-corporate enterprises                         |                                   |   |
| Closing assets |  | Closing liabilities and net worth |   |

## VII. Balance sheets and reconciliation accounts

## A. Non-financial enterprises, corporate and quasi-corporate

## Account 7. Closing balance-sheet account

|                |   |                                   |   |
|----------------|---|-----------------------------------|---|
| 7.10.1         | Stocks  | 7.9.0                             | Liabilities to third parties except                           |
| 7.10.2         | Fixed assets (net of accumulated consumption of fixed capital)                  | 7.9.6                             | and   |
| 7.11.0         | Land, timber tracts, sub-soil assets and other non-reproducible tangible assets | 7.9.10                            |   |
| 7.11.1         | Land  | 7.9.4                             | Bills and bonds, short-term                                   |
| 7.11.2         | Timber tracts   | 7.9.5                             | Bonds, long-term  |
| 7.11.3         | Sub-soil assets   | 7.9.7                             | Short-term loans, n.e.c.                                      |
| 7.11.4         | Fisheries   | 7.9.8                             | Long-term loans, n.e.c.                                       |
| 7.12.0         | Non-financial intangible assets   | 7.9.11                            | Trade credit and advances                                     |
| 7.8.0          | Financial assets  | 7.9.12                            | Other liabilities and   |
| 7.8.1          | Gold  | 7.9.13                            |   |
| 7.8.2          | Currency and transferable deposits  | 7.7.10                            | Liabilities to second parties and net worth                   |
| 7.8.3          | Other deposits  | 7.9.6                             | Corporate equity securities, including capital participations |
| 7.8.4          | Bills and bonds, short-term   | 7.9.10                            | Proprietors' net equity in quasi-corporate enterprises        |
| 7.8.5          | Bonds, long-term  | 7.7.10.1                          | Net worth   |
| 7.8.6          | Corporate equity securities, including capital participations                   |                                   |   |
| 7.8.7          | Loans, n.e.c.   |                                   |   |
| and            |   |                                   |   |
| 7.8.8          |   |                                   |   |
| 7.8.10         | Proprietors' net equity in non-resident quasi-corporate enterprises             |                                   |   |
| 7.8.11         | Trade credit and advances   |                                   |   |
| 7.8.12         | Other financial assets and  |                                   |   |
| 7.8.13         |   |                                   |   |
| Closing assets |   | Closing liabilities and net worth |   |



## VII. Balance sheets and reconciliation accounts (continued)

## A. Non-financial enterprises, corporate and quasi-corporate (continued)

## Account 8. Reconciliation account

|            |   |          |  |
|------------|---|----------|--|
| 8.10.1     | Stocks  | 8.9.0    | Liabilities to third parties, except of which:               |
| 8.10.2     | Fixed assets (net of accumulated consumption of fixed capital), of which: | 8.9.6    | and  |
| 8.13.1     | Revaluations due to price changes   | 8.9.10   | 8.9.5 Bonds, long-term                                       |
| 8.11.0     | Land, timber tracts, sub-soil assets and other non-reproducible assets    | 8.7.10   | Liabilities to second parties and net worth                  |
| 8.11.1     | Land, of which:   | 8.9.6    | Corporate equity securities, including capital participation |
| 8.13.1     | Revaluation due to price change   | 8.9.10   | Proprietors' net equity in quasi-corporate enterprises       |
| 8.13.3.1.3 | Natural growth less, depletion, plantations, orchards and vineyards       | 8.7.10.1 | Net worth  |
| 8.11.2     | Timber tracts, of which:  |          |  |
| 8.13.1     | Revaluation due to price change   |          |  |
| 8.13.3.1.2 | Natural growth less depletion   |          |  |
| 8.11.3     | Sub-soil assets, of which:  |          |  |
| 8.13.1     | Revaluation due to price change   |          |  |
| 8.13.3.2   | New funds less depletion  |          |  |
| 8.11.4     | Fisheries, of which:  |          |  |
| 8.13.1     | Revaluation due to price change   |          |  |
| 8.13.3.1.4 | Natural growth less depletions  |          |  |
| 8.8.0      | Financial assets, of which:   |          |  |
| 8.8.1      | Gold  |          |  |
| 8.8.5      | Bonds, long-term  |          |  |
| 8.8.6      | Corporate equity securities, including capital participations             |          |  |
| 8.8.10     | Proprietors' net equity in quasi-corporate enterprises                    |          |  |
|            | Total   |          | Total  |

VII. Balance sheets and reconciliation accounts (continued)

B. Financial institutions

Account 7. Closing balance-sheet account

|                |  |                                   |   |
|----------------|--|-----------------------------------|---|
| 7.10.1         | Stocks   | 7.9.0                             | Liabilities to third parties  |
| 7.10.2         | Fixed assets (net of accumulated consumption of fixed capital)                               | except                            |   |
| 7.11.0         | Land, timber tracts, sub-soil assets and other non-reproducible tangible assets              | 7.9.6                             |   |
| 7.12.0         | Non-financial intangible assets  | and                               |   |
| 7.8.0          | Financial assets   | 7.9.10                            |   |
| 7.8.1          | Gold and IMF special drawing rights  | 7.9.2                             | Currency issued by the central bank and transferable deposits               |
| 7.8.2          | Currency and transferable deposits<br>Of which by monetary institutions, liability of:       | 7.9.3                             | Other deposits  |
|                | i. Resident institutions   | 7.9.4                             | Bills and bonds, short-term   |
|                | ii. The rest of the world  | 7.9.5                             | Bonds, long-term  |
| 7.8.3          | Other deposits   | 7.9.7                             | Short-term loans, n.e.c.<br>Of which by monetary institutions to:           |
| 7.8.4          | Bills and bonds, short-term  |                                   | i. Resident institutions  |
| 7.8.5          | Bonds, long-term   |                                   | ii. The rest of the world   |
| 7.8.6          | Corporate equity securities, including capital participations                                | 7.9.8                             | Long-term loans, n.e.c.   |
| 7.8.7          | Short-term loans, n.e.c.<br>i. Of which the central bank, liability of the rest of the world | 7.9.9                             | Net equity of households on reserves of life insurance and of pension funds |
| 7.8.8          | Long-term loans, n.e.c.  | 7.9.11                            | Other liabilities   |
| 7.8.10         | Proprietors' net equity in quasi-corporate enterprises                                       | 12 and                            |   |
| 7.8.11         | Other financial assets   | 13                                |   |
| 12 and         |  | 7.7.10                            | Liabilities to second parties and net worth                                 |
| 13             |  | 7.9.6                             | Corporate equity securities, including capital participations               |
|                |  | 7.9.10                            | Proprietors' net equity in quasi-corporate enterprises                      |
|                |  | 7.7.10.1                          | Net worth   |
| Closing assets |  | Closing liabilities and net worth |   |

## VII. Balance sheets and reconciliation accounts (continued)

## B. Financial institutions (continued)

| Account 8. Reconciliation account |   |          |  |
|-----------------------------------|---|----------|--|
| 8.10.1                            | Stocks  | 8.9.0    | Liabilities to third parties<br>except of which:                                   |
| 8.10.2                            | Fixed assets (net of accumulated<br>consumption of fixed capital)                       | 8.9.6    |  |
| 8.11.0                            | Land, timber tracts, sub-soil<br>assets and other non-reproducible<br>assets, of which: | and      |  |
| 8.13.1                            | Revaluations due to price<br>change   | 8.9.10   |  |
| 8.8.0                             | Financial assets, of which:   | 8.9.5    | Bonds, long-term   |
| 8.8.1                             | Gold and IMF special<br>drawing rights  | 8.9.9    | Net equity of household<br>on reserves of life in-<br>surance and pension<br>funds |
| 8.8.5                             | Bonds, long-term  | 8.7.10   | Liabilities to second parties<br>and net worth                                     |
| 8.8.6                             | Corporate equity securi-<br>ties, including capital<br>participations                   | 8.9.6    | Corporate equity<br>securities   |
| 8.8.10                            | Proprietors' net equity<br>in quasi-corporate<br>enterprises                            | 8.9.10   | Proprietors' net equity<br>in quasi-corporate<br>enterprises                       |
|                                   |   | 8.7.10.1 | Net worth  |
| Total                             |   | Total    |  |

## VII. Balance sheets and reconciliation accounts (continued)

## C General government

## Account 7. Closing balance-sheet account

|                |   |                                   |   |
|----------------|---|-----------------------------------|---|
| 7.10.1         | Stocks  | 7.9.0                             | Liabilities   |
| 7.10.2         | Fixed assets (net of accumulated consumption of fixed capital)                  | 7.9.2                             | Currency issued by the treasury and transferable deposits |
| 7.11.0         | Land, timber tracts, sub-soil assets and other non-reproducible tangible assets | 7.9.3                             | Other deposits  |
| 7.11.1         | Land  | 7.9.4                             | Bills and bonds, short-term                               |
| 7.11.2         | Timber tracts   | 7.9.5                             | Bonds, long-term  |
| 7.11.3         | Sub-soil assets   | 7.9.7                             | Short-term loans, n.e.c.                                  |
| 7.11.5         | Historical monuments  | 7.9.8                             | Long-term loans, n.e.c.                                   |
| 7.12.0         | Non-financial intangible assets   | 7.9.11                            | Other liabilities   |
| 7.8.0          | Financial assets  | 12 and                            |   |
| 7.8.1          | Gold  | 13                                |   |
| 7.8.2          | Currency and transferable deposits  | 7.7.10.1                          | Net worth   |
|                | Of which by central government, liability of:                                   |                                   |   |
|                | i. Resident institutions  |                                   |   |
|                | ii. The rest of the world   |                                   |   |
| 7.8            | 7.8.3 Other deposits  |                                   |   |
|                | 7.8.4 Bills and bonds, short-term   |                                   |   |
|                | 7.8.5 Bonds, long-term  |                                   |   |
|                | 7.8.6 Corporate equity securities, including capital participations             |                                   |   |
|                | 7.8.7 Short-term loans, n.e.c.  |                                   |   |
|                | 7.8.8 Long-term loans, n.e.c.   |                                   |   |
|                | 7.8.10 Proprietors' net equity in quasi-corporate government enterprises        |                                   |   |
|                | 7.8.11 Other financial assets   |                                   |   |
|                | 12 and  |                                   |   |
|                | 13  |                                   |   |
| Closing assets |   | Closing liabilities and net worth |   |

VII. Balance sheets and reconciliation accounts (continued)

C. General government (continued)

Account 8. Reconciliation account

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>8.10.1 Stocks</li> <li>8.10.2 Fixed assets (net of accumulated consumption of fixed capital)</li> <li>8.11.0 Land, timber tracts, sub-soil assets and other non-reproducible assets               <ul style="list-style-type: none"> <li>8.11.1 Land, of which:                   <ul style="list-style-type: none"> <li>8.13.1 Revaluations due to price change</li> </ul> </li> <li>8.11.2 Timber tracts, of which:                   <ul style="list-style-type: none"> <li>8.13.1 Revaluations due to price change</li> <li>8.13.3.1.2 Natural growth less depletions</li> </ul> </li> <li>8.11.3 Sub-soil assets, of which:                   <ul style="list-style-type: none"> <li>8.13.1 Revaluations due to price change</li> <li>8.13.3.2 New finds less depletions</li> </ul> </li> <li>8.11.4 Fisheries                   <ul style="list-style-type: none"> <li>8.13.1 Revaluations due to price change</li> <li>8.13.3.1.4 Natural growth less depletions</li> </ul> </li> <li>8.11.5 Historical monuments</li> </ul> </li> <li>8.8.0 Financial assets, of which:               <ul style="list-style-type: none"> <li>8.8.1 Gold and IMF special drawing rights</li> <li>8.8.5 Bonds, long-term</li> <li>8.8.6 Corporate equity securities, including capital participations</li> <li>8.8.10 Net equity in quasi-corporate government enterprises</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>8.9.0 Liabilities, of which:               <ul style="list-style-type: none"> <li>8.9.5 Bonds, long-term</li> </ul> </li> <li>8.7.10.1 Net worth</li> </ul> |
| Total  | Total  |

VII. Balance sheets and reconciliation accounts (continued)

D. Private non-profit institutions serving households

Account 7. Closing balance-sheet account

|                  |  |                                   |                             |
|------------------|--|-----------------------------------|-----------------------------|
| 7.10.1           | Stocks   | 7.9.0                             | Liabilities                 |
| 7.10.2           | Fixed assets (net of accumulated consumption of fixed capital)         | 7.9.7                             | Loans, n.e.c. and 8         |
| 7.11.0           | Land, timber tracts, sub-soil assets and other non-reproducible assets | 7.9.11                            | Other liabilities 12 and 13 |
| 7.12.0           | Non-financial intangible assets  | 7.7.10.1                          | Net worth                   |
| 7.8.0            | Financial assets   |                                   |                             |
| 7.8.1            | Gold   |                                   |                             |
| 7.8.2            | Currency and transferable deposits                                     |                                   |                             |
| 7.8.3            | Other deposits   |                                   |                             |
| 7.8.4            | Bills and bonds, short-term  |                                   |                             |
| 7.8.5            | Bonds, long-term   |                                   |                             |
| 7.8.6            | Corporate equity securities, including capital participations          |                                   |                             |
| 7.8.7            | Other financial assets   |                                   |                             |
| 8, 11, 12 and 13 |  |                                   |                             |
| Closing assets   |  | Closing liabilities and net worth |                             |

Account 8. Reconciliation account

|        |   |          |             |
|--------|---|----------|-------------|
| 8.10.1 | Stocks  | 8.9.0    | Liabilities |
| 8.10.2 | Fixed assets (net of accumulated consumption of fixed capital)                  | 8.7.10.1 | Net worth   |
| 8.11.0 | Land, timber tracts, sub-soil assets and other non-reproducible tangible assets |          |             |
| 8.8.0  | Financial assets, of which:   |          |             |
| 8.8.1  | Gold  |          |             |
| 8.8.5  | Bonds, long-term  |          |             |
| 8.8.6  | Corporate equity securities including capital participations                    |          |             |
| Total  |   | Total    |             |

VII. Balance sheets and reconciliation accounts (continued)

E. Households, including private unincorporated non-financial enterprises

Account 7. Closing balance-sheet account

|                |  |                                   |                           |
|----------------|--|-----------------------------------|---------------------------|
| 7.10.1         | Stocks   | 7.9.0                             | Liabilities               |
| 7.10.2         | Fixed assets (net of accumulated consumption of fixed capital)                             | 7.9.7                             | Short-term loans, n.e.c.  |
| 7.11.0         | Land, timber tracts, sub-soil assets and other non-reproducible tangible assets, of which: | 7.9.8                             | Long-term loans, n.e.c.   |
| 7.11.1         | Land   | 7.9.11                            | Trade credit and advances |
| 7.11.2         | Timber tracts  | 7.9.12                            | Other liabilities and 13  |
| 7.11.3         | Sub-soil assets  | 7.7.10.1                          | Net worth                 |
| 7.11.4         | Fisheries  |                                   |                           |
| 7.12.0         | Non-financial intangible assets  |                                   |                           |
| 7.8.0          | Financial assets   |                                   |                           |
| 7.8.1          | Gold   |                                   |                           |
| 7.8.2          | Currency and transferable deposits   |                                   |                           |
| 7.8.3          | Other deposits   |                                   |                           |
| 7.8.4          | Bills and bonds, short-term  |                                   |                           |
| 7.8.5          | Bonds, long-term   |                                   |                           |
| 7.8.6          | Corporate equity securities, including capital participations                              |                                   |                           |
| 7.8.7          | Loans, n.e.c.  |                                   |                           |
| and 8          |  |                                   |                           |
| 7.8.9          | Net equity of households on reserves of life insurance and pension funds                   |                                   |                           |
| 7.8.10         | Proprietors' net equity in quasi-corporate enterprises                                     |                                   |                           |
| 7.8.11         | Trade credit and advances  |                                   |                           |
| 7.8.12         | Other financial assets and 13  |                                   |                           |
| Closing assets |  | Closing liabilities and net worth |                           |

VII. Balance sheets and reconciliation accounts (continued)

E. Households, including private unincorporated non-financial enterprises (cont'd)

Account 8. Reconciliation account

|        |   |          |             |
|--------|---|----------|-------------|
| 8.10.1 | Stocks  | 8.9.0    | Liabilities |
| 8.10.2 | Fixed assets (net of accumulated consumption of capital assets), of which:      | 8.7.10.1 | Net worth   |
|        | 8.13.1 Revaluations due to price change   |          |             |
| 8.11.0 | Land, timber tracts, sub-soil assets and other non-reproducible tangible assets |          |             |
|        | 8.11.1 Land, of which:  |          |             |
|        | 8.13.1 Revaluations due to price change   |          |             |
|        | 8.13.3.1.3 Natural growth less depletion  |          |             |
| 8.11.3 | Sub-soil assets, of which:  |          |             |
|        | 8.13.1 Revaluations due to price change   |          |             |
|        | 8.13.3.2 New finds less depletions  |          |             |
| 8.11.4 | Fisheries, of which:  |          |             |
|        | 8.13.1 Revaluations due to price change   |          |             |
|        | 8.13.3.1.4 Natural growth less depletion  |          |             |
| 8.8.0  | Financial assets, of which:   |          |             |
|        | 8.8.1 Gold  |          |             |
|        | 8.8.5 Bonds, long-term  |          |             |
|        | 8.8.6 Corporate equity securities, including capital participations             |          |             |
|        | 8.8.10 Proprietors' net equity in quasi-corporate enterprises                   |          |             |
|        | Total   |          | Total       |



Notes to the standard accounts

The values of presenting supplementary balance sheets, capital finance and reconciliation accounts to the I accounts for the nation on a strictly consolidated basis has been indicated in the text of this section of the paper. For this purpose the modifications set out in the table below are needed in the specified entries of the accounts.

## Account 7. Opening balance-sheet accounts

|                                 |   |                                 |  |
|---------------------------------|---|---------------------------------|--|
| 7.8.0<br>7.8.6<br>and<br>7.8.10 | Financial assets, except capital participations in respect of the world                     | 7.9.0<br>7.9.6<br>and<br>7.9.10 | Liabilities to third parties in except the rest of the world                   |
| 7.8.6                           | Corporate equity securities, including capital participations, of non-resident corporations | 7.7.10                          | Liabilities to second parties in the rest of the world and net worth           |
| 7.8.10                          | Net equity of proprietors in non-resident quasi-corporate enterprises                       | 7.9.6                           | Corporate equity securities, including capital participations of non-residents |
|                                 |   | 7.9.10                          | Net equity of non-resident proprietors in quasi-corporate enterprises          |

## Account 5. Capital finance account

|                                 |   |                                 |   |
|---------------------------------|---|---------------------------------|---|
| 5.8.0<br>5.8.6<br>and<br>5.8.10 | Net acquisition of financial assets except capital participations in respect of the rest of the world | 5.9.0<br>5.9.6<br>and<br>5.9.10 | Net incurrence of liabilities to except third parties and the rest of the world |
| 5.8.6                           | Corporate equity securities, including capital participations, of non-resident corporations           | 5.7.10                          | Liabilities to second parties in the rest of the world and net worth            |
| 5.8.10                          | Net equity of resident proprietors in non-resident quasi-corporate enterprises                        | 5.9.6                           | Corporate equity securities, including capital participations, of non-residents |
|                                 |   | 5.9.10                          | Net equity of non-resident proprietors in quasi-corporate enterprises           |

## Account 8. Reconciliation accounts

|        |   |        |   |
|--------|---|--------|---|
| 8.8.0  | Financial assets, except capital participations, in respect of                              | 8.9.0  | Liabilities to third parties in   |
| 8.8.6  | the rest of the world, of which:  | 8.9.6  | except the rest of the world, of which:   |
| and    |   | and    |   |
| 8.8.10 | 8.13.1.1 Revaluations due to market prices  | 8.9.10 | 8.13.1.1 Revaluations due to market prices                                      |
|        | 8.13.1.4 Revaluations due to foreign currency exchange rates                                |        | 8.13.1.4 Revaluations due to national currency exchange rates                   |
| 8.8.6  | Corporate equity securities, including capital participations, of non-resident corporations | 8.7.10 | Liabilities to second parties in the rest of the world and net worth            |
| 8.8.10 | Net equity of proprietors in non-resident quasi-corporate enterprises                       | 8.9.6  | Corporate equity securities, including capital participations, of non-residents |
|        |   | 8.9.10 | Net equity of non-resident proprietors in quasi-corporate enterprises           |

## Account 7. Closing balance-sheet accounts

|        |   |        |   |
|--------|---|--------|---|
| 7.8.0  | Financial assets, except capital participations, in respect of the                          | 7.9.0  | Liabilities to third parties in   |
| 7.8.6  | rest of the world   | 7.9.6  | except the rest of the world  |
| and    |   | and    |   |
| 7.8.10 |   | 7.9.10 |   |
| 7.8.6  | Corporate equity securities, including capital participations, of non-resident corporations | 7.7.10 | Liabilities to second parties in the rest of the world and net worth            |
| 7.8.10 | Net equity of proprietors in non-resident quasi-corporations                                | 7.9.6  | Corporate equity securities, including capital participations, of non-residents |
|        |   | 7.9.10 | Net equity of non-resident proprietors in quasi-corporate enterprises           |

It will also be advantageous for certain purposes to present supplementary accounts for financial institutions, general government and perhaps non-financial corporate and quasi-corporate enterprises on a consolidated basis. As in the case of the accounts for the nation as a whole the differences between consolidation and combination are in the entries on financial assets and liabilities.

The detail in classification of entries that is proposed in the standard accounts has been kept to the minimum that is considered to be necessary in the case of each institutional sector and the nation as a whole. It therefore varies from

one institutional sector to another and is less detailed in the case of the nation as a whole than in the case of some of the institutional sectors. Countries may consider it desirable to present more detailed classifications than are proposed, for example, in the case of fixed assets in all of the accounts and, in addition, in the case of non-reproducible tangible assets and financial assets and liabilities in the accounts for the nation. They may also find it advantageous to subdivide a number of the entries in respect of financial assets, liabilities to third parties and the liabilities to second parties into those relating to resident sectors and the rest of the world, especially in the case of non-financial corporate and quasi-corporate institutions, financial institutions and general government.

It will be useful to supply memoranda to the appropriate standard accounts on the items listed below:

(a) Long-term bonds. The nominal (face) value of the bonds, as assets and as liabilities, which are to be valued at market values in the accounts proper. If the payments on redemption of the long-term bonds differ from their nominal value, it would be preferable to enter the redemption values.

(b) Corporate equity securities including capital participations. The paid-in value of the securities of a corporation, revalued in terms of the revaluation of its fixed assets, as assets and as liabilities to second parties. These securities are to be valued at market values in the accounts proper.

(c) Leases, concessions and the like. In the balance sheets, the leases of structures or land is to be divided between the leases and the owners. The same procedure is recommended in the case of concessions or leases of timber tracts, subsoil assets or fisheries. In the capital finance accounts the value of purchases (sales) of leases and concessions is to be included in net purchases of non-financial intangible assets. It will therefore be useful to give memoranda on the value of leases or concessions included in the stocks of fixed assets, land, timber tracts, subsoil assets in the case of the holders of the leases or concessions and excluded from these stocks in the case of the owners of the structures, land, timber tracts, etc. The shift of leases or concessions purchased (sold) from net purchases of non-financial intangible assets in the case of the capital finance account to the category of non-reproducible tangible assets involved in the case of the balance-sheet accounts will require reconciliation entries in respect of both these types of assets. These reconciliation items are to be classed as "adjustments due to changes in structure and classification".

(d) Improvements to land, development and extension of plantations, orchards and vineyards and timber tracts, construction in respect of subsoil assets and transfer costs in respect of purchase of non-reproducible tangible assets. Outlays on these items are included in fixed capital formation in the capital finance accounts but are included in the appropriate category of non-reproducible tangible asset in the balance-sheet accounts. It therefore would be useful to show these outlays in memoranda to the relevant capital finance account. Reconciliation entries in respect of fixed assets and the non-reproducible tangible assets in question will also be required. These reconciliation items should be classed as "adjustments due to changes in structure and classification".

## Annex 9.3 Standard and supplementary tables and notes

Table 29. Opening and closing stocks, net accumulation and reconciliation of assets and liabilities for the nation

| Type of asset and liability                            | Opening stock  | Capital transactions during the year <sup>1/</sup> | Revaluations due to price changes <sup>2/</sup> | Net increases not included in capital transactions <sup>3/</sup> | Other | Closing stock |     |
|--|--|--|---|--|-------|---------------|-----|
| Code   | (1)  | (2)  | (3)   | (4)  | (5)   | (6)           | (7) |
| <b>a. Tangible and non-financial intangible assets</b> |  |  |   |  |       |               |     |
| 10.1.0   | Stocks   |  |   |  |       |               |     |
| 10.1.1   | Goods producing industries   |  |   |  |       |               |     |
| 10.1.2   | Wholesale and retail trade   |  |   |  |       |               |     |
| 10.1.3   | Other industries   |  |   |  |       |               |     |
| 10.1.4   | Stocks of government services  |  |   |  |       |               |     |
| 10.2.0   | Fixed assets (net of consumption of fixed capital)   |  |   |  |       |               |     |
| 10.2.1   | Residential buildings  |  |   |  |       |               |     |
| 10.2.2   | Non-residential buildings  |  |   |  |       |               |     |
| 10.2.3   | Other construction works   |  |   |  |       |               |     |
| 10.2.4   | Transport equipment  |  |   |  |       |               |     |
| 10.2.5.1   | Agricultural machinery and equipment   |  |   |  |       |               |     |
| 10.2.5.2   | Other machinery and equipment  |  |   |  |       |               |     |
| 10.2.6   | Breeding stock, draught animals, dairy cattle and the like                                 |  |   |  |       |               |     |
| 11.0.0   | Non-reproducible tangible assets   |  |   |  |       |               |     |
| 11.1.0   | Land, of which   |  |   |  |       |               |     |
| 11.1.1   | Land underlying buildings and works  |  |   |  |       |               |     |
| 11.1.2   | Cultivated land  |  |   |  |       |               |     |
| 11.2   | Timber tracts  |  |   |  |       |               |     |
| 11.3.0   | Subsoil assets   |  |   |  |       |               |     |
| 11.3.1   | Coal, oil and natural gas reserves   |  |   |  |       |               |     |
| 11.3.2   | Metallic mineral reserves  |  |   |  |       |               |     |
| 11.3.3   | Other non-metallic mineral reserves  |  |   |  |       |               |     |
| 11.4   | Fisheries  |  |   |  |       |               |     |
| 11.5   | Historic monuments   |  |   |  |       |               |     |
| 12.0   | Non-financial intangible assets  |  |   |  |       |               |     |
|  | Total tangible and non-financial intangible assets   |  |   |  |       |               |     |
| <b>b. Financial assets</b>                             |  |  |   |  |       |               |     |
| 8.1  | Gold and IMF special drawing rights  |  |   |  |       |               |     |
| 8.2  | Currency and transferable deposits in:   |  |   |  |       |               |     |
|  | i. Resident sectors  |  |   |  |       |               |     |
|  | ii. The rest of the world  |  |   |  |       |               |     |
| 8.3  | Other deposits   |  |   |  |       |               |     |
| 8.4  | Bills and bonds, short-term  |  |   |  |       |               |     |
| 8.5  | Bonds, long-term   |  |   |  |       |               |     |
| 8.6  | Corporate equity securities, including capital participations                              |  |   |  |       |               |     |
| 8.7  | Short-term loans, n.s.c.   |  |   |  |       |               |     |
| 8.8  | Long-term loans, n.s.c.  |  |   |  |       |               |     |
| 8.9  | Net equity of households on reserves of life insurance and pension funds                   |  |   |  |       |               |     |
| 8.10   | Resident proprietors' net equity in non-resident quasi-corporate enterprises <sup>4/</sup> |  |   |  |       |               |     |
| 8.11   | Trade credit and advances  |  |   |  |       |               |     |
| 8.12   | Other accounts receivable  |  |   |  |       |               |     |
| 8.13   | Other financial assets   |  |   |  |       |               |     |
| 8.0  | Total financial assets   |  |   |  |       |               |     |
| <b>c. Total assets</b>                                 |  |  |   |  |       |               |     |
|  | Tangible non-financial intangible and financial assets                                     |  |   |  |       |               |     |
| <b>d. Liabilities and net worth</b>                    |  |  |   |  |       |               |     |
| 9.2  | Currency and transferable deposits of:   |  |   |  |       |               |     |
|  | i. Resident sectors  |  |   |  |       |               |     |
|  | ii. The rest of the world  |  |   |  |       |               |     |
| 9.3  | Other deposits   |  |   |  |       |               |     |
| 9.4  | Bills and bonds, short-term  |  |   |  |       |               |     |
| 9.5  | Bonds, long-term   |  |   |  |       |               |     |
| 9.7  | Short-term loans, n.s.c.   |  |   |  |       |               |     |
| 9.8  | Long-term loans, n.s.c.  |  |   |  |       |               |     |
| 9.9  | Net equity of households on reserves of life insurance and pension funds                   |  |   |  |       |               |     |
| 9.11   | Trade credit and advances  |  |   |  |       |               |     |
| 8.12   | Other accounts payable   |  |   |  |       |               |     |
| 8.13   | Other liabilities  |  |   |  |       |               |     |
| 9.0 except 9.4 and 9.10                                | Total liabilities to third parties   |  |   |  |       |               |     |
| 9.6  | Corporate equity securities, including capital participations                              |  |   |  |       |               |     |
| 9.10   | Non-resident proprietors' net equity in resident quasi-corporate enterprises <sup>4/</sup> |  |   |  |       |               |     |
| 7.10.1   | Net worth  |  |   |  |       |               |     |
| 7.10   | Total liabilities to second parties and net worth  |  |   |  |       |               |     |

<sup>1/</sup> Capital transactions cover relevant entries on the capital finance account, i.e. gross fixed capital formation less consumption of fixed capital, increase in stocks, improvements to land, development and extension of plantations, orchards and vineyards included in cultivated land, development and extension of timber tracts and fisheries, construction in respect of exploitation of subsoil deposits, net purchases of non-financial tangible assets and transactions in financial assets and liabilities.

<sup>2/</sup> Not applicable in the case of non-financial intangible assets.

<sup>3/</sup> Applicable only in the case of breeding stock, dairy cattle, draught animals and the like and in the case of most non-reproducible tangible assets.

<sup>4/</sup> These transactions between resident quasi-corporate enterprises and resident proprietors are eliminated as result of consolidation in these instances.

Table 30. Closing stocks and reconciliation for assets and liabilities of private and public institutions

| Type of asset and liability                                   | Private institutions   |   |  |       |                | Public institutions                             |  |       |     |
|---|--|---|--|-------|----------------|---|--|-------|-----|
|   | Closing stocks   | Reconciliation items                            |  |       | Closing stocks | Reconciliation items                            |  |       |     |
|   |  | Revaluations due to price changes <sup>1/</sup> | Net increases not included in capital transactions <sup>2/</sup> | Other |                | Revaluations due to price changes <sup>1/</sup> | Net increases not included in capital transactions <sup>2/</sup> | Other |     |
| Code  | (1)  | (2)   | (3)  | (4)   | (5)            | (6)   | (7)  | (8)   | (9) |
| <b>a. Tangible assets and non-financial intangible assets</b> |  |   |  |       |                |   |  |       |     |
| 10.1  | Stocks   |   |  |       |                |   |  |       |     |
| 10.2  | Fixed assets (net of accumulated consumption of fixed capital)                             |   |  |       |                |   |  |       |     |
| 11.0  | Non-reproducible tangible assets   |   |  |       |                |   |  |       |     |
| 11.1  | Land   |   |  |       |                |   |  |       |     |
| 11.2  | Timber tracts  |   |  |       |                |   |  |       |     |
| 11.3  | Sub-soil assets  |   |  |       |                |   |  |       |     |
| 11.4  | Fisheries  |   |  |       |                |   |  |       |     |
| 11.5  | Historic monuments   |   |  |       |                |   |  |       |     |
| 12.0  | Non-financial intangible assets  |   |  |       |                |   |  |       |     |
|   | <b>Total</b>   |   |  |       |                |   |  |       |     |
| <b>b. Financial assets</b>                                    |  |   |  |       |                |   |  |       |     |
| 8.1   | Gold and IMF special drawing rights  |   |  |       |                |   |  |       |     |
| 8.2   | Currency and transferable deposits   |   |  |       |                |   |  |       |     |
| 8.3   | Other deposits   |   |  |       |                |   |  |       |     |
| 8.4   | Bills and bonds, short-term  |   |  |       |                |   |  |       |     |
| 8.5   | Bonds, long-term   |   |  |       |                |   |  |       |     |
| 8.6   | Corporate equity securities, including capital participations                              |   |  |       |                |   |  |       |     |
| 8.7   | Short-term loans, n.e.c.   |   |  |       |                |   |  |       |     |
| 8.8   | Long-term loans, n.e.c.  |   |  |       |                |   |  |       |     |
| 8.9   | Net equity of households on reserves of life insurance and pension funds                   |   |  |       |                |   |  |       |     |
| 8.10  | Proprietors' net equity in non-resident quasi-corporate enterprises <sup>3/</sup>          |   |  |       |                |   |  |       |     |
| 8.11  | Trade credit and advances  |   |  |       |                |   |  |       |     |
| 8.12 and 8.13   | Other financial assets   |   |  |       |                |   |  |       |     |
| 8.0   | <b>Total financial assets</b>  |   |  |       |                |   |  |       |     |
| <b>c. Total assets</b>  |  |   |  |       |                |   |  |       |     |
|   | Tangible, non-financial intangible and financial assets                                    |   |  |       |                |   |  |       |     |
| <b>d. Liabilities and net worth</b>                           |  |   |  |       |                |   |  |       |     |
| 9.2   | Currency and transferable deposits   |   |  |       |                |   |  |       |     |
| 9.3   | Other deposits   |   |  |       |                |   |  |       |     |
| 9.4   | Bills and bonds, short-term  |   |  |       |                |   |  |       |     |
| 9.5   | Bonds, long-term   |   |  |       |                |   |  |       |     |
| 9.7   | Short-term loans, n.e.c.   |   |  |       |                |   |  |       |     |
| 9.8   | Long-term loans, n.e.c.  |   |  |       |                |   |  |       |     |
| 9.9   | Net equity of households on reserves of life insurance and pension funds                   |   |  |       |                |   |  |       |     |
| 9.11  | Trade credits and advances   |   |  |       |                |   |  |       |     |
| 9.12 and 9.13   | Other liabilities to third parties   |   |  |       |                |   |  |       |     |
| 9.0 except 9.6 and 9.10                                       | <b>Total liabilities to third parties</b>  |   |  |       |                |   |  |       |     |
| 9.6   | Corporate equity securities, including capital participations                              |   |  |       |                |   |  |       |     |
| 9.10  | Non-resident proprietors' net equity in resident quasi-corporate enterprises <sup>3/</sup> |   |  |       |                |   |  |       |     |
| 7.10.1  | Net worth  |   |  |       |                |   |  |       |     |
| 7.10  | <b>Total liabilities to second parties and net worth</b>                                   |   |  |       |                |   |  |       |     |

1/ Not applicable in the case of non-financial intangible assets.

2/ Applicable only in the case of breeding stock, dairy cattle, draught animals and the like and in the case of most non-reproducible tangible assets.

3/ These transactions between resident quasi-corporate enterprises and resident proprietors are eliminated as result of consolidation in these instances.

Table 31. Closing stocks and reconciliation for assets and liabilities of non-financial corporate and quasi-corporate enterprises, by kind of economic activity

| Types of asset and liability                                  |   | Categories of kind of economic activity according to ISIB major division except manufacturing which case, according to ISIC division. In each of the following columns: |   |  |       |
|---|---|---|---|--|-------|
|   |   | Closing stocks  | Reconciliation                                  |  |       |
| Code  |   |   | Revaluations due to price changes <sup>1/</sup> | Net increases not included in capital transactions <sup>2/</sup> | Other |
| <b>a. Tangible assets and non-financial intangible assets</b> |   |   |   |  |       |
| 10.1  | Stocks  |   |   |  |       |
| 10.2  | Fixed assets (net of accumulated consumption of fixed capital)                    |   |   |  |       |
| 11.0  | Non-reproducible tangible assets, of which:                                       |   |   |  |       |
| 11.1  | Land, of which  |   |   |  |       |
| 11.1.1  | Land underlying buildings and works   |   |   |  |       |
| 11.1.2  | Cultivated land   |   |   |  |       |
| 11.2  | Timber tracts   |   |   |  |       |
| 11.3  | Subsoil deposits  |   |   |  |       |
| 11.4  | Fisheries   |   |   |  |       |
| 12.0  | Non-financial intangible assets   |   |   |  |       |
|   | Total   |   |   |  |       |
| <b>b. Financial assets</b>                                    |   |   |   |  |       |
| 8.1   | Gold  |   |   |  |       |
| 8.2   | Currency and transferable deposits  |   |   |  |       |
| 8.3   | Other deposits  |   |   |  |       |
| 8.4   | Bills and bonds, short-term   |   |   |  |       |
| 8.5   | Bonds, long-term  |   |   |  |       |
| 8.6   | Corporate equity securities, including capital participations                     |   |   |  |       |
| 8.7 and 8.8   | Loans, n.e.c.   |   |   |  |       |
| 8.10  | Proprietors' net equity in non-resident quasi-corporate enterprises <sup>3/</sup> |   |   |  |       |
| 8.11  | Trade credit and advances   |   |   |  |       |
| 8.12 and 8.13   | Other financial assets  |   |   |  |       |
| 8.0   | Total financial assets  |   |   |  |       |
| <b>c. Total assets</b>  |   |   |   |  |       |
|   | Tangible non-financial intangible and financial assets                            |   |   |  |       |
| <b>d. Liabilities and net worth</b>                           |   |   |   |  |       |
| 9.4   | Bills and bonds, short-term   |   |   |  |       |
| 9.5   | Bonds, long-term  |   |   |  |       |
| 9.7   | Short-term loans, n.e.c.  |   |   |  |       |
| 9.8   | Long-term loans, n.e.c.   |   |   |  |       |
| 9.11  | Trade credit and advances   |   |   |  |       |
| 9.2 and 9.13  | Other liabilities   |   |   |  |       |
|   | Total liabilities to third parties  |   |   |  |       |
| 9.6   | Corporate equity securities, including capital participations                     |   |   |  |       |
| 9.10  | Proprietors' net equity in quasi-corporate enterprises                            |   |   |  |       |
| 7.10.1  | Net worth   |   |   |  |       |
| 7.10  | Liabilities to second parties and net worth                                       |   |   |  |       |

<sup>1/</sup> Not applicable in the case of non-financial intangible.

<sup>2/</sup> Applicable only in the case of breeding stock, dairy cattle, draught animals and the like and in the case of most non-reproducible tangible assets.

<sup>3/</sup> Proprietors' net equity in non-resident quasi-corporate enterprises only as resident quasi-corporate enterprises should be part of the same statistical unit as the parent corporation.

Table 32. Closing stocks and reconciliation for assets and liabilities of the sub-sectors of general government

| Code  | Type of asset and liability   | Central government |   |  |       | State and local government |   |       | Social security funds |   |       |
|---|---|--------------------|---|--|-------|----------------------------|---|-------|-----------------------|---|-------|
|   |   | Closing stocks     | Reconciliation                                  |  |       | Closing stocks             | Reconciliation                                  |       | Closing stocks        | Reconciliation                                  |       |
|   |   |                    | Revaluations due to price changes <sup>1/</sup> | Net increases not included in capital transactions <sup>2/</sup> | Other |                            | Revaluations due to price changes <sup>1/</sup> | Other |                       | Revaluations due to price changes <sup>1/</sup> | Other |
| (1)   | (2)   | (3)                | (4)   | (5)  | (6)   | (7)                        | (8)   | (9)   | (10)                  | (11)  |       |
| <b>a. Tangible assets and non-financial intangible assets</b> |   |                    |   |  |       |                            |   |       |                       |   |       |
| 10.2  | Fixed assets (net of accumulated consumption of fixed capital)              |                    |   |  |       |                            |   |       |                       |   |       |
| 11.0  | Non-reproducible tangible assets  |                    |   |  |       |                            |   |       |                       |   |       |
| 11.1  | Land  |                    |   |  |       |                            |   |       |                       |   |       |
| 11.2  | Timber tracts <sup>3/</sup>   |                    |   |  |       |                            |   |       |                       |   |       |
| 11.3  | Subsoil deposits <sup>3/</sup>  |                    |   |  |       |                            |   |       |                       |   |       |
| 11.4  | Fisheries <sup>4/</sup>   |                    |   |  |       |                            |   |       |                       |   |       |
| 11.5  | Historical monuments <sup>4/</sup>  |                    |   |  |       |                            |   |       |                       |   |       |
| 12.0  | Non-financial intangible assets   |                    |   |  |       |                            |   |       |                       |   |       |
|   | Total   |                    |   |  |       |                            |   |       |                       |   |       |
| <b>b. Financial assets</b>                                    |   |                    |   |  |       |                            |   |       |                       |   |       |
| 8.1   | Gold and IMF special drawing rights <sup>3/</sup>                           |                    |   |  |       |                            |   |       |                       |   |       |
| 8.2   | Currency and transferable deposits  |                    |   |  |       |                            |   |       |                       |   |       |
| 8.3   | Other deposits  |                    |   |  |       |                            |   |       |                       |   |       |
| 8.4   | Bills and bonds, short-term   |                    |   |  |       |                            |   |       |                       |   |       |
| 8.5   | Bonds, long-term  |                    |   |  |       |                            |   |       |                       |   |       |
| 8.6   | Corporate equity securities, including capital participations <sup>4/</sup> |                    |   |  |       |                            |   |       |                       |   |       |
| 8.7 and 8.8   | Loans, n.e.c.   |                    |   |  |       |                            |   |       |                       |   |       |
| 8.10  | Proprietors' net equity in quasi-corporate government enterprises           |                    |   |  |       |                            |   |       |                       |   |       |
| 8.11, 12 and 13   | Other financial assets  |                    |   |  |       |                            |   |       |                       |   |       |
| 8.0   | Total   |                    |   |  |       |                            |   |       |                       |   |       |
| <b>c. Total assets</b>  |   |                    |   |  |       |                            |   |       |                       |   |       |
|   | Tangible, non-financial intangible and financial assets                     |                    |   |  |       |                            |   |       |                       |   |       |
| <b>d. Liabilities and net worth</b>                           |   |                    |   |  |       |                            |   |       |                       |   |       |
| 9.2   | Currency issued by Treasury and transferable deposits <sup>3/</sup>         |                    |   |  |       |                            |   |       |                       |   |       |
| 9.3   | Other deposits <sup>4/</sup>  |                    |   |  |       |                            |   |       |                       |   |       |
| 9.4   | Bills and bonds, short-term <sup>4/</sup>                                   |                    |   |  |       |                            |   |       |                       |   |       |
| 9.5   | Bonds, long-term  |                    |   |  |       |                            |   |       |                       |   |       |
| 9.7   | Short-term loans, n.e.c.  |                    |   |  |       |                            |   |       |                       |   |       |
| 9.8   | Long-term loans, n.e.c.   |                    |   |  |       |                            |   |       |                       |   |       |
| 9.11, 12 and 13   | Other liabilities   |                    |   |  |       |                            |   |       |                       |   |       |
| 9.0   | Total liabilities   |                    |   |  |       |                            |   |       |                       |   |       |
| 7.10.1  | Net worth   |                    |   |  |       |                            |   |       |                       |   |       |

1/ Not applicable in the case of non-financial intangible assets.

2/ Applicable only in the case of breeding stock, dairy cattle, draught animals and the like and in the case of most non-reproducible tangible assets.

3/ These entries are likely to be relevant for the central government only.

4/ These entries are unlikely to be relevant for social security funds.

Table 33. Closing stocks and revaluation for assets and liabilities of the sub-sectors of households, including private non-financial unincorporated enterprises

| Types of asset and liability                                  | Households including proprietors' of agricultural unincorporated enterprises |   |  |       | Households including proprietors' of non-agricultural unincorporated enterprises except owners of owner-occupied dwellings only |   |  |       | Other households |   |       |      |
|---|--|---|--|-------|---|---|--|-------|------------------|---|-------|------|
|   | Closing stocks   | Reconciliation                                  |  |       | Closing stocks  | Reconciliation                                  |  |       | Closing stocks   | Reconciliation                                  |       |      |
|   |  | Revaluations due to price changes <sup>1/</sup> | Net increases not included in capital transactions <sup>2/</sup> | Other |   | Revaluations due to price changes <sup>1/</sup> | Net increases not included in capital transactions <sup>2/</sup> | Other |                  | Revaluations due to price changes <sup>1/</sup> | Other |      |
| Code  | (1)  | (2)   | (3)  | (4)   | (5)   | (6)   | (7)  | (8)   | (9)              | (10)  | (11)  | (12) |
| <b>A. Tangible assets and non-financial intangible assets</b> |  |   |  |       |   |   |  |       |                  |   |       |      |
| 10.1  | Stocks <sup>3/</sup>   |   |  |       |   |   |  |       |                  |   |       |      |
| 10.2  | Fixed assets (net of accumulated consumption of fixed capital)               |   |  |       |   |   |  |       |                  |   |       |      |
| 11.0  | Non-reproducible tangible assets, of which:                                  |   |  |       |   |   |  |       |                  |   |       |      |
| 11.1  | Land, of which:  |   |  |       |   |   |  |       |                  |   |       |      |
| 11.1.1  | Land underlying buildings and works  |   |  |       |   |   |  |       |                  |   |       |      |
| 11.1.2  | Cultivated land  |   |  |       |   |   |  |       |                  |   |       |      |
| 11.2  | Timber tracts  |   |  |       |   |   |  |       |                  |   |       |      |
| 11.3  | Subsoil assets   |   |  |       |   |   |  |       |                  |   |       |      |
| 11.4  | Fisheries <sup>3/</sup>  |   |  |       |   |   |  |       |                  |   |       |      |
| 12.0  | Non-financial tangible assets  |   |  |       |   |   |  |       |                  |   |       |      |
|   | Total  |   |  |       |   |   |  |       |                  |   |       |      |
| <b>B. Financial assets</b>                                    |  |   |  |       |   |   |  |       |                  |   |       |      |
| 8.1   | Gold   |   |  |       |   |   |  |       |                  |   |       |      |
| 8.2   | Currency and transferable deposits   |   |  |       |   |   |  |       |                  |   |       |      |
| 8.3   | Other deposits   |   |  |       |   |   |  |       |                  |   |       |      |
| 8.4   | Bills and bonds, short-term  |   |  |       |   |   |  |       |                  |   |       |      |
| 8.5   | Bonds, long-term   |   |  |       |   |   |  |       |                  |   |       |      |
| 8.6   | Corporate equity securities, including capital participations                |   |  |       |   |   |  |       |                  |   |       |      |
| 8.7 and 8.8   | Loans, n.e.c.  |   |  |       |   |   |  |       |                  |   |       |      |
| 8.9   | Net equity of households on reserves of life insurance and pension funds     |   |  |       |   |   |  |       |                  |   |       |      |
| 8.10  | Proprietors' net equity in quasi-corporate enterprises                       |   |  |       |   |   |  |       |                  |   |       |      |
| 8.11, 12 and 13   | Other financial assets   |   |  |       |   |   |  |       |                  |   |       |      |
| 8.0   | Total  |   |  |       |   |   |  |       |                  |   |       |      |
| <b>C. Total assets</b>  |  |   |  |       |   |   |  |       |                  |   |       |      |
| Tangible, non-financial intangible and financial assets       |  |   |  |       |   |   |  |       |                  |   |       |      |
| <b>D. Liabilities and net worth</b>                           |  |   |  |       |   |   |  |       |                  |   |       |      |
| 9.7   | Short-term loans, n.e.c.   |   |  |       |   |   |  |       |                  |   |       |      |
| 9.8   | Long-term loans, n.e.c.  |   |  |       |   |   |  |       |                  |   |       |      |
| 9.11  | Trade credit and advances  |   |  |       |   |   |  |       |                  |   |       |      |
| 9.12 and 13   | Other liabilities  |   |  |       |   |   |  |       |                  |   |       |      |
| 9.0   | Total liabilities  |   |  |       |   |   |  |       |                  |   |       |      |
| 7.10.1  | Net worth  |   |  |       |   |   |  |       |                  |   |       |      |

<sup>1/</sup> Not applicable in the case of non-financial intangible assets.

<sup>2/</sup> Applicable only in the case of breeding stock, dairy cattle, draught animals and the like and in the case of most non-reproducible tangible assets.

<sup>3/</sup> Assets in the form of stocks are inapplicable in the case of other households; holdings of fisheries are likely to occur in the case of households including proprietors of agricultural unincorporated enterprises only.





Table 34. Stocks of financial assets analyzed 7/ by sub-sectors of which they are assets and liabilities (continued)

| The part of the world | Financial assets of                |   |                                    |                            |  |   |                                   |                 |       |   | Liabilities of<br>Column 1 through<br>12 in respect of<br>financial<br>assets |   |
|-----------------------|------------------------------------|---|------------------------------------|----------------------------|--|---|-----------------------------------|-----------------|-------|---|---|---|
|                       | General government                 |   |                                    | Financial institutions     |  |   | Non-financial                     |                 | Total | Type of claim and debtor and creditor <sup>1/</sup> |   |   |
|                       | Private non-profit<br>institutions | Social security<br>local gov-<br>ernment<br>funds | State and<br>local gov-<br>ernment | Central<br>gov-<br>ernment | Other<br>financial<br>institutions             | Insurance<br>companies<br>and<br>pension<br>funds | Other<br>monetary<br>institutions | Central<br>bank |       |   |   | Non-financial<br>corporate<br>and<br>enterprise |
| (11)                  | (9)                                | (8)   | (7)                                | (6)                        | (5)  | (4)   | (3)                               | (2)             | (1)   | Item  |   |   |
|                       |                                    |   |                                    |                            | b. Foreign financial assets and liabilities 2/ |   |                                   |                 |       |   |   |   |
|                       |                                    |   |                                    |                            |  |   |                                   |                 |       |   | 8.1<br>8.2-<br>8.4  | 9.1<br>9.2-<br>9.4                              |
|                       |                                    |   |                                    |                            |  |   |                                   |                 |       |   |   | 9.5-<br>9.13                                    |

1/ The sub-division of the categories of claims according to sector of debtor relates to transactions in respect of all types of financial assets. The sub-division of the categories of claims according to sector of creditor relates to transactions in currency and transferable deposits, other deposits and short-term and long-term loans n.s.o. only.

2/ The definition of international reserves and offsets to these reserves are those of the International Monetary Fund and the allocation internationally of these data is the responsibility of the Fund.

Table 35. Balance sheet of foreign financial assets and liabilities

| Financial assets   | Item  | Type of claim  | Item | Liabilities |
|--|---|--|------|-------------|
| a. All foreign financial assets or liabilities <sup>1/</sup> |   |  |      |             |
|  | 8.1   | Gold and IMF special drawing rights                                      |      |             |
|  | 8.2   | Currency and transferable deposits                                       | 9.2  |             |
|  | 8.3   | Other deposits   | 9.3  |             |
|  | 8.4   | Bills and bonds, short-term  | 9.4  |             |
|  | 8.5   | Bonds, long-term   | 9.5  |             |
|  | 8.6   | Corporate equity securities, including capital participations            | 9.6  |             |
|  |   | i. In subsidiaries   |      |             |
|  |   | ii. Other  |      |             |
|  | 8.7   | Short-term loans, n.e.c.   | 9.7  |             |
|  | 8.8   | Long-term loans, n.e.c.  | 9.8  |             |
|  | 8.9   | Net equity of households or reserves of life insurance and pension funds | 9.9  |             |
|  | 8.10  | Proprietors' net equity in quasi-corporate enterprises                   | 9.10 |             |
|  | 8.11  | Trade credit and advances  | 9.11 |             |
|  | 8.12  | Other claims   | 9.12 |             |
|  | 8.13  |  | 9.13 |             |
|  | Total foreign financial assets or liabilities |  |      |             |
| b. International reserves or offsets <sup>2/</sup>           |   |  |      |             |
|  | 8.1   | Gold and IMF special drawing rights                                      |      |             |
|  | 8.2-  | Currency, deposits and short-term bills and                              | 9.2- |             |
|  | 8.4   | bonds  | 9.4  |             |
|  | 8.5-  | Other financial assets or liabilities                                    | 9.5- |             |
|  | 8.13  |  | 9.13 |             |
|  |   | a. Short-term  |      |             |
|  |   | b. Long-term   |      |             |
|  | Total   |  |      |             |

<sup>1/</sup> The amount of foreign currency premium received should be shown in a footnote to this table.

<sup>2/</sup> The definitions of international reserves and offsets to these reserves are those of the International Monetary Fund and the collection internationally of these data is the responsibility of the Fund.

Supplementary table. Opening and closing stock, final consumption expenditure and reconciliation for major consumer and military durables

| Code  | Kind of goods  | Opening stocks<br>(2) | Final consumption expenditure<br>(3) | Reconciliation                       |  |              | Closing stocks<br>(7) |
|-------|--|-----------------------|--------------------------------------|--------------------------------------|--|--------------|-----------------------|
|       |  |                       |                                      | Depreciation and obsolescence<br>(4) | Revaluations due to price changes<br>(5) | Other<br>(6) |                       |
|       |  | (2)                   | (3)                                  | (4)                                  | (5)                                      | (6)          | (7)                   |
|       |  | a. Consumer durables  |                                      |                                      |  |              |                       |
| 4.1.1 | Furniture, fixtures, carpets and other floor coverings   |                       |                                      |                                      |  |              |                       |
| 4.3.1 | Heating and cooking appliances, refrigerators, washing machines and similar major appliances, including fittings |                       |                                      |                                      |  |              |                       |
| 6.1   | Motor cars, trailers and caravans; motorcycles and bicycles  |                       |                                      |                                      |  |              |                       |
| 7.1.1 | Wireless and television sets and gramophones   |                       |                                      |                                      |  |              |                       |
| 7.1.2 | Photographic equipment, musical instruments, boats, and other major recreational durables                        |                       |                                      |                                      |  |              |                       |
|       |  | b. Military durables  |                                      |                                      |  |              |                       |
|       | Military durables  |                       |                                      |                                      |  |              |                       |

Notes to the standard tables

The detail in classification of entries that is proposed in the standard tables has been kept to the minimum that is considered to be necessary in the case of each institutional sector and the nation as a whole. It therefore varies from one institutional sector to another. Countries may consider it desirable to present more detailed classifications than are proposed in respect of such items as fixed assets and financial assets and liabilities. In the case of fixed assets, they find it advantageous to present the full classification proposed in table 6.1 in the standard tables on corporate and quasi-corporate non-financial enterprises and on households. In the case of financial assets and liabilities, they may consider it desirable and feasible to sub-divide selected claims into resident and non-resident debtors or creditors, respectively, in the standard tables for the nation as a whole and for each of the institutional sectors.

As in the case of the standard accounts, it will be useful to supply memoranda to the appropriate standard tables on the items listed below:

- i. Long-term bonds. The nominal (face) value of the bonds, as assets and as liabilities, which are to be valued at market values in the accounts proper. If the payments on redemption of the long-term bonds differ from their nominal value, it would be preferable to enter the redemption values.
- ii. Corporate equity securities including capital participations. The paid-in value of the securities of a corporation, revalued in terms of the revaluation of its fixed assets, as assets and as liabilities to second parties. These securities are to be valued at market values in the accounts proper.
- iii. Leases, concessions and the like. In the balance sheets, the leases of structures or land is to be divided between the leases and the owners. The same procedure is recommended in the case of concessions or leases of timber tracts, sub-soil assets or fisheries. In the capital finance accounts the value of purchases (sales) of leases and concessions is to be included in net purchases of non-financial intangible assets. It will therefore be useful to give memoranda on the value of leases or concessions included in the stocks of fixed assets, land, timber tracts, sub-soil assets in the case of the holders of the leases or concessions and excluded from these stocks in the case of the owners of the structures, land, timber tracts, etc. The shift of leases or concessions purchased (sold) from net purchases of non-financial intangible assets in the case of the capital finance account to the category of non-reproducible tangible assets involved in the case of the balance-sheet accounts will require reconciliation entries in respect of both these types of assets. These reconciliation items are to be classed as "adjustments due to changes in structure and classification".

- iv. Improvements to land, development and extension of plantations, orchards and vineyards and timber tracts, construction in respect of sub-soil assets and transfer costs in respect of purchase of non-reproducible tangible assets. Outlays on these items are included in fixed capital formation in the capital finance accounts but are included in the appropriate category of non-reproducible tangible assets in the balance-sheet accounts. It therefore would be useful to show these outlays in memoranda to the relevant capital finance account. Reconciliation entries in respect of fixed assets and the non-reproducible tangible assets in question will also be required. These reconciliation items should be classed as "adjustments due to changes in structure and classification".

## X. SOURCES, METHODS AND PRIORITIES OF BALANCE-SHEET DATA

10.1. This section concerns the sources and methods of gathering and compiling data on balance sheets and their reconciliation and the order in which these data might be developed in the case of various institutional sectors. The discussion of these topics is, of necessity, rather general in character. This is so because of the very limited national experience in gathering and compiling balance-sheet data and the major differences between countries that exist in the case of the sources and kind of available information. It is hoped that, none the less, the discussion of the difficulties that may be encountered in compiling and reconciling balance sheets and the sources and methods of carrying out this work, will of interest and assistance to countries. The suggestions concerning the broad orders of priority in which balance-sheet statistics might be evolved is of course also intended to serve the same purpose.

### A. The approaches to compiling balance-sheet and reconciliation data

10.2. Two main approaches have been used in compiling balance sheets - direct compilation and the indirect approach.

10.3. In the case of the direct approach, data on balance sheets and on their reconciliation are primarily based on data gathered on the assets and liabilities of enterprises, government bodies and perhaps households as of specific dates. Supplementary series of data on items such as prices, discoveries of subsoil deposits, natural growth of timber tracts, changes in the structure of statistical units, will usually be needed in order to adjust and reconcile these data. Balance sheets may be available from the administrative activities of government bodies and of stock exchanges, from the public issue of these statements and/or from special statistical inquiries. Adequate balance-sheet statistics may not be available frequently, completely or rapidly enough for purposes of compiling annual accounts and supporting tables. In that case, indirect methods have been used in compiling the balance-sheet accounts and tables.

10.4. The indirect methods of compiling data on balance-sheet and reconciliation accounts usually consist of extrapolating, period-by-period, estimates for a benchmark date that are made by means of the direct approach outlined above. The benchmark date is often the beginning of a calendar year and the periods are generally calendar years or quarters. The indirect methods may of course also be used to interpolate, period-by-period, between benchmark dates. The data for purposes of extrapolation or interpolation are figures on such matters as the transactions carried out and the changes in prices from the national accounts and similar sources, the discovery of new subsoil deposits, the natural growth in timber tracts, and the structural changes in statistical units, during the periods in question. Many of these series of data are likely to be available from periodic statistical inquiries primarily needed for purposes other than the compilation of balance-sheet and reconciliation accounts and tables, for example for estimating the transactions of the national accounts; some of these series of data will probably involve the collection of special information. As in the case of the direct methods, the series of data for use in the indirect approach may be gathered from such sources as records resulting from the administration of government laws and regulations, stock exchanges and other financial institutions, the financial statements issued by enterprises and/or special statistical returns.

## B. Direct approach

### 1. Balance sheets from administrative and related sources

10.5. Enterprises may be required to file balance sheets annually or infrequently in connexion with income tax returns, company and similar acts, and/or other forms of government regulation or registration. Examples of the latter are the regulation of businesses, such as banks, insurance companies and public utilities, the periodic reporting of companies, the securities of which are traded on public exchanges or the size of which exceeds a given level and the registration of new and secondary public offerings of securities. In the case of a number of countries, the balance sheets of large and publicly owned, if not all, incorporated enterprises, but often not those of unincorporate units, are available from one or more of those administrative sources. In the case of some countries, all enterprises, irrespective of legal form or size, are required to file balance sheets in the administration of income tax or government registration schemes. Private non-profit institutions serving households may also be required to furnish balance sheets in connexion with their exemption from income taxes, regulation by government or accountability to their board of directors and major contributors. While government bodies often do not prepare balance sheets as part of their financial accounting, it should be feasible to compile these data from government property and debt records and accounts. In most instances, periodic balance sheets or accounting records from which these statements might be compiled, are not available in the case of households and many of their small and medium-sized unregulated unincorporated enterprises. However, statements filed in connexion with probate taxes on estates may furnish an irregular source of balance-sheet data in the case of households.

10.6. So that the balance sheets available from government and private administrative activities may be effective and reliable sources of data for compiling balance-sheets accounts and tables, the required returns should be standardized, taking due account of statistical needs, and properly policed and checked. All too often because these prerequisites are not met, the balance sheets filed in connexion with government or private administrative activities are then of little value in compiling the data under discussion. The dates to which the balance sheets relate may differ; the units to which they relate may not conform to those wanted for statistical purposes. Furthermore, the categories of assets and liabilities used may vary from one respondent to another and be too broad in scope; the methods of valuing certain assets and liabilities, depreciation and bad debts and of defining reserves, goodwill and the basis for recording certain items, may also differ from one respondent to another. Lack of policing and checking of returns will probably result in too much non-response and in the collection of incomplete and erroneous returns, in particular in the case of the smaller enterprises who must submit balance sheets.

### 2. Sources and methods of supplementing balance sheets

#### (a) Requirements

10.7. Even with the standardization, follow-up, editing, etc. of the balance sheets to be filed in connexion with the administration of laws, regulations or registrations, it is often not feasible to eliminate some of the deficiencies mentioned above. It will, on the whole, be impracticable to require that enterprises file balance sheets that differ significantly from the practices which are acceptable and prevalent in business accounting and which they find useful in managing their



business. Thus, it may not be feasible to require enterprises to compile balance sheets as of given dates or to value tangible assets and long-term bonds and shares at market prices or the equivalent. Problems also arise in making statistical use of consolidated balance sheets compiled for business accounting and/or government administrations in the case of families of parent and subsidiary enterprises, some of which may be abroad or at home but which fall into differing institutional sectors.

(b) Adjustments of statistical units

10.8. Where the balance sheets that are available from administrative sources cover families of legal units which need to be subdivided into new units for statistical purposes, it will generally be necessary to obtain special supplementary balance sheets for the subsidiaries which are to be separated from the family - those abroad or at home which are to be included in a different institutional sector than the parent unit. The special balance sheets should divide the equity securities and other liabilities issued by the subsidiaries in question into those held by parent and other subsidiary units of the family and those held by others. Any financial assets which are liabilities of the parent and other subsidiary units of the family should also be segregated. This information is required to de-consolidate and divide up the balance sheets of the families into the desired statistical units and to value the parent's holdings of equity securities of the subsidiaries in question in terms of the subsidiaries' net worth.

(c) Adjustment of dates

10.9. In principle, in order to compile balance-sheet accounts and tables as of a common date, special balance sheets are also needed in the case of enterprises whose balance-sheets dates are different. If the number of such enterprises is great, the special balance sheets might be gathered from a stratified sample of the units in question, with probabilities proportional to the magnitude of their assets. The burden and costs of compiling data for a common date might be reduced by gathering the special balance sheets from the sample under discussion at infrequent intervals only and using the ratios of various assets and liabilities in the off-date balance sheets to those in the latest corresponding special balance sheets in order to adjust the items of off-date balance sheets for later dates. It may even be sufficient to gather the special data and to compute the ratios in the case of holdings of selected assets and liabilities which are expected to vary substantially during the course of a year.

(d) Needed adjustments in valuations

10.10. Problems of adjusting or replacing the values entered in the balance sheet of enterprises and the accounts and records of government bodies arise in the case of such items as stocks, fixed assets, non-reproducible tangible assets, long-term bonds and equity securities. Stocks may, for example, be valued in some balance sheets on a first-in, first-out basis and in other balance sheets on a last-in, first-out market-price basis. Valuation of stocks in terms of last-in, first-out market prices, but not by other approaches, is suitable for use in balance-sheet accounts. Fixed assets, land and subsoil deposits are often valued at costs of acquisition, reduced by depreciation, in the case of fixed assets and reduced by depletion in the case of subsoil deposits. Timber tracts are valued in a number of differing ways in business accounting; long-term bonds and equity securities are often valued at cost of acquisition as asset and at nominal (face) value as liabilities. Equity securities as liabilities are entered at paid-in values in a number of instances.

(e) Stocks

10.11. To compile suitable figures of stocks for the balance-sheet accounts, it will probably be necessary to gather supplementary information on the methods of valuation used in the balance sheets of enterprises and to make estimates of the market value of the stocks at the balance-sheet date when the last-in, first-out market-price basis is not used. These estimates might be based on the data compiled on the physical levels of the stocks at the beginning and end of a period, that is the opening and closing balance-sheet dates, to measure the physical change in stocks during the period for purposes of the capital finance accounts. Current market prices at the beginning and at the ending balance-sheet dates, should be used in valuing the physical levels of the stocks at these respective dates.

(f) Fixed assets

10.12. For purposes of suitable benchmark estimates of fixed assets and of depreciation for the balance-sheet accounts, a special census or sample survey (inventory) of the assets might be undertaken or the estimates might be built up from data on gross fixed capital formation and the expected life-times of use of fixed assets through the perpetual inventory approach. The perpetual inventory approach is based on data needed for the transaction accounts of the national accounts, is much less burdensome than a census or sample inventory of fixed assets and furnishes a means of preparing practical annual estimates of the stocks of fixed assets. It is therefore much more commonly used in practice than are infrequent census or sample inventories of the stock of fixed assets in making benchmark estimates of these stocks. On the other hand, a benchmark inventory of stocks of fixed assets furnishes a sound foundation which may be maintained through the perpetual inventory method, without the long delay of building it up through the perpetual inventory method. The perpetual inventory method is described in paragraphs 7.10 and 7.11 above and illustrated in table 10.2 below. Benchmark census or sample inventories of fixed assets are briefly described here.

10.13. These inquiries usually consist of an inventory of the age, cost of acquisition and condition of the various kinds of fixed assets in the case of a multi-stage stratified sample of enterprises and their establishment and of government units, coupled with as detailed indexes of prices as possible, going back to the earliest time of acquisition of the fixed assets. The series on the age, cost of acquisition and price indexes furnish the means of estimating the replacement cost of the fixed assets of the sample units and the data on age and condition of the fixed assets, together with the estimates of replacement costs, may be used to estimate their accumulated straight-line depreciation. The ratios of these estimates for the sampled units to their balance-sheet entries on the gross value and accumulated depreciation of fixed assets, when applied to the balance-sheet entries for all enterprises or government units, would yield the desired figures for the balance-sheet accounts. Enterprises and government units should be stratified according to size and broad kinds of economic activities in order to select the sample for the inquiry and to make the ratio estimates.

10.14. Because the inquiry outlined above can be costly and burdensome, data gathered on the fire insurance values of fixed assets have been used instead in order to make benchmark estimates of the replacement cost of stocks of fixed assets. However, this approach may not be entirely satisfactory. Large organizations, for example, public enterprises or government bodies, often do not carry fire insurance. Furthermore, some fire insurance policies may yield figures of gross value at replacement cost for only all the fixed assets of insured units while other policies may furnish information on gross and written-down values at replacement cost. In the former case, information will not be available for estimating accumulated depreciation.

(g) Non-reproducible tangible assets

10.15. Estimates of the market value of land might be derived by gathering figures of assessed values and adjusting them to market values or by inquiring into the costs and time of acquisition of, and improvements to, various kinds of land, coupled with price index numbers of their market prices. In order to estimate the balance-sheet values of subsoil assets and timber tracts, it will probably be necessary to gather information for at least a sample of them on their size, character, expected years of exploitation and net return during the year preceding the balance-sheet date in order to adjust the business accounting values to capitalized values in terms of the current market situation. The government mining and forestry authorities, respectively, may be of assistance in making these estimates. An alternative that may be available in the case of some countries is to adjust figures gathered on assessed values for property taxes to market values.

(h) Long-term bonds and equity securities

10.16. In order to estimate the market values of the assets of enterprises and other institutional units in long-term bonds and equity securities, it will probably be necessary to make an inventory of these holdings in the case of at least a sample of the institutions. The inventory might consist of abstracting figures from the registers discussed below on the quantities of various long-term bonds and equity securities held by various kinds of institutions or of gathering data on the quantity, market price and cost of acquisition of these financial assets from a stratified sample of enterprises. The latter series of data may be used to adjust the business accounting values of assets in long-term bonds and equity securities to market values; the former figures, coupled with market prices, may be used for that purpose or to compile the desired data on all institutional units directly.

3. Registers from administrative sources

10.17. Registers in respect of creditors or debtors which are valuable in compiling benchmark and more frequent balance-sheet data are often maintained for purposes of administrative activities in the case of such financial claims as bank and other deposits, bonds, equity securities, loans, and accounts receivable and payable. Banks and similar financial institutions have useful registers on bank and other deposits, bonds and loans; corporations, government bodies and/or registrar agencies maintain valuable registers on outstanding bonds and equity securities; enterprises could be the source of these records on accounts receivable and payable. The usefulness of registers of government authorities on the assessed value of the land and certain other non-reproducible tangible assets for purposes of valuing these assets of institutional units has already been mentioned above. The registers can furnish the basic data on amounts or quantities for use in estimating the appropriate value of the assets and liabilities under discussion in the case of each institutional sector and sub-sector, including households and the rest of the world. The statistical authority would of course need to classify the units listed in the registers according to institutional sectors and sub-sectors. An important drawback of registers is that in the case of claims, such as equity securities, bonds and even deposits, registration is often permitted in the name of nominees or trustees. In these circumstances it will of course be necessary to gather information from units who are thought to be important nominees or trustees in order to ascertain the identity of, and to classify, the owners. If the use of registers is costly and burdensome, two-stage, stratified sampling - first, registers; second, entries in the sample registers - might be employed. The use of electronic computer facilities would also facilitate the work.

#### 4. Reconciliation of successive balance-sheet estimates from administrative sources

##### (a) Requirements for data

10.18. When balance sheets that are available from administrative activities are the primary source of estimates of the desired accounts and tables for successive dates, it is, in general, necessary to resort to other sources of information for purposes of reconciling the two sets of estimates in the case of a number of items. This is so because the differences between the balance-sheet estimates for successive dates may be due to multiple circumstances - for example transactions, changes in market prices, natural growth less depletions and/or changes in the structure of some statistical units in the case of timber tracts or plantations, orchards and vineyards; transactions, changes in market price and/or structure of some statistical units in the case of equity securities. And, the balance sheets for successive dates that are available from administrative sources will furnish little, if any, useful information for purposes of estimating the share of each of these circumstances in their differences. In fact, even if differences are due solely to transactions, they may not furnish a correct measure of the transactions because the value of dispositions, as well as acquisitions, will usually be entered in business accounts at their cost at time of acquisition.

10.19. However, if estimates for successive dates are made from registers in the case of selected financial claims or land or through means discussed above in the case of stocks, fixed assets and non-reproducible tangible assets, the basis will, in many instances, also be available for estimating the share of transactions, changes in prices, and to a very limited extent, adjustments for unforeseen events and structural changes in statistical units. There are also certain kinds of financial claims, for example cash, bank and other deposits, loans, accounts receivable and payable, for which the differences between successive balance-sheet dates are mainly due to transaction during the period.

##### (b) Sources and methods of estimates

10.20. If the capital finance and balance-sheet accounts are as integrated as is proposed in this paper, the estimates of capital transactions during the period between successive balance-sheets dates made in national accounting should furnish data on this element of the differences between the balance-sheet estimates. Suitable price index numbers, whether or not needed in adjusting balance-sheet data to market prices, will furnish the basis for measuring the share of price changes in the balance-sheet differences. In general, in order to estimate the other relevant reconciliation items if practically all of the differences between successive balance-sheet estimates are not accounted for by transactions and changes in prices during the period, it will be necessary to gather data through special inquiries. As noted above, some of this information would be available from special data required to estimate some of the balance-sheet entries. In other cases the special inquiries would need to concern information on specific reconciliation entries.

10.21. Where probable changes between balance-sheet dates, in the structure of statistical units or in the classification of balance-sheet items are being investigated, the special inquiry should concentrate on large statistical units in which these changes are suspected. In the case of reconciliation items such as adjustments in respect of unforeseen events, natural growth less depletions in timber tracts or new

finds less depletions in subsoil deposits, stratified sample inquiries would be suitable. The collection of data on the natural growth of timber tracts, plantations, orchards and vineyards or fisheries presents serious problems if the information is unavailable from the records of the government departments concerned with these activities. In those cases, a number of difficult surveys would need to be undertaken.

#### 5. A programme of annual statistical inquiries

10.22. In view of the limitations in the balance sheets available from the administration of private and government bodies and the needs for special inquiries noted above, consideration might be given to conducting coherent annual sample inquiries in order to gather suitable basic data for purposes of compiling the balance-sheet, capital finance and reconciliation accounts and supporting tables. To compile and reconcile reliable data on balance sheets for successive dates and on capital transactions and adjustments between these dates, it would be valuable to integrate the annual collection of data on stocks of, and transactions in, financial assets and liabilities and on stocks and changes in non-reproducible tangible assets. As was indicated earlier in this section of the paper, reproducible tangible assets are generally already adequately covered through inquiries conducted for purposes of the capital transaction accounts. Other advantages of such coherent annual inquiries are the assurances that may be given to respondents concerning the confidentiality and use for statistical purposes only, of the data sought and the possibilities of standardizing statistical units, reference periods, classifications and definitions.

10.23. The coherent annual sample inquiries should first focus on incorporated enterprises other than those well-regulated units, such as banks, other financial institutions and public utilities, for which adequate data are available from the records of the government agencies concerned. Later, the programme might be extended to a regular sample survey of households and their unincorporated businesses. It may be desirable to gather data on the major consumer durables of the sample households as well as on their financial assets and liabilities and non-reproducible tangible assets. In order to make the programme of coherent annual inquiries practicable, they should be sample surveys, probably based on one stage stratified sampling in the case of incorporated enterprises and on two, or even three, stage stratified sampling in the case of households. An increasing number of countries carry out, or plan to conduct, statistical field surveys of integrated balance-sheet and transaction data, in particular in the case of financial assets and liabilities of enterprises.

10.24. The items of data sought in these surveys must of course be easily understood by respondents and be feasible to gather from their records or recollections. This may make it impracticable in certain instances to gather information directly in the form desired for purposes of compiling balance-sheet and reconciliation estimates. For example, it will probably be necessary to allow small enterprises to report according to the closing dates for their business accounts though these dates may differ from those wanted and to adjust the data in the manner suggested in paragraph 10.9 above. Requesting balance-sheet data valued at market prices will probably be impracticable - in particular from smaller enterprises and households - in the case of such items as land, fixed assets, long-term bonds and equity securities. In these instances, it may be feasible to request book values from all the respondents and a listing of holdings, giving their identity, value and date for acquisitions and for disposals during the last period of account, in the case of a sub-sample of the small enterprises and households. These data, coupled with the appropriate series of price indexes and the book values for all the respondents, could be used to estimate market values. Alternatively, the registers discussed in paragraph 10.17 above might be used for the inventory in the case of land, long-term bonds and equity securities. It will be essential to simplify the character and classifications of the information sought from sample households.

C. The indirect approach

1. Character and advantages of the approach

10.25. The indirect approach to compiling the balance-sheet accounts and tables eliminates the need to gather balance-sheet data, but not transaction, price and other reconciliation data, annually; balance-sheet estimates for a benchmark date are extrapolated, year-by-year, (or for other periods) by means of data on events during each year. The approach is equivalent to maintaining a perpetual inventory for each balance-sheet entry. The same approach may of course be employed to interpolate, year-by-year, between balance-sheet estimates for successive benchmark dates. It is usually necessary to correct the extrapolated estimates for a run of years between benchmark dates by interpolation when data become available for the more current benchmark date. The use of the indirect approach not only reduces the task of gathering balance-sheet data but also hastens the compilation of balance-sheet accounts. It may make it practicable to compile quarterly balance-sheet accounts.

10.26. The worksheet in table 10.1 below illustrates the use of the indirect approach in extrapolating benchmark balance-sheet data, and in interpolating between successive benchmark figures. It is assumed that revaluation because of market price changes is the only reconciliation item.

Table 10.1. Worksheet: indirect method of compiling estimates of a balance-sheet item

|   | Year  |        |       |        |
|---|-------|--------|-------|--------|
|   | First | Second | Third | Fourth |
| 1. Price index, end of designated year  | 105.0 | 109.0  | 107.0 | 115.0  |
| 2. Price index, average during designated year  | 102.5 | 107.0  | 108.0 | 108.0  |
| 3. First benchmark date, end of year preceding first year                               | 500   |        |       |        |
| 4. Extrapolated estimate at end of previous year  |       | 531    | 559   | 545    |
| 5. Row 3 or 4 revalued to end of designated year  | 525   | 551    | 549   | 586    |
| 6. Reported transactions during designated year   | + 6   | + 8    | - 4   | +42    |
| 7. Transactions revalued at end of designated year                                      | + 6   | + 8    | - 4   | +45    |
| 8. Extrapolated estimate at end of designated year                                      | 531   | 559    | 545   | 631    |
| 9. Second benchmark date, end of fourth year  |       |        |       | 639    |
| 10. Discrepancy between extrapolated and interpolated estimates, end of designated year | + 1   | + 2    | + 3   | + 8    |
| 11. Interpolated, estimate, end of designated year                                      | 532   | 561    | 548   | 639    |
| 12. Transactions during designated year   | + 6   | + 8    | - 4   | +42    |
| 13. Revaluations during designated year, interpolated estimates                         | +26   | +22    | - 7   | +52    |

10.27. The calculations in table 10.1 proceed in the following manner. In extrapolating the balance-sheet entry, 500, for the first benchmark date, the balance-sheet estimate at the end of the preceding year is revalued to the end of the following year in question; and the revalued transactions during the latter year are added to arrive at the balance-sheet estimate as of the end of that year. It is assumed that transactions during the year in question have been evenly spread over it; thus their average price is reflected by the average index of prices for the year and their revaluation to the end of the year may be based on the ratio between the end-of-year index and the average index. In interpolation, the difference in the extrapolated estimate and the balance-sheet figure for the second benchmark date is assumed to be due to inaccuracies in revaluation, that is the price indexes used for this purpose. The difference in the balance-sheet figures between the first and second benchmark dates, after adjustment for transactions, is allocated to each year in proportion to the price index for the end of the year in question, setting the index at the first benchmark date at 100.

## 2. The perpetual inventory of fixed assets

10.28. As is indicated earlier in this paper, perpetual inventories are commonly used to build up and maintain balance-sheet data on reproducible tangible fixed assets from annual or quarterly data on gross fixed capital formation, on capital consumption and on correlated price indexes of capital goods. This method is illustrated by the worksheet given in table 10.2 below. In this table straight-line depreciation is used and it is assumed that the asset concerned always has a life of four years. Lines a, b and c are available from estimates used in the national accounts. The gross stock at, for example, the end of year 6 (line d) is the sum of line c in years 3, 4, 5 and 6, i.e.  $800 + 800 + 1,000 + 1,300 = 3,900$ . Capital consumption in that year (line e) is  $\frac{3900}{4} = 975$ . The increase in the net stock (line f)

is line c less line e, i.e.  $1300 - 975 = 325$ . So net capital stock (line g) is  $1350 + 325 = 1,675$ . The remaining lines are easily calculated and lines i to m give the figures needed for the balance sheets, (i and m), capital transactions (j and k) and reconciliation accounts (l). The calculations can be improved by using survival curves, for example that 25 per cent of assets last three years, 50 per cent last four years and 25 per cent last five years.

10.29. If figures for gross fixed capital formation are available by type of asset in the case of each institutional sector of the economy, the method may be used for each sector.

10.30. It is not necessary to have benchmark data from censuses or sample inventories of fixed assets; the starting figures of stocks may be built up by applying the perpetual method over a sufficiently long period. Information is essential for this purpose and to maintain the inventory on the average life, or a survival curve, on gross fixed capital formation and price indexes for as many different types of asset as is possible. If benchmarks can be obtained by other means, they will provide a most useful point of departure or check on the perpetual inventory method.

Table 10.2. Worksheet: perpetual inventory method of compiling estimates of fixed assets for flow data a/

|                                    |   | Price basis   | Year |       |       |       |        |        |        |        |
|------------------------------------|---|---------------|------|-------|-------|-------|--------|--------|--------|--------|
|                                    |   |               | 1    | 2     | 3     | 4     | 5      | 6      | 7      | 8      |
| Gross fixed capital formation      | a | Current price | 500  | 735   | 848   | 920   | 1 150  | 1 560  | 2 600  | 2 700  |
| Price index, year 1 = 100          | b |               | 100  | 105   | 106   | 115   | 115    | 120    | 130    | 150    |
| Gross fixed capital formation      | c | Year 1 price  | 500  | 700   | 800   | 800   | 1 000  | 1 300  | 2 000  | 1 800  |
| Gross capital stock at end of year | d | "             | 500  | 1 200 | 2 000 | 2 800 | 3 300  | 3 900  | 5 100  | 6 100  |
| Capital consumption                | e | "             | 125  | 300   | 500   | 700   | 825    | 975    | 1 275  | 1 525  |
| Annual increase in net stock       | f | "             | 375  | 400   | 300   | 100   | 175    | 325    | 725    | 275    |
| Net capital stock                  | g | "             | 375  | 775   | 1 075 | 1 175 | 1 350  | 1 675  | 2 400  | 2 675  |
| Net capital stock at end of year   | h | Current price | 375  | 814   | 1 140 | 1 351 | 1 552  | 2 010  | 3 120  | 4 013  |
| Stock at beginning of year         | i | "             | 0    | 375   | 814   | 1 140 | 1 351  | 1 552  | 2 010  | 3 120  |
| Gross fixed capital formation      | j | "             | +500 | +735  | +848  | +920  | +1 150 | +1 560 | +2 600 | +2 700 |
| Capital consumption                | k | "             | -125 | -315  | -530  | -805  | - 949  | -1 170 | -1 658 | -2 288 |
| Revaluation <u>b/</u>              | l | "             | -    | + 19  | + 8   | + 96  | -      | + 68   | + 168  | + 481  |
| Net capital stock at end of year   | m | "             | 375  | 814   | 1 140 | 1 351 | 1 552  | 2 010  | 3 120  | 4 013  |

a/ For the sake of simplicity it is assumed that there was nil stock before year 1.

b/ Conceptually, revaluation of gross stock less revaluation of accumulated capital consumption.



### 3. Sources and uses of required data

#### (a) Transactions and prices

10.31. A number of the series of data on transactions and prices needed in using the indirect approach to making balance-sheet estimates may be available from work on areas of statistics other than balance sheets.

10.32. If capital transactions and balance-sheet accounts are co-ordinated and integrated, as proposed in this paper, the estimates of the capital transactions of institutional sectors and sub-sectors made for national accounting purposes can be used. These estimates will be useful provided they have been made from data from administrative sources and/or special inquiries on the transactions themselves, and not on differences in entries between successive balance sheets. As is indicated earlier in this paper, the differences in these entries may be due to events in addition to transactions and may not properly reflect changes in the value of stocks, disposals of assets and redemptions of liabilities. Suitable data on changes in stocks and the gross capital formation and the depreciation in fixed assets of institutional sectors and sub-sectors are most likely to be available from national income accounting. Reliable estimates are not likely to be available from work on the national accounts which are classified in sufficient detail for purposes of the indirect (perpetual inventory) approach in the case of the experience of institutional sectors and sub-sectors with various kinds of non-reproducible tangible assets or with various types of financial claims. In that case, it will of course be necessary to develop independent, supplementary sources of information on the transactions and experience. These sources might consist of the registers and/or special inquiries discussed earlier in this section of the paper.

10.33. Series of price indexes which are useful in revaluing balance-sheet assets may be available from the work of statistical, administrative or other authorities on prices in the case of stocks and fixed assets, in the case of land used for residential, industrial and commercial purposes and in the case of equity securities. In fact, the former price series are needed to compile national accounting data on increases in stocks and perpetual inventories of fixed assets. However, difficulties may be encountered in using these data because they may not be classified according to institutional sectors and sub-sectors. The same sort of difficulties will be encountered in the case of the available series of price indexes on land and securities. Thus, it will be necessary, ideally, to compile special price indexes in respect of the mix of a given kind of asset held by each of the institutional sectors and sub-sectors, using the most detailed series of prices available, weighted in terms of the mix of the assets in question at benchmark dates. More detailed classification of the available price indexes on the various types of assets would, in general, be valuable for purposes of applying both the indirect and direct approaches to estimating balance-sheet entries.

10.34. In the case of non-reproducible tangible assets such as timber tracts and subsoil deposits, information would be needed on trends in net income and in rates of return for purposes of revaluation. Data on net income should be available from national accounting work; information on expected rates of return would need to be gathered independently from the enterprises engaged in these activities.

(b) Other reconciliation items

10.35. While information on changes in the institutional sector and sub-sector of statistical units and in the classification of financial assets and liabilities may be available from the collection and compilation of data on capital transactions in national accounting, information for purposes of compiling reconciliation items such as the natural growth less depletions of timber tracts, plantations or fisheries and new finds less depletions of subsoil deposits, will need to be collected from administrative sources or in special inquiries as part of the work on the indirect approach to balance-sheet estimates. This may also be necessary in the case of information on structural changes in statistical units. The needed information may be available from government forestry departments in the case of timber tracts, from agricultural ministries in the case of plantations, from natural resources or mining departments in the case of subsoil deposits, and from the administration of company acts, anti-monopoly acts and/or regulatory agencies in the case of structural changes. Special inquiries designed for these purposes should be small in scale in view of the number and complexity of the queries required in order to elicit the information.

D. Developing a system of balance-sheet and reconciliation accounts

1. Research into availability of data

10.36. The first steps in developing a system of balance-sheet and reconciliation accounts and tables should be (a) the design of these accounts and tables and (b) a comprehensive inventory and evaluation of the sources and series of data which are already available for this purpose. As is indicated earlier in this section of the paper, many of the kinds of data required may already be available from government and private administration, from statistical field inquiries and from compilations for other purposes, in particular, for compiling capital transaction accounts and tables and price statistics. However, some of the available series of data may not be suitable at all, or suitable only after modification or supplementation, for purposes of balance-sheet work. A valuable means of carrying out this evaluation is to attempt the preliminary, even if sketchy, compilation of the proposed balance-sheet and reconciliation accounts and tables. This should not only indicate the values and limitations of the available data and suggest the modified, supplementary and new series of data that need to be gathered, but also reveal the alterations required in the proposed balance-sheet and reconciliation accounts and tables.

10.37. As part of the design of the body of data that is to be developed, it will be necessary to decide on the approaches to be used in estimation and the sources, means and methods of gathering supplementary and new series of data. In general, it may be necessary to use differing combinations of the direct and indirect approaches to estimation in the case of each of the institutional sub-sectors. It would be desirable to use both the approaches, if feasible, because then the two sets of data built up by the direct and indirect approaches furnish cross-checks. In any case, it will usually be necessary to use the indirect approach in order to reconcile successive balance sheets compiled by means of the direct approach.

10.38. The research mentioned above should furnish the basis for planning the gradual development of the system of balance-sheet and reconciliation accounts and tables. The paragraphs below deal primarily and briefly with the orders of priority which might be assigned to balance-sheet and reconciliation accounts in the case of each of the institutional sectors, in the light of the urgency of the needs for the information and the possibilities and problems of compiling the data.

## 2. Financial institutions

10.39. The compilation of balance sheets and reconciliation accounts and tables in the case of financial institutions, in particular, banks, insurance companies and the like should be and, in general, are assigned the highest order of priority. The accounts and tables are usually easier to compile than those for other institutional sectors and will yield much valuable financial information on other sectors and the economy as a whole, as well as on the financial institutions themselves.

10.40. In the case of most countries, study of the available series of data is likely to indicate that many of the series of data needed to compile balance sheets and reconciliation accounts are already gathered by regulatory or statistical authorities, or could be relatively easily compiled from administrative records, in the case of financial institutions, especially banks and insurance companies. It should none the less be expected that some of the available data will need to be modified, supplemented or corrected. For example, intra-sector transactions in financial claims may have been consolidated out or intra-sector assets and liabilities may not be equivalent; figures of fixed assets or securities may not be at market prices; the corresponding balance-sheet and transaction items may be inconsistent. None the less, the task of developing useful balance-sheet and reconciliation data will probably be found to be easier in the case of financial institutions than in the case of other institutional sectors.

10.41. The balance sheets and transaction data on the financial assets and liabilities of financial institutions may be used not only for studies of these institutions but also for the compilation of these data in the case of the economy as a whole and other institutional units. For example, the balance sheets would yield data for studies of monetary conditions and policies, the availability of credit, and the liquidity and portfolio behaviour of financial institutions. Their transactions in, and registers of, currency, deposits, loans, bonds and other securities would yield valuable data on selected financial assets and liabilities of other resident institutions and of the rest of the world. For the latter purposes, as well as certain studies of monetary conditions, it is advantageous to compile consolidated balance sheets on the financial institutions.

## 3. General government

10.42. The development of balance sheets and reconciliation accounts of the sub-sectors of government should be undertaken after starting work on financial institutions. The accounts and records maintained by these bodies for administration and management, which would be the prime source for basic balance-sheet and reconciliation data, should be available to the statistical authorities. Moreover, these data are urgently needed for monetary and fiscal analysis, assessment of governments' role in the economy and the measurement of the assets of residents in government securities, of the resident assets and liabilities of the rest of the world and of national wealth. For purposes of delineating the financial links between governments, on the one hand, and other resident sectors and the rest of the world, on the other, and for purposes of obtaining data on the latter sectors from the government accounts, it will be advantageous to compile consolidated balance sheets and reconciliation statements for general government. Greater priority should be assigned to the compilation of the data in the case of the central government than in the case of state and local governments. The required accounts and records of the former will usually

be more readily available and better organized for statistical use; the requirements for balance-sheet data are also considerably more urgent. It may, in fact, not be feasible to spend the time needed to work directly from the administrative accounts and records of all state and local governments; it may be necessary to resort to using a sample of these bodies for this purpose, or even to mailing simplified questionnaires to be completed by all or a sample of these authorities.

10.43. Using the available accounts and records of government bodies to compile balance sheets and reconciliation accounts is a sizable task. In order to gather the wanted data on stocks and fixed assets, it will probably be necessary to engage in the classification and summarization of figures on quantities and costs of acquisition from detailed records and accounts. Valuation of these assets, will raise additional problems. Compilation of data on non-reproducible tangible assets such as land, subsoil deposits and commercial forest tracts, will present major difficulties. The data will probably need to be built from listings of the character, magnitude, uses and operations, incomes, etc. of these various assets, coupled with series of relevant market prices and capitalization ratios. The problems of compiling the desired data on financial assets and liabilities are likely to be much less severe than those in the case of real assets. The classifications used in the administrative accounts of government bodies will probably approximate those of the balance-sheet accounts closely enough and the required unit-values for assets and liabilities are likely to be available from organized markets.

#### 4. The rest of the world

10.44. Though the rest of the world is not, strictly speaking, an institutional sector, the compilation of at least balance-sheet and capital-finance data on the financial assets and liabilities of residents in respect of non-residents deserves special attention. These data, coupled with comparable data on the financial assets and liabilities of financial institutions and of general government, furnish the basis for studies of the liquidity of the economy and of monetary and balance-of-payment policies. Data on selected foreign financial assets and liabilities are of course also needed to measure the international reserves and offsets of a country. For such purposes data on the outstanding financial claims between residents and non-residents are called for in standard tables 34 and 35 proposed in this paper and on corresponding transactions in the claims in standard tables of the SNA.

10.45. While the uses mentioned above indicate that the compilation of balance-sheet data on foreign financial assets and liabilities merits about the same order of priority as that in the case of the balance sheet and associated accounts of general government, the assignment of a lower order of priority is suggested because data are needed on the outstanding claims between resident non-financial corporations and the rest of the world as well as between financial institutions and general government and the rest of the world. These claims may be significant in the case of pairs of subsidiaries and their parent companies, one of which is abroad and the other at home, and in the case of corporate equity securities and deposits. It may be necessary to undertake a periodic special inquiry, at least in the case of the large non-financial corporations, to gather this information. It is best to collect the data on foreign financial claims as part of information on both resident and non resident outstanding financial assets and liabilities of the corporations.

#### 5. Selected balance-sheet items

10.46. Based on the data on the financial claims of financial institutions, general government, non-financial corporations and the rest of the world, it should be feasible to compile balance sheets on the claims for the nation as a whole and for each institutional sector. Consolidated data on households and private non-profit institutions serving them may be derived from the information gathered from the other institutional sectors.

10.47. Balance-sheet data on the stocks and reproducible assets of the nation as a whole and of the institutional sectors might also be assigned a relatively high order of priority. These assets make up an important part of the capacity to produce and of national wealth and as is indicated above are not too difficult to compile by means of the perpetual inventory method.

#### 6. Corporate and quasi-corporate non-financial enterprises

10.48. Compilation of complete balance-sheet and reconciliation accounts and tables of corporate and quasi-corporate non-financial enterprises should probably be assigned a second order of priority. Gathering the required basic data is likely to be a formidable task and the accounts and tables are less potent sources of information for overall monetary and financial analysis. The balance-sheet and reconciliation accounts and tables of corporate non-financial enterprises however furnish fundamental information on the amount and distribution of the tangible resources and wealth of an economy, on the sources and demands for investments, and on the economic health and financial behaviour of major producers of goods and services. Because data on public non-financial enterprises are likely to be more readily available than data on the private corporate and quasi-corporate enterprises, attention might first be devoted to the former units.

10.49. Data on balance sheets, but not on reconciliation items and capital transactions, will probably be available in the case of corporate non-financial enterprises from public and private administration, such as income tax, company registration acts, regulation of public utilities, stock-exchange requirements and/or public reports to stockholders. Such available data should of course be employed in the first attempts at compiling balance sheets for these units. However, as is emphasized earlier in this section of the paper, the available balance-sheet data are likely to be insufficiently standardized and inappropriately classified and valued for purposes of compiling the balance-sheet accounts. It will therefore be necessary to take steps to standardize and improve these balance sheets and to supplement them by information from administrative registers, from national accounting and other statistical activities, and from special ad hoc field surveys; or to develop and conduct a coherent sample field inquiry into data on balance sheets, on transactions in financial claims and on the reconciliation of successive balance sheets, coupled with use of series from other statistical programmes. The desirability and feasibility of the latter approach will depend on the potentialities, problems and difficulties of relying primarily on statements that are a by-product of administrative and other statistical activities as compared to those of a field inquiry.

7. Private non-profit institutions serving households

10.50. The compilation of balance-sheet and reconciliation accounts and tables on private non-profit institutions may be assigned a third order of priority. It may not be difficult to compile the accounts and tables from the data which will probably be submitted to government income tax and/or regulatory authorities. However, the requirements for the data are not urgent as the private non-profit organizations usually play a minor role in an economy.

8. Households, including unincorporated non-financial enterprises

10.51. As little, if any, usable direct information on the balance sheets of households and unincorporated non-financial enterprises will be available from administrative and similar sources, the compilation of balance-sheet and reconciliation accounts and tables for them might be assigned a third order of priority. However, as balance-sheet and reconciliation accounts are compiled for other institutional sectors, it should be feasible to build up figures for the financial assets and liabilities of households, including their unincorporated non-financial enterprises. This would, for example, be the case for their holdings of bills and bonds, corporate equity securities and equity in life insurance and pension fund reserves. The compilation of data on the fixed assets and non-reproducible tangible assets of the nation as a whole and of the other institutional sectors, would also yield residuals that could be taken to be the household holdings of these assets. For purposes of the compilation of complete and integrated balance-sheet and reconciliation accounts and tables on households, including their unincorporated enterprises, it would be necessary to develop a recurrent sample household inquiry and to check and supplement the figures gathered by data derived from the preparation of the accounts and tables for other institutional sectors and from other statistical programmes.

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