Basis and delimitation

National accounts aim at providing an overall picture of activity in the economy. The accounts illustrate how income is generated as the result of a production process, and how this income is subsequently distributed and redistributed before giving rise to demand for consumption and capital formation of goods and services. As almost all activity has an economic element, statistics providing data on activity in the economy must be supplemented by a more detailed definition of the activity which is to be expounded.

The goods and services which are included in the national accounts are primarily defined as being produced for the object of *market* sales, i.e. sales where a profit is intended. This principle is based on the fact that goods and services are sold via a market at market prices which may be regarded as an objective valuation of the goods and services sold.

In a few areas the principle that only observable market economic activity is to be included is disregarded. Thus, the values of goods which are produced in households for own private consumption are included, for example, farmers' consumption of own products. In contrast, the value of services produced in households for own private consumption (for example, cooking and cleaning) are not included in the national accounts, except the value of owner-occupied dwellings. The services thus covered are valued based on market prices for equivalent goods or services or an obvious alternative.

Furthermore, a number of *non-market* activities are included in the national accounts. These are primarily production of public services. The value hereof is calculated as expenditure involved in producing the service.

Provisional versions of national accounts are indicated by the sign *. These figures are continuously revised as more primary statistical data are gradually incorporated. In the present edition the April-version 2002 is used.

Geographically the national accounts cover only Denmark, whereas transactions with the Faeroe Islands and Greenland are treated as external transactions.

The national accounts are prepared in concurrence with the definitions of *the European System of Accounts (ESA 1995)* which is based on the UN's *A System of National Accounts 1993* (SNA93). Grouping of industries is in accordance with Statistics Denmark's *Dansk Branchekode 1993* (DB93) (Danish Sector Code 1993), which is based on EU sector nomenclature, NACE Rev.1.

An outline of the formal structure of the national accounts and the possibilities of undertaking analyses are given in the following sections. The section *Review* sums up those parts of the national accounts which are used most in practice.

Value concepts

The value of the above market and non-market activity is the output value. The value added is obtained by subtracting intermediate consumption from the output value. It can be valued by means of three price concepts:

The market price is the price at which output-value goods and services are actually sold on the market, i.e. including indirect taxes less subsidies.

The basic price is calculated by subtracting taxes on production, e.g. VAT and excise duties, from the market price and adding subsidies on products. This price concept is used in compiling production value and value added for individual industries.

The factor price is the basic price less other taxes on production, for example, motor vehicle weight duty and property taxes, plus other subsidies on production.

Economic transactions which cover regular flows of goods and services are compiled at *current prices* and *at constant prices (at present 1995 prices).* Values at constant prices are used to monitor changes in terms of quantity.

Gross and net concepts

In the national accounts, the term "net" has two meanings. A net aggregate is either the difference between two gross aggregates, for example, gross receipts and gross expenditure, i.e. net receipts, or a gross aggregate less *consumption of fixed capital (= depreciation).*

Review

The supply and demand balance gives a summary of the most important economic aggregates which can be derived from the *Full sequence of accounts for the total economy,* cf. below. The supply and demand figures illustrate the value of goods and services for *final use* and their breakdown by aggregates of demand, i.e. the domestic final use: Private and public consumption expenditure, capital formation, and exports of goods and services to the rest of the world. This final use of goods and services is only possible due to a corresponding *supply,* which can either be assigned to the value added, generated in Denmark *(gross domestic product, GDP)* or via supply from the rest of the world (imports).

The tables illustrate changes at 1995 prices, so as to analyse changes in quantity, i.e. the real growth in each individual aggregate. Real growth is also shown as annual increase in per cent.

Real growth in GDP is particularly interesting due to the fact that the concept is normally associated with *economic growth.* However, *gross value added at basic prices (called gross value added)* is a more appropriate measure of growth, i.e. growth in the gross domestic product, excluding net product taxes, because it illustrates the economic growth, independent of taxes on products and subsidies.

Changes in the main aggregates of supply and demand are illustrated graphically by means of index numbers of which the base year 1995 equals 100.

Growth in terms of prosperity is largely determined by changes in *productivity*, i.e. the actual value added per unit of production factor used. The simplest real measurement of productivity is labour productivity measured in terms of real value added (*gross valued added* in 1995 prices) in relation to the number of persons in employment. The result from this division is not in itself interesting, as it depends on the base year which is used when calculating constant prices. In contrast, changes in the measurement of productivity are of great interest, and consequently the growth in productivity is expressed as the annual percentage change.

Growth in productivity is only given for selected groups of industry and not for the total economy. This is because gross value added at constant prices for the public sector is compiled from the expenditure side and thus primarily consists of labour costs. Changes in labour costs are another measurement of employment changes, which compared to changes in the number of persons employed do not reveal any information on productivity changes in the general government sector.

A number of the main aggregates in the national accounts are compiled at both current prices and constant prices. The relationship between the values at current prices and at constant prices results in the so-called *implicit price indices.*

Implicit price indices are calculated so as to obtain a measurement for the price changes for a group of goods and services. For example, the implicit price index for goods and services which is included in private consumption expenditure are calculated. This is the price index which is generally used to indicate *inflation.*

Price changes for goods and services which are the result of activity in the total economy, are illustrated by the annual percentage growth in the implicit price index for GDP or gross value added.

The functional income distribution illustrates the breakdown of the total gross value added (gross domestic product at factor cost) into production factors. The *wage share* indicates the share of gross domestic product at factor cost which accrues to wage and salary earners in the form of direct compensation of employees and indirect staff costs (employers' contributions, etc.). The remaining amount of the gross domestic product at factor cost accrues to other factors of production to cover *consumption of fixed capital* and as net operating surplus of production and mixed income.

Shifts in the functional income distribution for the total economy are affected by both changes in the distribution within each industry and by changes in the mutual importance of the industries in relation to the total gross domestic product at factor cost.

Changes in the mutual importance of industries can be cancelled out by calculating the wage share according to fixed weights. The *fixed-rate wage ratio* illustrates the size of the wage ratio for each year, assuming that the mutual importance of industries have remained unchanged and only the wage ratios for each industry have changed since the base year for the estimation (here 1995). If the fixed-weight wage ratio is, for example, higher than the actual wage ratio, it thus follows that industries with a relatively low wage ratio have increased their importance in

relative terms, i.e. a greater share of the total GDP at factor cost.

Full sequence of accounts

The logical structure of the system of national accounts is detailed in the following sections. The difference between *Gross and net concepts* and the differences in *Value concepts* are disregarded so as to facilitate understanding.

The goods and services account illustrates the value of the total supply of goods and services, i.e. gross output at basic prices and imports. Supply, by definition, is counterbalanced by total use which is broken down into the main groups intermediate consumption, final consumption expenditure, gross fixed capital formation, changes in inventories and exports.

The production account illustrates the domestic product, i.e. the value added by means of the domestic production factors. Domestic product is obtained by subtracting intermediate consumption from gross output at basic prices.

The generation of income account records the value added in Denmark and how it is used for payment of taxes on production, net, compensation of employees or accrues to resident producers in the form of gross operating surplus and mixed income.

In contrast to the generation of income account, *the allocation of primary income account* focuses on resident units in their capacity as recipients of income, as opposed to producers whose activities generate primary income. The gross operating surplus and mixed income accruing to Danish producers, compensation of Danish employees (stemming both from Danish territory and the rest of the world) and the taxes on production, net, which accrue to government units (not all taxes on production, net, accrue to government units, as some accrue to EU institutions) are shown. If income from foreign assets, net, which primarily comprises interest and dividends, is added, the *gross national income, GNI* is obtained.

Current income taxes, property and other current transfers (including development assistance) from the rest of the world, net; are added to *the secondary distribution of income account,* thereby obtaining gross national disposable income.

The purpose of *the use of disposable income account* is to illustrate how national income is allocated between final consumption and savings. The difference between final consumption and savings is the time of consumption, as the use of income which is concurrent with the generation of income, is regarded as final consumption.

The purpose of *the capital account* is to illustrate how savings are allocated between capital formation, investment grants to the rest of the world or to net lending. Recording net lending with a minus sign indicates that the gross national disposable income has been insufficient to cover final consumption and investment activities in the period in question. As each economic activity is always financed, net lending with a minus sign implies that activities are financed from the rest of the world, i.e. by foreign loans.

The account for the rest of the world completes the system of the national accounts, as all transactions in the other accounts, which are related to external transactions, are set off in this account. The balance corresponds to the balance of the capital account, which in turn corresponds to the balance of *the balance of payments on current account*.

Institutional sectors

The detailed breakdown of the total economy in the national accounts serves to illustrate functional and institutional distributions.

The *functional* breakdown offers a technical description of the economy, as it indicates which economic units produce specific goods and services as well as the manner in which they are produced. Economic units, i.e. primarily *workplaces*, are analysed by *industry.* A number of main aggregates from the breakdown by function are described in the section Industry *tables*.

The *institutional* breakdown aims at illustrating economic behaviour, hence decision-making units, typically *firms*, form the basis of analysis in *sectors*.

In the Danish national accounts the economy is divided into 4 main sectors: *the corporate sector, the general government sector, the household sector* and *the rest of the world* where the corporate sector is divided into sub-sectors. Only the main sectors are included in the tables.

Accounts which illustrate a sector's output and transactions with other domestic sectors and the rest of the world are prepared for all domestic economic sectors, cf. the principles which are described in the section on *Full sequence of accounts,* however, note that the goods and services account and the rest of the world account are omitted. An institutional division of the economy implies that in each account a number of special concepts appear which are not incorporated in the full sequence of accounts for the total economy, as the mutual transactions among the sectors cancel out each other in connection with the summation that takes place over the accounts when they are *consolidated.* This is mainly the case for redistribution transactions between accounts for income distribution.

Financial accounts

The financial accounts show, among other things, how the various sectors of the economy place/finance their net lending/borrowing through the use of *financial instruments*. If one year a sector experiences net lending, this will reflect in, for example, the purchase of shares and bonds, an increase in loans/deposits or reduction of debt. These transactions in financial instruments are compiled in the *financial (transactions) account*, which then completes the number of national accounts to shed light on transactions between various *institutional units*. Net lending thereby binds the financial accounts to the rest of the national accounts.

Financial accounts consist of stock and flow accounts for the sectors of the economy where each sector's assets and liabilities and any movement in these are registered across a number of financial instruments. The individual sector's *financial (transactions) account*, which shows the purchase and sale of financial instruments, describes an important part of the transition from the *opening balance sheet* to the *closing balance sheet*. As the financial instruments are valued at market prices, a significant part of the transition from the opening to the closing balance sheet is comprised of revaluations, which are revealed in the *revaluation account*. The remaining part of the transition is explained in the *other changes in volume of assets account*, which, among other things, shows losses on debtors and movements of units between sectors. In the tables shown, revaluation and other changes in the volume of assets have been combined as *other changes in assets account*. The financial accounts that are calculated consolidated and non-consolidated are valued at market prices.

In the individual accounts, both assets and liabilities are set up based on a number of *financial instruments*. It is in the nature of financial instruments that if an instrument appears as an asset for one unit, it will at the same time be a liability for another unit. Looking at, for example, the households' deposits in banks, the deposit will appear in the asset side of the household sector and correspondingly on the liability side of banks. For each individual account and instrument, this sector/counter-sector relationship means that the sum of (including those of the rest of the world) assets of all sectors is by definition equal to the sum of liabilities. At the same time, the sum of all the sectors' net lending is equal to zero.

The *financial instruments* consist of:

Monetary gold and Special Drawing Rights (SDRs) constitute the Danish Central Bank's gold reserves and SDR from member states of the International Monetary Fund (IMF). See the glossary for the Danish Central Bank's balance: Gold reserves and the International Monetary Fund (IMF).

Currency and deposits constitute currency issued by central banks, deposits, which are immediately convertible into currency or transferable by cheque, debit entry and the like as well as other deposits.

Securities other than shares represent papers which are usually negotiable and traded on secondary markets or can be offset on the market, and which do not give the owner any kind of proprietorial rights in regard to the institutional unit which issued them. The papers include bills of exchange, bonds, Treasury notes, certificates of deposit, transferable financial derivatives and similar financial instruments normally traded on the financial markets.

Loans consist of financial assets, which a creditor can lend to a debtor either directly or through a broker, if necessary on the basis of a non-negotiable document.

Shares and other equity represent a property right of ownership on corporations. These financial assets generally entitle the holder to a share in profits of the corporations and to a share in their assets in the event of liquidation. Shares and other equity consist of quoted and unquoted shares, other equities and mutual funds shares.

Insurance technical reserves consist of:

1) Net equity of households in life insurance reserves and in pension fund reserves, including technical provisions which insurance companies and pension funds undertake so as to pay out claims

2) Prepayments of insurance premiums and reserves for outstanding claims, which consist of prepayments of insurance premiums, i.e. the part of an insurance company's gross premiums written, which is allocated to the following accounting period. Moreover, the instrument consists of provisions for outstanding claims arising from events, which have occurred up to the end of the accounting period whether reported or not, less amounts already paid in respect of such claims.

Other accounts receivable/payable comprise outstanding accounts which appear as counterparts to financial or non-financial transactions where a time difference exists between the transaction and the corresponding payment. Trade credits and prepayments are examples of other accounts receivable/payable.

Activity tables

The activity tables provide a *functional* description of the economy broken down into 26 activity groups. For each activity group, the following main aggregates are presented:

The output value is the value of the total market and non-market economic activities by industries.

Gross value added at current prices is the income which accrues to the production factors as compensation for the value added which the industry in question has created itself via the production process.

Gross value added at 1995 prices measures the value added by industries, when price increases since 1995 are disregarded. Changes in the figures are interpreted as growth in terms of quantity, i.e. a measurement of *economic growth.*

Financial intermediation services indirectly measured (FISIM) is the difference between bank interest receipts and bank interest payments, i.e. the interest margin. This is subtracted from the sum of the total gross value added by industry. This so as to incorporate the interest margin in the production value of financial corporations, whilst avoiding an estimated breakdown of the amount by intermediate consumption of each industry.

Compensation of employees includes all types of remuneration, wages or salaries, employers´ and employees´ contributions to social schemes and the value of benefits in kind ("fringe benefits") paid in Denmark, irrespective of the recipient's nationality.

Gross operating surplus and mixed income is calculated by subtracting compensation of employees and other taxes on production, net, from the gross valued added. The income obtained is allocated for compensation of work carried out by self-employed, compensation of capital equipment and consumption of fixed capital ("depreciation"). In the general government sector, the gross operating surplus is equal to the consumption of fixed capital, and it thus follows that the net operating surplus is equal to zero, as the production value is measured from the expenditure side.

Total employment is compiled as total employment weighted against duration of the employment period. The measure of employment results in an average figure, which does not take into account that some persons work part-time and some have more than one job. It follows that the measurement of employment does not equal the total number of jobs for the work performed.

Wage and salary earners is estimated according to the same principles as for total employment. Self-employed persons and assisting spouses make up the difference between total employment and wage and salary earners.

Consumption expenditure

Private consumption expenditure consists almost entirely of final consumption expenditure of households on purchases of goods and services. Private consumption expenditure is grouped into the following categories:

Final consumption of households on Danish territory, which is broken down into 10 consumption groups (food, clothing, etc.) and according to duration.

Income from tourism, i.e. consumption by foreign tourists in Denmark.

Expenditure on tourism, i.e. consumption by Danish tourists abroad. The total consumption expenditure of households is obtained by subtracting income from tourism from total final consumption of households on Danish territory and their consumption abroad.

Associations, organizations, etc. comprise, for example, cultural associations and other associations which supply households with services.

General government final consumption expenditure is broken down into *individual consumption expenditure* and *collective consumption expenditure*. General government final consumption expenditure on individual consumption comprises expenditure on services consumed by individual persons, for example, a wide range of services within education and health. Collective consumption expenditure is expenditure on services consumed collectively, for example, defence and the legal system.

Actual individual consumption is the total of private consumption expenditure and individual consumption expenditure of general government. The figure obtained illustrates the total expenditure on individual consumption and is not affected by any change in the breakdown of payments between households and the general government sector.

Capital formation

Capital formation comprises both gross fixed capital formation and changes in inventories.

Gross fixed capital formation is defined as expenditure on durables, which are goods purchased for use in the production process for more than one year, for example, expenditure on the acquisition of machines and equipment and on construction of buildings. Capital formation is calculated both as net and gross capital formation. The difference is the consumption of fixed capital.

Changes in inventories is the value of quantity changes in inventories, for example, changes in inventories of raw materials and finished goods in manufacturing industries and in the wholesale and retail trade.

Fixed capital

Fixed capital comprises both gross and net capital. The difference depends on whether wear and tear obsolescence and declining remaining service lives are taken into account. The gross capital stock consists of the value of all capital goods valued at as new prices. At constant prices, the net stock equals the gross stock minus accumulated consumption of fixed capital. This reflects the fact that the market price falls when the remaining service life falls.

Consumption of fixed capital in the national accounts expresses the diminishing value of fixed capital as a consequence of wear and tear and obsolescence. Consumption of fixed capital is different from the concept depreciation as used in company accounts, in which there may also be an element of reevaluation as a result of price changes.