

## 11. Main data sources used

Statistics Denmark publishes so-called "Declarations of content" on the internet. These "Declarations of content" describe statistics published and follow a standard structure:

0. Administrative Information about the Statistical Product
1. Contents
2. Time
3. Accuracy
4. Comparability
5. Accessibility
6. Supplementary documentation

In the following sections describing sources used for compiling GDP according to the production approach, the income approach and the expenditure approach, the declarations of content for the main sources are shown.

### 11.0 Statistical surveys and other data sources used for the production approach

The main sources used for compiling GDP from the production approach are:

- Economic Accounts for Agriculture
- Industrial Accounts Statistics
- Supplemental Accounting Statistics for Shipping
- Accounting Statistics for public corporations
- General Government

#### **Economic Accounts for Agriculture**

This declaration was transferred to the Internet on 10 August 2006

##### **0 Administrative Information about the Statistical Product**

###### **0.1 Name**

Economic Accounts for Agriculture.

###### **0.2 Subject Area**

Agriculture

###### **0.3 Responsible Authority, Office, Person, etc.**

Agriculture.

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###### **0.4 Purpose and History**

The purpose of the statistics is to compile the Economic Accounts for Agriculture. The accounts serve as input to the National Accounts.

Economic Accounts for Agriculture exist back to at least 1935. Different attempts to calculate agricultural accounts backwards in time have been made, and a time series for Economic Accounts for Agriculture back to 1818 is published in the publication: *Svend Aage Hansen: Økonomisk vækst i Danmark II*. (Economic growth in Denmark).

## 0.5 Users and Application

The main users are agricultural organizations and the EU. The statistics are used in compiling the National Accounts.

## 0.6 Sources

The Economic Accounts for Agriculture consist of data on values of agricultural production and intermediate consumption. In the production values results from a wide range of production statistics compiled by Statistics Denmark are used. These contain statistics from annual surveys on the harvest of cereals, rape and pulses and the harvest of grass and green fodder and ad hoc surveys of outdoor vegetables, greenhouse crops, fruit and berries. Furthermore, animal production statistics are used.

In calculating intermediate consumption several different statistics compiled by Statistics Denmark are used. These include statistics on production of compound feeds, statistics on supply and use of feed, statistics on the use of cereals and statistics on production and use of straw.

Furthermore, a wide range of external sources are used including the Finance Act, information from the Directorate for Food, Fisheries and Agri-Business on subsidy payments to agriculture and agricultural accounts statistics from the Danish Research Institute of Food Economics.

## 0.7 Legal Authority to Collect Data

As mentioned above, the Economic Accounts for Agriculture use the results of several agricultural statistics compiled by Statistics Denmark, each one having their own legal authority to collect data. Please refer to the declarations of contents for these statistics.

## 0.8 Response burden

Irrelevant in this survey

## 0.9 EU Regulation

Until 2003 Council Directive 130/1989. Hereinafter legal act 138/2004 from Parliament and Council on Economic Accounts for Agriculture.

## 1 Contents

### 1.1 Description of Contents

The Economic Accounts for Agriculture form the basis of the agricultural part of the National Accounts. The bottom line of the statistics is the gross value added at factor prices, which measures the income available for the input of labour and capital, including depreciation, return to internal and debt capital, compensation of employees and return to the farmer.

The Economic Accounts for Agriculture can be split up into the following headings:

- Value of agricultural sales ex producer
- Income from agricultural services
- Income from inseparable non-agricultural secondary activities
- Value of changes in stocks
- Intermediate consumption
- Gross value added at producer prices
- Subsidies and taxes on products
- Gross value added at basic prices
- General subsidies and taxes
- Gross value added at factor prices

### 1.2 Statistical Concepts

Population:

The aim of the statistics is to measure the commercial result of the extended agricultural sector, including agriculture, horticulture, fur-breeding, hunting and bee-keeping.

For further information on the statistics mentioned in item 0.6, please see the Declarations of Contents, which are included in the calculation of Economic Accounts for Agriculture.

The basis for compiling the statistics is described below:

EU harmonized statistics

The compilation is based on a range of definitions and calculation methods, which are described in the publication *Håndbog i brancheregnskaber for landbrug og skovbrug*, Eurostat, Luxembourg 2001 (Manual on Economic Accounts for Agriculture and Forestry, 2001). The essence of this methodological description is part of an EU Regulation (138/2004), which Statistics Denmark is now also formally obliged to comply with, when reporting data to the EU.

The principle: the kind of economic activity unit

The compiling of production is, in principle, conducted EU for each individual production activity performed in agriculture. This

implies, in practice, that the part of vegetable production, which is used internally in agriculture as feeding stuffs for animals, is now also included in the value of agricultural sales products (income), as well as intermediate consumption (costs). The internal turnover comprises both the consumption of own products by each farm and the consumption of feedings stuffs purchased from other farms.

The production also covers agricultural services and secondary activities, which cannot be distinguished from the primary production.

#### Compilation of EAA

Economic Accounts for Agriculture is calculated in accordance with the compilation method applied contains the following items:

- + Total value of agricultural sales ex producer
- + Total income from agricultural services
- + Income from non-agricultural secondary activities
- + Total value of stock changes at producers
- Total intermediate consumption
- = Gross value added at producer prices
- + Subsidies on products
- Taxes and duties on products
- = Gross value added at basic prices
- + General subsidies
- General taxes and duties
- = Gross domestic product at factor costprices.

#### *Value of sales products*

Sales values are generally estimated on the basis of quantities sold and average sales prices, exclusive of subsidies and inclusive of duties.

The sales values indicated exclude producers yield from the schemes and support measures, which result in direct payments. The product duties paid by producers are set off in the sales values.

#### *Crop products*

##### Internal sales

For crop products, which are used as feeding stuffs for livestock, the value of internal sales in agriculture of the sales values indicated is included. Internal sales cover sales between agricultural holdings as well as products produced and used as feeding stuffs by each individual agricultural holding. Internal sales are compiled on the basis of product balances prepared by Statistics Denmark and combined with information from the accounts of the Danish Research Institute of Food Economics. It should be noted that internal sales are also included in intermediate consumption.

##### Cereals

The sales value of cereals covers total sales of cereals to other industries as well as internal sales of cereals in agriculture. Invoiced prices for fodder cereals combined with official prices of barley and wheat are applied in valuing internal sales.

##### Pulses

The sales value is estimated on the basis of the total harvest of field peas and other pulses, when shrinkage has taken place. The quantity harvested is valued by using average settlement prices, which have been calculated by major cereal and feeding stuff merchants. The sales value also covers internal sales of pulses.

##### Potatoes

The value of the production of potatoes is estimated as total sum of the value of potatoes for human consumption, potatoes for production flour, for other production, for exports and for domestic use, e.g. seed potatoes. Prices ex producer are collected or estimated, which are included in the valuation. The sales value also covers internal sales of potatoes.

##### Seeds for sowing

The quantity is estimated by the Danish Plant Directorate as the total harvest, and the prices are breeders prices submitted by the Danish Association of Seed Growers.

##### Seeds for industrial use

The production value is estimated as the total harvest multiplied by average settlement prices calculated by the Federation of Danish Seed Growers and the Association of Danish Garden Seed Retailers. It is assumed that 10 pct. of the total quantity of rape seed grain is made up by seeds for sowing from own production, and this part is, consequently, deducted from the sales quantity. Correspondingly, the purchases of rape seed grain are reduced by this quantity.

##### Sugar beets

The sales value of sugar beets is estimated on the basis of the quantities purchased by the sugar beet factories, settled prices for sugar beets, and any deferred payments to producers. As far as sugar beets are concerned, there is one exception from the

principle of including taxes on products, which is that the elimination levies are deducted from the prices.

#### Horticultural products

The estimates of valuing horticultural products are based on the development at the first distributive stage, with respect to values, prices and quantities. Information on values is primarily collected from the Marketing Board for Market Garden Produce. The value of nursery products is based on the accounts statistics compiled by the Danish Research Institute of Food Economics, as retail sales are in this context excluded from the statistics. Information on the production value of tinned peas, which are included in free-range vegetables as from 2000, is submitted by manufacturers.

#### Christmas trees

The value of the production of Christmas trees on agricultural land is estimated on the basis of information from the agricultural accounts statistics compiled by the Danish Research Institute of Food Economics.

#### Fodder beet, straw, grass and green fodder

Internal sales account for the predominant part of the value of fodder beets, fodder straw, grass and green fodder. The remaining part consists of mainly products, which are sold for industrial use in producing alfalfa flour, grass flour and green pills. Up to and including 1999, an estimated price of DKK 1.00 per fodder unit was applied in pricing internal sales. As from 2000, the price is adjusted to DKK 0.90, see the calculations made by the Danish Agricultural Advisory Centre.

#### Other crop products

Other crop products comprise primarily straw, which is used in the manufacturing industry and for heating. The quantities are based on the harvest survey.

#### *Animal products*

##### Meat and live animals

The sales value of meat and live animals comprises for each species of animals, animals slaughtered in placecountry-regionDenmark as well as the value ex producers for exports of live slaughtered animals. Furthermore, the sales value of breeding animals and work-animals ex producer for animals that are exported are included, while the sales of these animals between farmers are excluded, although these sales take place via middlemen (e.g. sales of piglets).

##### Natural milk

The sales value of natural milk covers the value of the total weighed milk volume at the dairies, producers own consumption and sales directly to the consumers. The figures stated are indicative of the sales values that have been achieved, inclusive of any supra-duties levied in accordance with the milk quota schemes and the general taxes on production, etc.

##### Eggs

The sales value of eggs for human consumption covers sales of hens eggs for human consumption, including producers own consumption and sales of eggs for consumption directly to the consumers.

##### Furred animals

The Danish Fur Breeders Association estimates the annual production of skin and the value is arrived at by using average auction prices (knocked down prices) less producers sales duties.

##### Other animal products

Other animal products cover sales of honey, wool and rabbits for slaughtering.

#### *Agricultural services and secondary activities.*

##### Agricultural services

The value of agricultural services covers own income of the holding derived from services provided at machine pools and rental of milk quotas. The statistical data on income from services provided at machine pools are based on information from the accounts statistics compiled by the Danish Research Institute of Food Economics, while the statistical data of rental of milk quotas are based on information from the Danish Dairy Board.

##### Secondary activities

The "inseparable non-agricultural secondary activities" cover income from rental of non-independent assessed dwellings, income from tourism and income from rental of land for hunting, income from boarding of animals and various inseparable income. The statistical data on secondary activities are based on information from the accounts statistics compiled by the Danish Research Institute of Food Economics.

#### *Stock changes at producers*

##### General principles

The value of stock changes at producers is estimated on the basis of a separate calculation for each of the periods for which a quantitative calculation of the changes can be made. In estimating the value, weighed average sales prices are used during the period, and the value for the whole year is estimated as the sum of the value of changes in each individual period.

### Cereals

For cereals the annual stock changes of agricultural products are estimated for the entire period taken as a whole, and the reference period is due to indirect calculations subject to some margins of statistical uncertainty for the most recent years. In estimating the value, weighed average sales prices are used during the entire period.

### Other crop products

For other crop products, including horticultural products and coarse fodder, statistics on stock changes are not compiled.

### Stock changes

Stock changes of pigs and cattle are estimated on the basis of changes in the periods between quarterly surveys. Until the 3rd quarter 2001, changes of cattle are estimated on the basis of semi-annual surveys. Stock changes of sheep, horses and furred animals are based on annual surveys. The values are estimated by using average prices over the period in which the stock changes are estimated.

### *Intermediate consumption*

#### Definition

Intermediate consumption covers total purchases of agricultural purchases of raw and auxiliary materials related to intermediate consumption, including purchases from middlemen, etc. crop products used internally, expenditure on repair and maintenance of production facilities, expenditure on agricultural services (including machine pools) and expenditure on services provided by other industries.

#### General principles

If there are any available quantity and price data on the raw and auxiliary materials used, expenditure is estimated on the basis of the total purchases and the average prices paid for each individual raw and auxiliary material, while information from existing accounts statistics and information from different special statistics are used in the calculation of the other items of expenditure.

#### Seeds for sowing

The consumption comprises seeds for sowing and seeds sold to the agricultural sector and estimated expenditure on seed potatoes. For horticultural holdings, expenditure on planting stocks is included, which is based on information from the accounts statistics compiled by the Danish Research Institute of Food Economics.

#### Feeding stuffs

Expenditure on feeding stuffs is estimated on the basis of purchases of straight feeding stuffs and compound feeding stuffs and the actual prices paid by farmers for the products supplied. The internal use of feeding stuffs of crop products, including cereals and coarse fodder, is included in the calculation of expenditure as preliminary figures for the most recent year.

#### Returned milk

Expenditure on returned milk for feeding stuffs comprises the repurchasing of skimmed milk, buttermilk and whey.

#### Other purchases of feeding stuffs

Expenditure on other purchases of feeding stuffs comprises, e.g. purchases of molasses, feed yeast, pulp, mash and sediment, as well as different imported vegetable feeding stuffs, e.g. tapioca flour and citric pomace, etc.

#### Commercial fertilizers

Expenditure on commercial fertilizers is estimated as the value of the total consumption of fertilizers in placecountry-regionDenmark, together with a roughly estimated deduction of 3 pct., covering consumption outside the agricultural and horticultural sector. The consumption of fertilizers is estimated by the Plant Directorate. Prices are based on information from the Danish Cooperative Farm Supply and Kemira GrowHow, which are assumed to represent prices supplied to farmers. Expenditure on chalk and marl is based on information from the accounts statistics compiled by the Danish Research Institute of Food Economics.

#### Pesticides

Expenditure on pesticides is estimated on the basis of information from the accounts statistics compiled by the Danish Research Institute of Food Economics. Duties levied on pesticides are included in the expenditure on pesticides.

#### Energy

Expenditure on energy is estimated on the basis of information from the accounts statistics compiled by the Danish Research Institute of Food Economics. Expenditure comprises the total commercial consumption of electricity and fuels in agriculture and horticulture, including consumption of energy for the commercial use of private cars. Duties levied on energy are included in the expenditure on energy.

#### Repair and maintenance

Expenditure on repairs and maintenance is estimated on the basis of information from the accounts statistics compiled by the Danish Research Institute of Food Economics. Expenditure comprises farm buildings, production plants, machines and tools, as well as repair and maintenance soil improvement and land reclamation.

#### Other raw and auxiliary materials

Expenditure on raw and auxiliary materials is estimated on the basis of information from the accounts statistics compiled by the Danish Research Institute of Food Economics. Expenditure comprises pots, growth containers, growth media and carbon dioxide.

#### Agricultural services

Expenditure on agricultural service comprises expenditure on machine pools and rental of milk quotas. The statistics showing expenditure on machine pools are compiled on the basis information from the accounts statistics compiled by the Danish Research Institute of Food Economics, while the rental of milk quotas is based on information from the Danish Dairy Board.

#### Indirect bank charges

As the result of revised principles for the statistics on the Danish National Accounts, the part of bank receipts due to the difference between paid/unpaid interests and a reference as a production, is compiled. Consequently, the industries share of this is to be included as intermediate consumption. The statistics are indirect.

#### Services from other industries

Expenditure on services from other industries comprises insurance services, agricultures commercial share of costs on private cars, expenditure on packaging, duties on piped water, costs concerning plant growing, animal production, including expenditure on veterinary services and services provided by surveillance associations, as well as various costs. Except for the statistics on insurance services, the statistics showing expenditure on services from other industries are based on information from the accounts statistics compiled by the Danish Research Institute of Food Economics.

Insurance services are, in principle, estimated as the difference between paid gross premiums and paid-out insurances. The statistics are based on Statistics Denmark's information on premiums and payments of business-related insurances, as well as the statistics compiled by the Danish Research Institute of Food Economics.

#### *Operation subsidies, taxes and duties*

##### Subsidies on products and general products, taxes and duties

The statistics distinguish between subsidies on products and general operation subsidies, taxes and duties. In this way, it is possible to estimate income in the 3 income concepts: gross value added at producer prices, gross value added at basic prices and gross value added at factor cost. There is the following relationship between the income concepts: If we take gross value added at producer prices as starting point and subsidies on products are added and taxes and duties on products are deducted, gross value added at basis prices are obtained. If the general subsidies are added and general taxes and duties are deducted, gross value added at factor cost is obtained.

##### Definition of subsidies

In accordance with the general rules for which subsidies that are to be referred to gross value added at factor cost, such transfers from the government and the EU are included, whose purpose is to influence prices and/or make it possible for the production factors to achieve a reasonable remuneration. The characteristic feature of the included subsidies is that they are partly operation subsidies, unlike one-off subsidies, partly subsidies that are, as a main rule, paid out directly to the farmers.

Operation subsidies for businesses engaged in the processing of agricultural products, which is made after the products have left the production unit are excluded from the gross value added at factor cost. The same applies to investment subsidies and other one-off subsidies.

##### Subsidies on products and general products

Aid per hectare in the form of support for production of cereals, oil seeds and pulses and various livestock premiums are included in the operation subsidies for products. The general subsidies include, e.g farm set-aside programmes and subsidies on organic agriculture. From 2005, a number of subsidies have been replaced by what is known as the single payment scheme, which is a general subsidy.

##### Taxes and duties

In the statistics, taxes and duties on products are included in the value of sales products or in consumption. Consequently, they are set off in the calculation of gross domestic product at factor cost. For the years shown, the item only covers the supra-duty on milk. Duties on energy and duties on pesticides are contained in the respective costs. General taxes and duties comprise property taxes and motor vehicle weight duty.

##### Data sources

The statistics on operation subsidies are primarily based on abstracts of payments and other information from the Directorate for Food, Fisheries and Agri Business. The statistics on property taxes are based on information from the Central Customs and Tax Administration.

## 2 Time

### 2.1 Reference Period

The reference period is 31 December.

### 2.2 Date of Publication

The statistics are usually published in May.

### 2.3 Punctuality

The date of publication may vary up to a month.

### 2.4 Frequency

Annual.

## 3 Accuracy

### 3.1 Overall accuracy

The statistics are compiled on the basis of several different sources, each contributing with statistical inaccuracies. The overall accuracy, however, is considered to be reasonable.

### 3.2 Sources of inaccuracy

As the statistics are compiled on the basis of a wide range of agricultural statistics, a significant number of sources of statistical errors are present, including problems involved in providing fully representative reference periods. For a more precise statement of these, please refer to the declarations of contents for the statistics mentioned in item 0.6.

On the other hand, a wide range of information is exact. This applies to, e.g. information from dairies and slaughterhouses, which have a great impact on the statistics.

When the statistics are published, some figures for the most recent year are provisional and the statistical inaccuracy is thus greater than for previous years.

### 3.3 Measures on accuracy

Margins of statistical error are not calculated because the combination of several sources, including other statistics.

## 4 Comparability

### 4.1 Comparability over Time

Comparable statistics on Economic Accounts for Agriculture at annual level are available back to 1990. As a consequence of the implementation of the new methodology in the National Accounts, ESA 1995, a new compilation method for gross domestic product at factor cost in agriculture was implemented in 2000 in accordance with internationally agreed guidelines. In 2005, it was decided to include indirect bank charges as intermediate consumption.

The statistics back to 1990 have been revised in accordance with the new methodology, and are available from Eurostat StatBank place country-region Denmark.

Except for indirect bank charges and secondary receipts, gross domestic product at factor cost has also been calculated the basis of the new methodology for the calendar years 1973-89. However, the new calculations are subject to some statistical uncertainty.

Comparable statistics compiled in line with the previously applied methodology (before the revision in 2000) are available for the period 1975-98 for calendar years and for the period 1975/76-1998/99, covering operation years.

### 4.2 Comparability with other Statistics

Examples of other statistics in the area are the annual publications "Agricultural Account Statistics" and "Horticultural Accounts Statistics" compiled by the Danish Research Institute of Food Economics dealing with the economic results in agriculture at farm level.

### 4.3 Coherence between provisional and final statistics

Between the provisional and final statistics results may vary up to 3 percent.

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark) and in *Landbrug* (Agriculture) appearing in the series *Statistiske Efterretninger* (Statistical News) and in the annual publication *Agriculture*.

www.statbank.dk

## 5.2 Basic material: Storage and usability

Please contact the person responsible.

## 5.3 Documentation

The internationally agreed methodology for the EAA is described in the Eurostat publication: *Manual on the Economic Accounts for Agriculture and forestry EAA/EAf 97 (Rev. 1.1), Luxembourg 2000*.

A description of the implementation of the methodology in the statistics is published in *Statistical News - Agriculture* and in the publication *Agriculture*.

## 5.4 Other Information

There is no other available information.

## 6. Supplementary Documentation

There is no supplementary documentation for this declaration of content

# Industrial Accounts Statistics

This declaration was transferred to the Internet on 18 July 2005

## 0 Administrative Information about the Statistical Product

### 0.1 Name

Industrial accounts statistics.

### 0.2 Subject Area

General economic statistics

### 0.3 Responsible Authority, Office, Person, etc.

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### 0.4 Purpose and History

The purpose of Accounts statistics is to analyse the activity level and of the structure of the Danish business sector. This means that the statistics should be seen as a primary source of financial data for analytical studies of Danish business enterprises, including data required for the evaluation and conception of Government policies and decisions affecting the business community. Moreover, the accounts statistics are an essential input to the Danish national accounts statistics, and they provide the bulk of Denmark's contribution to EUROSTAT's structural business statistics at European level.

Until the late 1980's, Statistics Denmark produced questionnaire-based accounts statistics covering manufacturing industries, construction and the distributive trades. Apart from manufacturing, these statistics were discontinued after a new tax reporting system, called SLS-E, was introduced in 1986, whereby Danish business enterprises were ordered to submit to the tax authorities a standardised list of items from their accounts. These items were well suited for statistical purposes, but just a few years later the list of items was cut drastically and many firms were exempted from the system, so it became necessary to reintroduce statistical questionnaires and use the SLS-E data as a supplement only. Otherwise it would not have been possible to satisfy national and Eurostat requirements in the field of structural business statistics.

The new type of business accounts statistics started with the reference year 1994, covering construction and retail trade at the enterprise level. Manufacturing was added from 1995, when the former type of statistics for that sector was discontinued. At the establishment (i.e. workplace) level, regional statistics have been published since the reference year 1995, covering manufacturing, construction and retail trade.

Wholesale trade was added from 1998 and the remaining part of the private secondary and tertiary industries from 1999.

So results are published at the national level relating to enterprises (legal units) and from 1995 also at the regional level relating to workplaces.

### 0.5 Users and Application

Users: Public authorities, Eurostat, employers' and employees' federations, private firms, politicians, economists, journalists, students.

Applications: studies of business economics, regional finance studies, primary data for the Danish national accounts and for Eurostat's structural business statistics.



## 0.6 Sources

Questionnaires  
The Central Customs and Tax Administration (SLS-E data)  
The business register  
The Drugs Administration Agency (pharmacy accounts)

## 0.7 Legal Authority to Collect Data

The Act on Statistics Denmark (Act no. 599 of 22 June 2000), § 8 and 12.

## 0.8 Response burden

In 2004 the response burden imposed on business enterprises in reporting data for the accounts statistics was estimated at 14,943 hours or 5.6 DKK mio.

## 0.9 EU Regulation

Council Regulation no. 58/97 on Structural Business Statistics (SBS) requires the EU countries to submit to Eurostat information regarding business revenues, expenditures, value added, employment, wages and salaries, investment, etc. In Denmark the bulk of this information is obtained from the accounts statistics.

## 1 Contents

### 1.1 Description of Contents

The new statistics of business accounts cover construction and retail trade from the reference year 1994 at enterprise level (i.e. for legal units, such as corporations and sole traders) and from the reference year 1995 at establishment (workplace) level. The coverage was extended to manufacturing industries from 1995, to wholesale trade from 1998, and to the remaining part of the service industries from 1999.

The statistics are essentially aggregations of items of the annual accounts of business enterprises, notably items of the profit and loss account, the balance sheet and the statement of fixed assets. Thus, a wide range of subjects are covered, e.g. turnover, purchases, expenses, profits, assets, liabilities and investment. Results are compiled and published at both enterprise and establishment level, including distributions according to kind of activity, form of ownership, size group and region.

The data collected from all sources are combined in such a way that a complete set of accounting items is computed for each business enterprise and its component units (establishments) in the survey population. The resulting survey files can easily yield alternative breakdowns and tabulations, in addition to those published.

### 1.2 Statistical Concepts

#### *Enterprise*

Usually corresponding to the legal unit, e.g. limited-liability corporations, sole traders, partnerships, etc.  
In a few cases several legal units which are run as one entity are gathered into one enterprise.

#### *Establishment*

An enterprise or part of an enterprise, that is situated in a single location and produces one -- or mainly one -- sort of goods and services.

#### *Kind of activity*

This concept, which is sometimes termed branch or industry, refers to the 6-digit code numbers found in the Danish activity classification DB93 until 2002, and in DB03 from 2003. The activity classification is based on the European NACE nomenclature.

#### *Form of ownership*

Enterprises may be distinguished according to legal types, such as sole traders, partnerships, limited-liability corporations, government bodies, etc.

#### *Size groups*

In publications the size groups mostly refer to employment in terms of full-time equivalent persons. The most frequently used categories are 0-9, 10-19, 20-99 and 100+ employed persons (including working proprietors).

#### *Regions*

The regions used when publishing the accounts statistics at establishment level are the Danish counties ("amter").

#### *Number of employees*

Persons on the payroll in full-time equivalent units.

#### *Number of persons employed*

For corporations equal to number of employees. For sole traders etc. are added an estimated number of owners namely +1 for single proprietors/self employed and +2 for partnerships.

*Accounting item:*

These are the items derived from the financial accounts or bookkeeping systems of the business enterprises, such as turnover, cost of goods sold, expense items, assets, liabilities and capital expenditure.

Clarification of some of the used accounts items and concepts:

*Turnover*

Turnover represents the net sales. Included are capitalised work performed by the firm for own purposes and all charges (transport, packaging, etc.) passed on to the customer. Excluded are reduction in prices, rebates, discounts, VAT and excise duties. Income classified as other operating income, financial income and extraordinary income in company accounts is also excluded from turnover.

*Other operating income*

Secondary income.

*Cost of goods consumed*

Purchases of goods and energy plus/minus changes in stocks.

*Value added*

Turnover plus Other operating income minus consumption of goods and services.

*Financial receipts*

Receipts from interest, dividends, income from participating interests, profit due to appreciation and on exchanges.

*Financial expenses*

Interest payable and similar charges, depreciation etc. on financial current or fixed assets.

*Fixed assets*

Part of the capital of the enterprise which are meant to be kept e.g. land, buildings, machinery, equipment, patent, shares, and bonds.

*Current assets*

Stocks, debts receivable, cash.

*Capital and reserves*

The owners part of the capital of the enterprise. Is calculated as Total assets minus (Provisions for liabilities and charges plus Debts).

*Provisions for liabilities and charges*

Obligations where the exact amount or due date is not known with certainty, e.g. deferred taxation.

*Short-term debts*

Debts payable within 1 year.

*Long-term debts*

Debts payable later than 1 year.

*Investment*

Increase and decrease of assets. Increase (acquisitions) is stated at book value before any adjustments. Assets acquired through financial leasing are included. Decrease (disposals) is stated at selling price (if not known then the written-down value).

*Value added (percent)*

Value added in percent of Turnover and Other operating income.

*Gross profit ratio*

Turnover minus Cost of goods consumed minus Cost of subcontractors and other work done by others on your firm's materials measured in percent of Turnover.

*Net profit ratio*

Profit or loss before financial and extraordinary items measured in percent of Turnover and Other operating income.

*Return on equity*

Profit or loss for the financial year after Corporation tax measured in percent of the average of the Capital and reserves during the year.

*Proprietary ratio*

Capital and reserves measured in percent of Total liabilities.

### *Average*

Is calculated for each industry (or size group etc.) using the accumulated figures for the relevant accounting items. The figures of large enterprises will weigh more than the figures of small enterprises.

### *Median*

The enterprises are sorted according to their size of the relevant figure or ratio. The median is the figure or ratio of the enterprise which are placed exactly in the middle of this sequence. The figures of large enterprise will not weigh more than the figures of small enterprises.

## **2 Time**

### **2.1 Reference Period**

The accounts statistics for a given year,  $t$ , relate to annual accounts ending in the period from 1 May of year  $t$  to 30 April of year  $t+1$ .

### **2.2 Date of Publication**

The statistics are scheduled to appear within 12 months after the end of the reference year (30 April).

### **2.3 Punctuality**

The publications usually have been available about 14 months after the end of the reference year.

### **2.4 Frequency**

Annual statistics, both at enterprise level and at establishment level (regional data).

## **3 Accuracy**

### **3.1 Overall accuracy**

The accounts statistics are a reliable indicator of the activity level and of the structure of the Danish business sector. The highest data quality is achieved at the enterprise level, primarily because the firms prepare their annual accounts at that level. But also at the establishment level the published results for major activity groups and for counties are deemed to be reliable in spite of some elements of uncertainty.

Remarks on data sources:

*A. Direct surveying.* The most thorough coverage is extended to the firms that are selected for direct surveying. They are given the choice of either filling in a lengthy questionnaire or submitting their annual accounts plus detailed specifications. The questionnaire is modelled on the list of items set out in the Danish annual accounts legislation, so as to facilitate responding. The data obtained by direct surveying are keyed into a data entry system which comprises error detection and verification procedures. Thus, the data are checked for accounting inconsistencies, and warning messages are written out if significant deviations are found when comparing with last year's data or with figures for firms in the same stratum (form of ownership / activity / size group). Frequently the respondents are contacted for clarification. The resulting data for the direct-surveyed firms are regarded as highly reliable. In terms of turnover these firms (including those of B below) accounted for 69 percent of the total for 2003.

*B. Pharmacies.* All Danish pharmacies must submit a standardised set of accounts to the Drugs Administration, which sends a file containing the audited accounts to Statistics Denmark. On some points the pharmacy accounts differ from the items of Statistics Denmark's questionnaire, but it is possible to estimate the missing data, so the overall quality is high.

*C. The SLS-E system* of the Danish tax authorities does not comprise so many items as Statistics Denmark's questionnaire, but the quality of the data is regarded as high, because they are used for individual tax assessment. By stratified imputation the data aggregates of the SLS-E system are distributed among the more detailed items, and in the opinion of Statistics Denmark the resulting item values are reasonably reliable for profit and loss account as well as balance sheet. Unfortunately, the SLS-E system does not include information about investment (spending on fixed capital), so this is a weak point. The firms contributed by the SLS-E system accounted for 19 percent of total turnover in the 2003 survey.

*D. The rest.* Many (especially small) firms are not covered by the sources A to C, so the available information is limited. Stratified imputation based on employment size groups is used to fill the gaps, but this method yields results with large margins of error. However, the firms of the "rest" population accounted for only 12 percent of turnover in the 2003 survey, so the negative effect on the overall quality of the accounts statistics is limited.

### **3.2 Sources of inaccuracy**

The response rate for the sample population for reference year 2004 was 98 per cent.

Some items of the statistical questionnaire go beyond the level of disclosure prescribed by the annual accounts legislation. A case in point is the question concerning expenditure on fuel and energy. In those cases it is more difficult or more trouble for the

firms to provide the requested information, and it is likely that some underreporting occurs.

Investment is another subject which is not itemised in the annual accounts, but information on the subject can be deduced from a separate table in the notes to the accounts where acquisitions and disposals of fixed assets are specified. So investment too could be underreported to some extent by those respondents who fill in and return the questionnaires. Moreover, no investment information is available for the firms of the SLS-E and the "rest" groups, which means that for these firms the investment estimates are not entirely reliable.

The accounts statistics are less reliable at the establishment level than at the enterprise level because the allocation procedures are based on assumptions. But also at the establishment level the published results for major activity groups and for counties are deemed to be reliable.

### **3.3 Measures on accuracy**

Starting with the reference year 1999, error bands are indicated with a 95 percent probability in table 2 of the annual national publication at enterprise level.

## **4 Comparability**

### **4.1 Comparability over Time**

At enterprise level, comparable statistics (time series) are available from 1994 for construction and retail trade, from 1995 for manufacturing industries, from 1998 for wholesale trade, and from 1999 for the remaining part of the private secondary and tertiary industries.

Starting with the reference year 2000 the estimation method has been changed for enterprises with no more than 1 employee (full-time equivalence) and from which there is no information from questionnaire or the SLS-E system. This change in estimation method is considered to make the data for these enterprises more reliable, but makes it more difficult to compare with previous years, in particular in sectors where this type of enterprise makes up a substantial part.

Starting with the reference year 2002 The Danish Law on Annual Reports was revised. Among the major changes can be mentioned:

- a) Intangibles and financial fixed assets and also assets acquired by financial leasing must to a higher extent than earlier be included in the balance sheet, and as a principal rule it must be valued at market prices, whereas earlier it could alternatively be valued at historical cost prices or the like.
- b) Work in progress, not for own account (contract work), is moved from current stocks to debts receivable.

The previous type of accounts statistics for manufacturing industries, which ended with the year 1994, covered all manufacturing enterprises with 20 or more employees. The new type of accounts statistics covers all enterprises irrespective of size. Consequently, the two types of statistics are not directly comparable.

At establishment level, comparable statistics are available from 1995 for construction, retail trade and manufacturing, from 1998 for wholesale trade, and from 1999 for the remaining part of the private secondary and tertiary industries.

The accounts statistics do not cover inactive businesses and primarily non-commercial enterprises. The threshold limit regarding the level of economic activity required, was raised substantially with effect from the reference year 1999. Consequently, the number of enterprises and establishments (workplaces) dropped considerably and the number of employed people dropped slightly. The effect on the economic variables relating to the accounting items was minimal.

### **4.2 Comparability with other Statistics**

The new type of accounts statistics is largely comparable with, and supplemented by, the SLS-E based accounts statistics which were discontinued after 1998. Statistics Denmark publishes statistics on various subjects related to business accounts, notably VAT-related turnover, manufacturers' sales of commodities, and short-term statistics of order books and sales. However, these statistics are not directly comparable with the accounts statistics, because of differences in units, coverage or concepts.

### **4.3 Coherence between provisional and final statistics**

Only final figures are published.

## **5 Accessibility**

### **5.1 Forms of dissemination**

The statistics are first published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark) and subsequently with more details in *Generel erhvervsstatistik* (General economic statistics) appearing in the series *Statistiske Efterretninger* (Statistical News). Summaries are given in the *Statistical Yearbook* and in the *Statistical Ten-Year Review*. In 2001 the new accounts statistics became available online from Statbank Denmark ([www.statistikbanken.dk](http://www.statistikbanken.dk)), which now holds data corresponding to the tables of *Nyt fra Danmarks Statistik* and *Generel erhvervsstatistik*.

## 5.2 Basic material: Storage and usability

The survey data are organized in annual files comprising a complete set of accounting items for every single business enterprise and its component units (establishments). The survey files can easily yield alternative breakdowns and tabulations, in addition to those published. There are also some files ("sum files") containing aggregations for activities, kinds of ownership, size groups and regions.

## 5.3 Documentation

A description of concepts and methods is given each year in the article published in the series Statistical News.

## 5.4 Other Information

For more information (in Danish) regarding the questionnaire, accounting concepts, etc., see: Regnskabsstatistik 2004 (*General erhvervsstatistik 2006:10*) (Accounts statistics 2004, General economic statistics 2006:10) and Regionalfordelt regnskabsstatistik 2004 (*General erhvervsstatistik 2006:11*). (Accounts statistics by region 2004, General economic statistics 2006:11).

## 6. Supplementary documentation

For this declaration of content no supplementary documentation is available

# **Supplemental Accounts Statistics for Shipping**

**This declaration was transferred to the Internet on 25 February 2005**

## 0 Administrative Information about the Statistical Product

### 0.1 Name

Supplemental Accounts Statistics for Shipping.

### 0.2 Subject Area

General economic statistics

### 0.3 Responsible Authority, Office, Person, etc.

Statistics Denmark, Business Structure Division  
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### 0.4 Purpose and History

The purpose of the statistics is to show the level of and development in gross earnings by shipping businesses from shipping activities. The statistics have been published since 1967.

### 0.5 Users and Application

Users of the statistics are trade associations, banks, politicians, public authorities, international organisations, private business enterprises.

Note that some of the collected data are contained in the Balance of Payments Statistics.

### 0.6 Sources

The statistics are compiled from data collected via questionnaires.

The Central Business Register and other sources are used in updating the sample survey of business enterprises.

### 0.7 Legal Authority to Collect Data

Data is collected in accordance with the Act on Statistics Denmark (Lov om Danmarks Statistik), cf. Order no. 599 of 22 June 2000, § 8 and 12.

### 0.8 Response burden

In 2003 the response burden was 449 hours analogous to 145000 kroner.

### 0.9 EU Regulation

The Rest of the world account of the national accounts, which is derived from the balance of payments, is prepared in accordance with Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community (ENS 95) (OJ L 310 30.11.96, p. 1).

## 1 Contents

### 1.1 Description of Contents

The purpose of the statistics is to show the level of and development in gross earnings by shipping businesses from shipping activities. The most important variables are: entered gross freight, time charter earnings and other earnings from shipping activities, operating costs and administrative costs along with gross earnings.

### 1.2 Statistical Concepts

#### *Population*

The statistics cover privately owned shipping businesses with a minimum gross tonnage of 250 GT.

#### *Definitions:*

*Gross tonnage* is an abstract concept that expresses the volume of all covered holds in the ship.

*Time charter earnings* are earnings stemming from the leasing of ships.

*Earnings from passenger transport* include ticket earnings and the transfer of motor vehicles as well as earnings from restaurants, kiosk sales, etc.

*Other earnings* include earnings from insurance, salvage operations, towing, the forwarding of goods, etc., so long as the shipping firm includes such earnings in its annual accounts. Furthermore, earnings are included on a net basis (i.e. gross earnings less costs) from offshore activities related to searching activities.

*Operating costs* are stated exclusive of VAT, similarly to the calculated earnings. Bonuses, discounts, etc. are also deducted.

*Direct costs* include costs from loading/unloading and expenses in the form of harbour, customs and vessel dues. Also included are goods consumed in own restaurants and shops on board.

*Salaries, etc. for staff on board* comprise salaries as well as holiday allowances, subsistence allowances and bonuses.

*Other staff expenses* cover, among other things, statutory or other contributions and payments to social funds, pensions, the Labour Market Supplementary Pension Fund, medical and other health programmes.

*Time charter salaries* are expenses for the leasing of tonnage.

*Other operational expenses* consist of, among other things, insurance, repair and maintenance costs, certain commissions and forwarding of goods.

*Administration costs* consist of salaries and other staff-related expenses for the administrative staff, such as rent (paid or estimated), office expenses, marketing, salaries to corresponding ship owner, lawyers and accountants.

*Gross earnings* are calculated as gross earnings less operational and administration costs.

## 2 Time

### 2.1 Reference Period

Accounting year, which for most shipping firms is the calendar year.

### 2.2 Date of Publication

The statistics are published annually approx. 300 days after new year in *Statistical News* in the series *Samfærdsel og turisme* (from January 1999 onwards: *Transport*).

### 2.3 Punctuality

Publication is normally according to schedule.

### 2.4 Frequency

The statistics are published annually.

## 3 Accuracy

### 3.1 Overall accuracy

Figures on the statistical reliability are not estimated.

The enterprises are obliged to report data according to the Act on Statistics Denmark and the response rate is very close to 100 pct.

### 3.2 Sources of inaccuracy

Inaccuracies can occur if respondents fail to submit their data and if the population in our survey does not correspond to the actual population.

### 3.3 Measures on accuracy

Figures on statistical errors are not available.

## 4 Comparability

### 4.1 Comparability over Time

For the total level of the statistic it is possible to compare earlier years statements.

### 4.2 Comparability with other Statistics

Elements in the statistics will be found also in the Balance of Payments Statistics.

### 4.3 Coherence between provisional and final statistics

Only final figures are published.

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics appear in *Nyt fra Danmarks Statistik* (News from Statistics Denmark), in *Generel erhvervsstatistik* (Business Structure) appearing in the series *Statistiske Efterretninger* (Statistical News).

Statbank Denmark ([www.statistikbanken.dk](http://www.statistikbanken.dk)): RED2

### 5.2 Basic material: Storage and usability

The selected data for every shipping enterprise are stored electronically and go back to 1990.

### 5.3 Documentation

A description of concepts and methods is given in *Statistiske Efterretninger*, *Generel Erhvervsstatistik*, 2004 nr. 21, with the title *Supplerende regnskabsstatistik for rederier 2003*.

### 5.4 Other Information

Other information is not available.

## 6. Supplementary documentation

No supplementary documentation is available

## Accounting statistics for public corporations

This declaration was transferred to the Internet on 25 February 2005

## 0 Administrative Information about the Statistical Product

### 0.1 Name

The public sector finances

### 0.2 Subject Area

Public Finance

### 0.3 Responsible Authority, Office, Person, etc.

Public finance.

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### 0.4 Purpose and History

The purpose of the public sector finances is partly to show those activities, which are owned or controlled by the general government and partly to illustrate the public area as an economic unit called *the public sector*. Consequently, the statistics also contain figures concerning the general government, which are used in producing statistical information about all the activities that fall within the public sector.

Statistics Denmark began publishing the statistics in March 1998 when they contained figures covering a five-year period (1992-1996).

#### **0.5 Users and Application**

Ministries of economic affairs, organizations, companies and members of the public.

#### **0.6 Sources**

Accounts of central and local governments. Annual accounting reports from approximately 250 enterprises/companies and accounting reports from two industry associations (Danske Energiselskabers Forening and Danske Varmeværkeres Forening).

#### **0.7 Legal Authority to Collect Data**

Subsection 1 of section 8 of the Act on Statistics Denmark.

#### **0.8 Response burden**

Large accounting questionnaire: 180 minutes a year.

Small accounting questionnaire: 90 minutes a year.

#### **0.9 EU Regulation**

EU: Rf2223/1996

EU: Rf58/1997

### **1 Contents**

#### **1.1 Description of Contents**

The statistics illustrate the institutional distribution of activities carried out by the public corporations, giving total figures as well as figures divided into industrial groups. Furthermore, the statistics contain figures for the public sector and all public corporations and quasi-corporations. Specified figures for production, value added, gross operating surplus and gross domestic product at factor cost are included in the statistics.

#### **1.2 Statistical Concepts**

Units and the population: All public corporations and quasi-corporations.

Variables:

Definition of the gross fixed capital formation:

Acquisition of new fixed assets

+ acquisition of existing buildings, net

= gross fixed capital formation

Definition of the gross factor income:

Production

- intermediate consumption

= gross value added

Gross value added

+ taxes on production, net

= gross factor income

Definition of the net concept:

Gross

- consumption of fixed capital

= net

Danish Industrial Classifications:

Industries are classified according to the Danish Industrial Classification 2003 and are given a six-digit code (DB03-code). Some of the DB03 groups are combined. This is carried out for reasons of confidentiality because some DB03 groups contain very few public corporations:

- Agriculture, fishing and quarrying together with manufacturing: 01.11.10-14.50.00, 15.11.10-37.20.00.
- Electricity, gas and water supply: 40.11.00-41.00.00.
- Construction together with wholesale and retail trade; hotels, restaurants: 45.11.00-45.50.00, 50.10.10-55.52.00.
- Transport, storage and communication: 60.10.00-64.20.20.
- Financial intermediation, business activities together with public and personal services: 65.11.00-95.00.00, 99.00.00.



## 2 Time

### 2.1 Reference Period

The figures relate to the financial year. If the financial year is different from the calendar year; the calendar year with the longest accounting period is selected as the financial year.

### 2.2 Date of Publication

The statistics are published yearly at the end of the year, following the accounting period.

### 2.3 Punctuality

The statistics are usually published without delay in relation to the scheduled date.

### 2.4 Frequency

Yearly publication.

## 3 Accuracy

### 3.1 Overall accuracy

The overall accuracy is considered high.

### 3.2 Sources of inaccuracy

Full coverage of all industries is obtained by conducting a yearly check of the population in relation to a variety of sources. Accounting information is obtained from central and local government accounts and furthermore from questionnaires. Some accounting information is adjusted to the terminology used in the national accounts system and therefore deviates from normal accounting conventions. Furthermore, public corporations may use different methods of accounting. Accounting data entered wrongly are also a source of error, which is minimized by comparison with information from the previous year.

### 3.3 Measures on accuracy

The statistical uncertainty is not calculated.

## 4 Comparability

### 4.1 Comparability over Time

As compilation of the statistics has started recently, there have been no changes in terminology or methods and the statistics are therefore comparable over time.

### 4.2 Comparability with other Statistics

The statistics are comparable with statistics for the general government.

### 4.3 Coherence between provisional and final statistics

The figures for the latest two years are provisional, but the difference between provisional and final figures are little or nonexistent.

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark) and in *Offentlige finanser* (Public finance) appearing in the series *Statistiske Efterretninger* (Statistical News). Statistics also appear in the annual publication *Statistisk Tiårsoversigt* (Statistical Ten-Year Review).

### 5.2 Basic material: Storage and usability

All information is stored in the DIOR database.

### 5.3 Documentation

Further documentation is given in the series Statistical News: "Den offentlige sektors finanser" (Public sector finance).

### 5.4 Other Information

Other information is not available.

## 6. Supplementary documentation

No supplementary documentation is available

# **General government**

This declaration was transferred to the Internet on 28 February 2005

## **0 Administrative Information about the Statistical Product**

### **0.1 Name**

General government finances

### **0.2 Subject Area**

Public Finance

### **0.3 Responsible Authority, Office, Person, etc.**

Finance and Prices

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### **0.4 Purpose and History**

The purpose of *General government finances* is to analyse the economic activities of general government and to analyse the distribution of tasks and burden between sub-sectors of general government and finally to show the interaction between this sector and the rest of the economy. A national accounts format can be extracted from the statistics. The statistics were produced for the first time in 1975. Data are available from 1971 and onward. From 1971 to 1975 the annual data covered the period from 1 April to 30 March. From 1976 and onward the period was changed to calendar year.

### **0.5 Users and Application**

Ministries, political parties, non-governmental organizations, local government, public and private enterprises, and members of the general public.

A growing activity of services has taken place partly in the form of individual assignments and partly in the form of subscriptions where customers receive detailed tables when new statistics are released.

### **0.6 Sources**

Final accounts of central government, municipalities, counties and social security funds. Accounts data for public quasi institutions are still not available in May. The October version of the accounts are available for year 19xx-2, while for year 19xx-1 the data are still enumerated.

### **0.7 Legal Authority to Collect Data**

Section 6 of the Act on Statistics Denmark.

### **0.8 Response burden**

There is no response burden as the data are collected via accounts of central government, counties, municipalities and social security funds.

### **0.9 EU Regulation**

EU: Regulation of the European Parliament and the Council 2223/1996

EU: Regulation of the European Parliament and the Council 3605/1993

EU: Commission Regulation 2204/1998

## **1 Contents**

### **1.1 Description of Contents**

The statistics monitor current and capital expenditure/revenue for the general government. Net lending / net borrowing of the general government are shown. Expenditure /revenue items are shown by type of transaction and by type of function. Taxes, subsidies and transfers to households are sub-divided by type.

### **1.2 Statistical Concepts**

Units and populations:

The statistics cover all units belonging to the General Government thereby covering all units producing non-market services for collective consumption/redistribution of income and wealth.

Variable:

Revenue:

Compensation of employees

Includes all payments by producers of wages and salaries to their employees, in kind as well as in cash, and employees and

employers contributions to social security schemes, including pension contributions.

#### Gross fixed capital formation

Calculated as expenditure on construction of new buildings and civil engineering projects and purchases of transport equipment, machines, software, etc.

#### Consumption of fixed capital

Is also called depreciations or reinvestments and is an estimate of the normal wear and tear of fixed capital goods (including roads, bridges, etc.) in the general government sector.

#### Intermediate consumption

Is defined as purchases of goods and services for current consumption, including rentals for offices and buildings, etc., insurance premiums and indirect taxes and duties paid by the general government. Furthermore, some acquisitions of durable goods by the military authorities (weapon systems) will continue to be considered intermediate consumption.

#### Non-financial capital accumulation

Includes actual capital activities for the general government sector.

Capital accumulation is calculated as follows:

Acquisition of new fixed assets

+ Acquisition of existing buildings, net

= Acquisition of gross investments

Gross fixed capital formation

+ Changes in inventory

+ Acquisition of land and intangible assets, net

= Non-financial capital accumulation

#### Capital transfers

Affect either the assets of the grantor or recipient. Examples are plants and investment subsidies, certain damages, loans written down and similar services, which are frequently non-recurrent.

#### Acquisition of existing buildings, net

is defined as purchases of real property, where the existing buildings are the most important factor in terms of value, less corresponding sales.

#### Acquisition of land and intangible assets, net

Comprises purchases of real property where the land is considered the most important factor, less sales.

#### Changes in inventory

Consist primarily of purchases of goods for intervention stocks and strategic stocks, less sales of these stocks.

#### Current transfers

Have an effect on current disposable income. These transfers primarily consist of transfers to households and are divided into social transfers, e.g. old-age pension and early retirement pension, civil servants' earned pension, unemployment benefit and early retirement pay, social benefit, benefits during sickness or in connection with childbirth, family/young persons' allowances etc., housing benefit and rent subsidies. Furthermore, income transfers include, for example, education benefit. To this is added transfer payments to private institutions, Faroe Islands and Greenland, the EU and rest of the world.

#### General government final consumption expenditure

Final consumption expenditure is obtained in the following way:

Compensation of employees + consumption of fixed capital

= Gross domestic product at factor cost

Gross domestic product at factor cost + intermediate consumption + social transfers in kind

= Output

Output sales of goods and services

= General government final consumption expenditure.

The general government final consumption expenditure or consumption comprises actual operation activities carried out for the general government sector. More than half of the general government final consumption expenditure can be broken down by specific persons. The remainder is government collective-consumption expenditure.

#### Interest payments

Comprise face or nominal interest, for example, distributed losses on issue prices and expenditure on rentals for land and intangible assets. Losses on issue prices are entered (written off) in line with instalments on loans.

Sales of goods and services Comprise sales of the total output of goods and services. To qualify as sales of goods and services,

there must be a remuneration in return and a certain degree of free choice on the part of the buyer in connection with the purchase.

#### Social transfers in kind

denote, e.g. health insurance services and aids which the general government buys on the market and allocate to households in the form of full or part payments to producers for supplying specific products to households.

#### Subsidies

are defined as unilateral transfers to public or private enterprises and cover a wide range of transfers. EU agricultural subsidies are an example of product subsidies. Other production subsidies are, e.g. grants for social housing, and enterprise and rehabilitation allowances, etc. Finally, subsidies to cover losses of public quasi corporations are classified as product subsidies.

#### Revenue items:

##### Other current transfers

originate from other domestic sectors, the EU and rest of the world.

#### Gross operating surplus and mixed income

constitute the part of gross domestic product at factor cost which goes to the general government sector. Gross operating surplus and mixed income are by definition identical to consumption of fixed capital of the general government as output of the general government is calculated as costs.

#### Voluntary social security contributions

entitle the depositor to public social security benefits. As contributions are voluntary no taxes or duties are imposed. The voluntary scheme covers contributions to health and unemployment insurance to the Danish Labour Market Supplementary Pension Scheme, ATP, mostly from self-employed persons, who have voluntarily joined the scheme.

#### Imputed contributions to social security schemes

are estimated contributions paid by civil servants, etc. These contributions correspond to the value for earned entitlement to retirement, which is added to their wages and salaries. In practice, the contribution is calculated as paid out pension for current pension schemes.

#### Economic rent, etc.

Comprises rentals, licence fees, etc.

#### Interest and dividends

Also comprise dividends and realized capital gains less any losses, in addition to the nominal rate of interest.

#### Taxes and duties

Are defined as compulsory transfers to the general government sector without any link between payment and acquisition of services. In the general statistics, taxes and duties are, for example, broken down by type of tax and by national accounts group. The distribution of national accounts reflects the way different types of taxes and duties affect the economy as a whole. Taxes and duties are in national accounts divided into production and import taxes, current income and property taxes, capital taxes and compulsory social security contributions. In classifying taxes and duties according to type, only the tax base is taken into account.

#### Withdrawals of income from quasi enterprises

Are calculated for the public quasi-enterprises, for example The Danish State Railways. When calculating profits, depreciations are included as current expenditure. The share of the profit and loss account of Danmarks Nationalbank is also included.

#### Statistical measurements:

##### Consolidation:

This statistical procedure makes sure that the flows between and inside the sub-sectors are balanced and excluded. Transfers (for example, block grants and reimbursements) and real flows (for example, purchases made between the institutions) are balanced and excluded. There will typically be inconsistencies in the primary statistical data. In the statistical system for public finance, it is assumed that the source of this problem is due to the circumstance that the the same transactions are entered into two different accounting periods. These are always balanced with figures from the local government.

#### Classification by units:

The general government sector comprises authorities and institutions, which are primarily engaged in producing non-market (public) services for collective consumption and/or redistributing revenue and wealth. Public services or non-market services are services, which are either actively controlled by public authorities or are made available to the general public, free of charge. In other words, the authorities or institutions producing non-market services must have other sources of revenue than revenue from market sales, i.e. that the revenue in the form of general government transfers, etc. must account for more than 50 pct. of total revenue.

The majority of authorities and institutions, which produce public services are formally public. That is, they are integrated (incorporated) into the accounts of central, regional and local government. They are called integrated public institutions.

Some public institutions are not integrated, but keep their own accounts, for example, the national church and the social security funds. These institutions are called non-integrated public institution.

Some institutions producing public services are formally private and they keep their own accounts. The reason why these institutions are incorporated into the general government sector is that they are primarily financed and controlled by the public authorities. Examples of this are private schools, private hospitals, etc., they are formally private institutions but in reality public institutions. In the national accounts these institutions are called public quasi institutions.

Classification by transactions:

Expenditure and revenue by type of transaction

The purpose of expenditure and revenue by type of transactions is to classify the transactions in the general government sector according to the influence on the economy.

The economies are influenced respectively by actual transactions and by income and redistributed transactions. Actual transactions aim at public production, while income and redistributed transactions are carried out to finance actual transactions or to redistribute incomes or wealth.

Expenditure by function

Expenditure by function illustrates the purpose of public activities, i.e. how general government expenditure is used..

Principal public services

This main group consists of activities, which are considered public, i.e. they cannot be performed by private individuals or enterprises. They comprise, for example, legislative assemblies, principal executive bodies, principal monetary and fiscal policy activities and organs, general public-sector personnel policy, centralized sales and purchasing activities, international relations and police and defence activities.

Social and health services

This main group consists of different services oriented to the individual that are offered to households and private individuals. Services comprise education, national health services, social security, different welfare services, housing, cultural, recreational and religious services.

Economic services

This main group covers public activities connected to public-sector control and regulation of industries. The main group comprises activities which promote economic development, affect regional balances, create a better business environment and improve job prospects.

Expenditure by unclassified functions

This group contains especially interest payments and other costs related to general government debt. Interest payments on debt reflect that some former defrayed costs are financed by loans and not by current taxes. These costs are not related to the current activities, and consequently they cannot therefore unambiguously be classified to a special function.

Furthermore, the classification of subsidies, taxes and duties and transfers are published.

## **2 Time**

### **2.1 Reference Period**

The statistics contain provisional accounts data for the previous financial year and already published data for the previous financial years, which have been subjected to additional processing. The statistics thus contain both provisional and final data.

### **2.2 Date of Publication**

The statistics are published biannually, at the beginning of June and at the beginning of November one year after the end of the financial year in question.

### **2.3 Punctuality**

The statistics are usually published without delay in relation to the scheduled date.

### **2.4 Frequency**

Yearly publication.

## **3 Accuracy**

### **3.1 Overall accuracy**

The statistical accuracy is generally very high.

### **3.2 Sources of inaccuracy**

Misclassification due to insufficient information about the contents of a given account.

In provisional accounts, the government's value added tax expenses are divided at the level of accounting items.

In both the May version and the October version provisional tax-estimates are used.

Subsidy accounts can be classified with some inaccuracy because it is not always possible to define the recipient of the subsidy.

Reserves and budgets adjustments:

This extra paragraph covers both earmarked and widely defined reserves. The widely defined reserves are often considerable amounts and are difficult to define. Whenever possible, Statistics Denmark collects supplementary information on these reserves.

An estimation of tax revenue charged by General Government is used

### **3.3 Measures on accuracy**

The statistical uncertainty is not calculated.

## **4 Comparability**

### **4.1 Comparability over Time**

Data are comparable according to ESA95 from 1988 and onward.

### **4.2 Comparability with other Statistics**

There is complete comparability with other statistics in the national accounts if they comply with international standards, i.e. ESA95 and SNA93.

### **4.3 Coherence between provisional and final statistics**

The statistics for the general government are made in a number of preliminary versions. Approximately three years after the end of a fiscal year the statistics are declared final.

The statistics for the general government are made in the following versions before declared final:

The first presentation of accounts for a fiscal year is the so-called February-version, which is published at the beginning of March t+1. The sources are the preliminary public accounts (up to and including account period 12), budgets of Local Government adjusted by means of summarily account information's and preliminary accounts and budgets of social security funds.

The May-version is published at the beginning of June t+1. In this version the sources are much better. The public accounts from the general accounting office are now final. The Local Government accounts and that part of the accounts of social security funds that includes ATP (the Danish Labour Market Supplementary Pension Scheme) and LG (the Employees' Guarantee Fund) are now available. The taxes are no longer based on estimates, but based on primary data.

In the beginning of November t+1 the October-version is published. The characteristic of the October-version is that the existing data material is prepared thoroughly to expose possible insufficiencies and wrong interpretations in the adaptation of the national accounts. Furthermore are the accounts for social security funds (the unemployment insurance funds) now available. For the public quasi corporations there is now access to real accounts. The sources on the tax area are improved especially for income taxes, excise duties and VAT.

In the beginning of November t+2 the October-version is almost at its final form. In the beginning of November t+3 the last chances are added and the version can now be declared as final.

## **5 Accessibility**

### **5.1 Forms of dissemination**

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark) and in *Offentlige finanser* (Public finance) appearing in the series *Statistiske Efterretninger* (Statistical News).  
Yearly publications: *Statistical Yearbook* and *Statistical Ten-Year Review*.

### **5.2 Basic material: Storage and usability**

Data is stored in an internal data base, the DIOR database for public finance.

### **5.3 Documentation**

Further documentation can be found in the series *Statistical News* and in SU46 for documentation of the main revision.

### **5.4 Other Information**

Other information is not available.

## 6. Supplementary documentation

No supplementary documentation is available

## 11.1 Statistical surveys and other data sources used for the income approach

The main source used for compiling GDP from the income approach is the Working Time Accounts.

### Annual Working Time Account

This declaration was transferred to the Internet on 22 August 2006

#### 0 Administrative Information about the Statistical Product

##### 0.1 Name

The Annual Working Time Account

##### 0.2 Subject Area

Labour market

##### 0.3 Responsible Authority, Office, Person, etc.

Labour Market

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##### 0.4 Purpose and History

The purpose of establishing the Working Time Account (WTA) is to compile time series on hours worked. Furthermore, it is also intended to compile data on earnings and employment for the national accounts statistics, adopting the definitions of work, earnings and employment as applied in the national accounts. At the moment, the statistics include data on sex, industry, public/private and socio-economic status (self-employed, assisting spouse or employee).

The system for the Working Time Account is the result of a 3-year project established in Statistics Denmark in 1995 with grants by The European Social Fund. The purpose of the project was to improve the current statistical description of the Danish labour market. The background to the WTA is that there has been a considerable expansion in the number of statistics covering the labour market and the fact that the figures from different statistics are not immediately comparable. The project work has been centred on developing statistical systems integrating already existing labour market statistics. In December 1998 the project ended with the publication of a report: "Integrated Labour Market Statistics - the Labour Market Account and the Working Time Account 1995-97" ("Integreret arbejdsmarkedsstatistik - Arbejdsmarkedsregnskab og Arbejdstidsregnskab 1995-97") in which 2 new statistical systems were presented. In 1999, the WTA were presented by Statistics Denmark with the inclusion of annual as well as quarterly statistics.

Since the summer of 2002, the entire system of the Working Time Accounts has been subject two major revisions. (For a detailed description of revisions see annex 1 [www.dst.dk/extranet/atr/atr\\_bilag\\_en.pdf](http://www.dst.dk/extranet/atr/atr_bilag_en.pdf)).

The generally revised figures were published on 28 February 2006 in *Statistical News: Labour Market 2006:6*.

Figures for 1995-2005\* was published 22 August 2006 in *Statistical News: Labour Market 2006:23*.

##### 0.5 Users and Application

Among users are politicians, officials, researchers and others interested in the development of the Danish labour market. The areas of application are mainly the national accounts, economic models, economic government departments and labour market organizations.

##### 0.6 Sources

In deciding which data sources to apply in compiling the Working Time Accounts (WTA), attention is centred on the major advantages of the individual statistics. For example, register-based data are used to ensure complete coverage in the calculation of employment and the number of jobs. Information from the wage and salary system of the business enterprises is used to obtain more specific data on the distribution of hours between the individual jobs, and personal interviews are used to

obtain hourly data for those groups not covered by the data reported by the business enterprises to the Statistics on Earnings.

The 3 main sources used in the annual WTA are:

- 1) The Yearly Statistics on Earnings (Earnings statistics for the private sector, [www.declarations/861](http://www.declarations/861), and Earnings statistics for central and local government employees, [www.declarations/862](http://www.declarations/862)).
- 2) The Register of Employment Statistics. This register forms the basis for the Register-Based Labour Force Statistics ([www.declarations/848](http://www.declarations/848)) and the Statistics on Employment in Businesses ([www.declarations/1029](http://www.declarations/1029)).
- 3) The quarterly Working Time Account ([www.dst.dk/declarations/70784](http://www.dst.dk/declarations/70784)).

The WTA use the Register of Employment Statistics for obtaining data on the total number of active jobs over the year, on the number of persons employed at end-November, and on the number of primary and secondary jobs end-November. The Register of Employment Statistics contains information on A-income for all employees, and thus constitutes the main source for calculating compensation of employees in the WTA. In the Register of Employment Statistics a comprehensive integration of data on individuals from other statistical registers has been conducted. The Register of Employment Statistics also supplies the following data which are used in the WTA: persons in employment who are on labour market leave or maternity leave, reimbursements of sickness and maternity benefits, the statistics on the Danish Labour market Supplementary Pension Scheme (ATP) and pensions that are continuously paid out.

The WTA use the Statistics on Earnings in calculating hourly data for each individual job per year. In this context, hours of work performed are of great importance, as these indicate the time worked by an employee in the process of production. On the basis of the Statistics on Earnings, figures on the average annual hours of work performed per job are calculated. In this connection, the number of jobs in the statistical data on earnings is aggregated in the WTA, so that the definition of jobs is similar to that used in the Register of Employment Statistics. From 2000, the hourly data in the Statistics on Earnings are integrated with the data on level of jobs in the Register of Employment Statistics.

The quarterly system will be currently used for calculating annual values.

Average employment (and average number of jobs) over the year is estimated as an average figure of average employment during the 4 quarters of the year (respectively average number of jobs of 4 quarters). It is thus the quarterly system, which forms the basis for calculation of average employment and average number of jobs in the annual WTA. The basis for the calculation of average employment and average number of jobs in the WTA is information on the number of persons employed in the Register-based Labour Force Statistics (RAS) and number of primary and secondary jobs in the Statistics on Employment in Businesses (EBS) at the end of November. The development over the year is estimated quarterly by combining structural statistics at the end of November for employees and monthly data reports of A-income (MIA) for employees. For self-employed persons and assisting spouses, the development in jobs is exclusively estimated as an even development from one structural statistic to the next (persons employed in the RAS and number of jobs in the Statistics on Employment in Businesses). However, rolling annual statistics from the Labour Force Survey are applied for projection during the period after the latest structural statistics (i.e. as from the 4th quarter of 2004).

For a detailed description of the methodology and MIA see the declaration of contents for the Quarterly Work Time Account annex 2 and 4 (Calculation of average employment and average number of jobs in the WTA).

The Working Time Accounts are exclusively based on existing data sources, which are subsequently converted to the concepts used in the WTA. The WTA is flexible in its choice of primary sources, which can be replaced by other sources, if these have proved to be more accurate. The choice of primary source decides the amount of data editing necessary. When it comes to integrating all the sources, however, all the concepts are consistent in conforming to international standards and every variable fulfils the requirement of the system for the WTA.

#### **0.7 Legal Authority to Collect Data**

Not relevant for the working time account.

#### **0.8 Response burden**

No response burden. New systems for reporting data have not been established. All data requirements are fulfilled by existing statistics.

#### **0.9 EU Regulation**

No EU Regulation.

### **1 Contents**

#### **1.1 Description of Contents**

Consistent time series on employment, jobs, hours worked and compensation of employees. The data basis is made up of a number of primary statistical data, which are adapted and adjusted to achieve agreement between the concepts and definitions used.



## 1.2 Statistical Concepts

*Concerning self-employed, assisting spouses and employees respectively, there is an accounting, definitional relations between hours worked, jobs, compensation of employees and number of employed:*

*The average number of employed consist of the average number of persons above the age of 14 who every day during the year have been paid either as self- employed, assisting spouse or as employee. Persons who are temporarily absent due to leave, but who are connected to a workplace in the form of having a job to return to, are counted as being employed.*

1. Employment = number of primary jobs + persons on leave + persons on maternity

The average *numbers of jobs* are calculated as the sum of primary and secondary jobs. Similarly as to employment the average number of jobs is calculated for every day of the year. Employees who are temporarily absent from the labour market are not included in the estimation of jobs. There is the following relationship between the number of jobs and the number of employees:

2. Number of jobs = number of primary jobs + number of secondary jobs

The number of *hours of worked* is defined as hours paid by employers, including paid overtime and excluding paid hours of absence. Paid meal breaks are regarded as hours of availability and are included in hours worked. Paid hours of overtime are defined as the number of paid hours that are worked in excess of normal paid hours (i.e. contractual hours) and include extra hours of work for part-time employed without additional overtime pay. It is not possible to obtain detailed data on unpaid overtime hours and undeclared work. Unpaid overtime hours and undeclared work are therefore excluded from the calculation of hours of work performed in the WTA. Unpaid hours have explicitly been excluded, when quarterly statistics from the Labour Force Survey are used in estimating the provisional data on hours for the period, following the most recent structural statistics.

Hours worked include hours paid by employers, which have been carries out by persons aged over 14, including the hours in jobs that are not part of either the persons main employment or the persons largest secondary job.

3. Actual hours worked = average actual hours worked per job × number of jobs

The number of jobs refers to the total number of active jobs over a year (This concept differs from the published annual average number of jobs in the WTA).

*Compensation of employees* is calculated in accordance with the definitions in the National Accounts (SNA). Compensation of employees includes total wages and salaries in cash or in kind which the employer pays to an employee for work performed in an accounting period. Compensation of employees also includes employers' actual or calculated social contributions including contribution to pensions.

The compensation of the self-employed and assisting spouses is not included in the WTA. Furthermore, the hourly concept for the self-employed and assisting spouses differs from the hourly concept used for employees, as only hours in the primary job and most important secondary job are included for the self-employed and assisting spouses, and it is also impossible to distinguish between paid, unpaid and undeclared hours of work for these groups. The other variables are calculated in full accordance with the relational accounting equations that have been set up for employees.

An essential feature of these simple relational equations is that they can be used to link the various sources for different variables in the statistics. In this way, hours of worked performed are, e.g. extracted from the Statistics of Earnings, whereas the number of jobs are extracted from the Statistics of Employment in Businesses. These identities open up to, in addition to quality checks by comparing primary s sources, the fact that the relational accounting equations lead to new variables supplementing the present statistical resources.

## 2 Time

### 2.1 Reference Period

Numbers of employed and number of jobs are annual or quarterly averages.

Number of hours worked and compensation of employees are added up using the year or the quarter as the reference period.

### 2.2 Date of Publication

The Working Time Accounts are published once a year with annual figures and four times a year with quarterly figures.

The first release of annual data covering the period 1995-98\* was on 30 November 1999.

Next publication is planned to June 2007.

The annual Working Time Account publishes provisional figures about 7 months after the reference year and final figures about 19 months after the reference year.

### 2.3 Punctuality

The Working Time Accounts are usually published without delay in relation to the scheduled date.

However, the work carried out with respect to the general revision of the WTA has implied that figures covering the period 1995-2001 and 1995-2003 have not been published. Instead revised figures were published on 28 February 2006 in the Statistics News, Labour Market 2006:6: Working Time Accounts 1995-2004\* providing figures on the entire data series as from 1995.

## **2.4 Frequency**

Quarterly and yearly publications.

## **3 Accuracy**

### **3.1 Overall accuracy**

There are no figures on the size of revisions, etc. which have been undertaken.

### **3.2 Sources of inaccuracy**

The margins of statistical uncertainty associated with the working time statistics are related to the statistical uncertainty of the individual primary statistical sources that are used. The conceptual consistency and the uniform adaptation of sources over time contribute to a reduction of the margins of statistical uncertainty in the Working Time Account. Especially, the juxtaposition of information from the primary sources in a joint system will reveal, if any, errors, and subsequently errors can be taken into account in the WTA. These errors and inconsistencies are reported back to the primary sources. The work on integrating statistical systems will thus be instrumental in enhancing the general data quality of the primary statistical data.

For a description of the statistical uncertainties of the primary sources see the respective declarations of contents:

- ¿ Indicators for aggregate payroll costs, based on labour market contributions for employees, ([www.dst.dk/declarations/847](http://www.dst.dk/declarations/847)).
- ¿ Register-based Labour Force Statistics ([www.declarations/848](http://www.declarations/848))
- ¿ Statistics on Employment in Businesses ([www.declarations/1029](http://www.declarations/1029))
- ¿ The Labour Force Surveys (LFS) ([www.dst.dk/declarations/857](http://www.dst.dk/declarations/857))
- ¿ Monthly data reports of A-income (MIA) (annex 2)
- ¿ ATP-employment Statistics (based on the Danish Labour Market Supplementary Pension Scheme ([www.dst.dk/declarations/845](http://www.dst.dk/declarations/845)))
- ¿ Annual Working Time Account (WTA, [www.dst.dk/declarations/46613](http://www.dst.dk/declarations/46613))
- ¿ Earnings Statistics for the private sector ([www.dst.dk/declarations/861](http://www.dst.dk/declarations/861))
- ¿ Earnings Statistics on central and local government employees ([www.dst.dk/declarations/862](http://www.dst.dk/declarations/862))

There is a statistical uncertainty associated with MIA representing the seasonal pattern of employment and not only the seasonal pattern of jobs. MIA represents the number of gross jobs, consequently, if the seasonal pattern in the primary employment differs from the seasonal pattern of the secondary employment the seasonal pattern of employment will be associated with some uncertainty.

Furthermore, there may be differences in the seasonal patterns for average employment and average number of jobs compared to the seasonal patterns found in the primary data sources, if there are major differences in the development in the short-term statistics (MIA) over the year and the levels that apply in the 4th quarter of the year from the Register-based Labour Force Statistics and the Statistics on Employment in Businesses. There is also a statistical uncertainty associated with the fact that the structural statistics from the Register-based Labour Force Statistics and the Statistics on Employment in Businesses, which are status observations at the end of November of the year, represent the 4th quarter of the year.

### **3.3 Measures on accuracy**

There are no calculations of the measures of accuracy.

## **4 Comparability**

### **4.1 Comparability over Time**

The compilation of Working Time Accounts is based on the idea that the figures are comparable over time to the highest possible degree. The sources will continuously be improved and replaced by other sources if these have proved to be more accurate. New sources will always be adapted to the concepts of the Working Time Accounts System. This implies that adjustments of existing sources cannot immediately be seen as changes of variables and concepts in the Working Time Accounts Statistics, although adjustments of the level of the specific variable may be made according to the new and improved information.

### **4.2 Comparability with other Statistics**

The lack of data comparability between sources is attributable to differences in:

- Compilation methods
- Populations
- Definitions
- Margins of statistical errors
- Time of publication.

A fundamental principle of the Working Time Accounts is to document the coherence between statistics applied in the Working Time Accounts and to document coherence between existing statistics and the Working Time Accounts.

At the international level there is also a high degree of comparability as the Danish Working Time Accounts are worked out according to international guidelines, cf. EUROSTAT 1996: European System of Accounts (ESA 1995) and International Labour Organisation 1988: Current International Recommendations on Labour Statistics.

(Transitional tables between the WTA and the *Danish National Accounts* (Employment, hours worked and compensation of employees), *Register-based Labour Force Statistics* (employment) and the *Statistics on Employment in Businesses* (jobs and compensation of employees) can be seen in annex 6 [www.dst.dk/extranet/atr/atr\\_bilag\\_en.pdf](http://www.dst.dk/extranet/atr/atr_bilag_en.pdf)).

#### **4.3 Coherence between provisional and final statistics**

A provisional year is calculated on the basis of quarterly statistics.

The Working Time Accounts are undergoing a continuous development. In keeping with the current improvements of the sources and methods used in the Working Time Accounts, the annual figures will be revised.

### **5 Accessibility**

#### **5.1 Forms of dissemination**

The statistics are published in *News from Statistics Denmark* (*Nyt fra Danmarks Statistik*), in the series *Statistical News* ("*Statistiske Efterretninger*") and in *Statbank Denmark* ("*Danmarks Statistikbank*").

#### **5.2 Basic material: Storage and usability**

The basic material consists only of existing statistics. The basic material for the compilation of quarterly working time accounts is widely stored, but detailed non-published information is not made available.

#### **5.3 Documentation**

A report: "Integrated labour market statistics - the Labour Market Accounts and the Working Time Accounts 1995-97" ("*Integreret arbejdsmarkedsstatistik - Arbejdsmarkedsregnskab og Arbejdstidsregnskab 1995-97*") was published in December 1998. In this report, the Working Time Accounts were presented, including a far more detailed description of the applied primary sources and conceptual differences between these (The report is available at [www.dst.dk/boghandel](http://www.dst.dk/boghandel))

The Working Time Accounts will currently be published in the series *Labour Market* (*Statistical News*), together with the release of the main results in *News from Statistics Denmark*.

See annexes to the declaration of contents at [www.dst.dk/extranet/atr/atr\\_bilag\\_en.pdf](http://www.dst.dk/extranet/atr/atr_bilag_en.pdf)

#### **5.4 Other Information**

No other information is available.

### **6. Supplerende dokumentation**

Til denne varedokumentation findes ingen supplerende dokumentation

## 11.2 Statistical surveys and other data sources used for the expenditure approach

The main sources used for compiling GDP from the expenditure approach are:

- Retail Trade Index
- Household Budget Survey
- Census of Buildings
- Construction
- Construction cost index for residential buildings
- Construction cost index for civil engineering projects
- ICT expenditure
- EU-trade (intrastat)
- Trade with non-EU-countries

### **Retail Trade Index**

This declaration was transferred to the Internet on 3 October 2006

#### **0 Administrative Information about the Statistical Product**

##### **0.1 Name**

Retail Trade Index

##### **0.2 Subject Area**

Service sector

##### **0.3 Responsible Authority, Office, Person, etc.**

Service Sector

Head of Section

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##### **0.4 Purpose and History**

The purpose of the Retail Trade Index is to analyse and explain the development in turnover within the different sectors of retail trade, which is the important part of private consumption in Denmark. For evaluations and analysis of this economic trend development and the sectors of retail trade the survey is used.

The Retail Trade Index has been calculated for the three main commodity groups within the retail trade since 1939. In 1945 the publication was extended to 40 sectors, and today the publication covers 49 sectors of retail trade. From 1971 seasonally adjusted quantity index has been calculated. The methods of calculation have been revised several times, last time 1 January 2006. The sample has also been renewed several times. On the 1 January 2002 the criteria for drawing the sample were changed and since the sample is annually renewed by approximately 1/3.

##### **0.5 Users and Application**

Everybody who monitors the current business trends shares a great interest for the published statistics of retail trade. The statistics is in demand from trade associations, bank and finance sector, politicians, public and private institutions, researchers, enterprises, news media and Eurostat. It is also of great interest to many enterprises within the retail trade, as publications allow them to compare their own sales to those of their sector of trade. Furthermore, the statistics provide the significant input to the national accounts statistics, published quarterly by Statistics Denmark.

##### **0.6 Sources**

The Retail Trade Index is based on telephoned or written response by the enterprises in the sample.

##### **0.7 Legal Authority to Collect Data**

The Retail Trade Index has began as a voluntary survey. Legal authority to collect the data is currently given by the Act on Statistics Denmark (Lov om Danmarks Statistik), Section 8.

## 0.8 Response burden

The lifetime burden on the average respondent was for the year 2003 equivalent to 2.9 years of work.

## 0.9 EU Regulation

The Retail Trade Index is subject to European Council regulation (EC) no. 1165/98 of 19 May 1998, concerning short-term statistics.

## 1 Contents

### 1.1 Description of Contents

The Retail Trade statistics is published both as a turnover index and as a deflated turnover index. The turnover index shows the development in the turnover in current prices. Thus it includes both the development in volume and in price. The turnover index is published for all 49 sectors of the retail trade and for the 3 main commodity groups: "Food and Other Basic Commodities", "Clothing etc." and "Other Consumption Goods". The deflated turnover index, corrected for the development in prices, is a quantity index that shows the development in the volume of sales. The turnover index is deflated with the weighted consumer price index. For more detailed information one can contact the person responsible for "Prices and Consumption" in the Department of Economic Statistics. Deflated turnover indices are not published for all sectors of the retail trade, but only for the whole retail trade and the three main commodity groups. The indices for the three main groups and the whole retail trade are also seasonally adjusted. This adjustment takes into account certain public holidays (e.g. Easter) as well as the number of trading days in each month. So far it is not possible to correct for all types of trading day effects.

### 1.2 Statistical Concepts

*Units and population.* The enterprises in the Retail Trade Index are all legal units. In the Central Business Register of Statistics Denmark (CBR) the legal units are known by their CVR-number. Those units, who have their main or secondary activity within the sectors of retail trade, constitute the population. The total number of enterprises in the sectors of the retail trade is estimated to be approximately 31,000. Those 31,000 enterprises are delimited to approximately 9,000 enterprises with a turnover in excess of DKK 2,5 mil. From this population a sample is made, which is used as a frame for the calculations of the Retail Trade Index.

*Variables.* In the survey the enterprises are asked about their sales, VAT included, to private households. Sale to private households is defined as retail trade.

*Statistical aims.* In the national publications the index for each sector of retail trade is stated as turnover index. For the three main commodity groups, a deflated turnover index and seasonally adjusted index is also stated.

*Classifications.* In the national publication the following classifications of sectors of trade are used:

- Grocer's shops (52.11.10)
- All-nights shops (52.11.20)
- Supermarkets (52.11.30)
- Discount stores (52.11.40)
- Retail sale of fruit and vegetables (52.21.00)
- Retail sale of meat and meat products (52.22.00)
- Retail sale of fish, game, crustaceans and molluscs (52.23.00)
- Bakers' shops and retail sale of bread, cakes and flour confectionery (15.81.20 and 52.24.10)
- Retail sale of chocolate and sugar confectionery (52.24.20)
- Retail sale of alcoholic and other beverages (52.25.00)
- Retail sale of tobacco products (52.26.00)
- Retail sale of cheese (52.27.10)
- Retail sale of other specialised stores with food (52.27.30 and 52.27.90)
- Variety and department stores (52.12.10 and 52.12.20)
- Dispensing chemists (52.31.00)
- Perfumery shops (52.33.10)
- Chemists (not licensed to dispense medicine) (52.33.20)
- Retail sale of textiles (52.41.00)
- Retail sale of ladies clothing (52.42.10)
- Retail sale of men's clothing (52.42.20)
- Retail sale of men's and ladies clothing (52.42.30)
- Retail sale of baby articles and children's clothing (52.42.40)
- Retail sale of footwear (52.43.10)
- Retail sale of leather goods (52.43.20)
- Retail sale of furniture (52.44.10)
- Retail sale of furnishing fabrics (52.44.30)
- Retail sale of kitchen utensils, glass and china (52.44.40)
- Retail sale of electric household appliances (52.45.10)

- Retail sale of radio- and television goods (52.45.20)
- Retail sale of records, CDs, cassettes, etc. (52.45.30)
- Retail sale of musical instruments (52.45.40)
- Retail sale of hardware (52.46.10)
- Retail sale of building materials (52.46.20)
- Retail sale of paints and wallpaper (52.46.30)
- Retail sale of books, newspapers and stationery (52.47.00)
- Retail sale of carpets (52.48.01)
- Retail sale of watches and clocks (52.48.05)
- Retail sale of watches, clocks and jewellery (52.48.10)
- Retail sale of jewellery (52.48.15)
- Retail sale of glasses (52.48.20)
- Retail sale of photographic equipment (52.48.25)
- Gifts shops (52.48.30)
- Retail sale of sports goods (52.48.45)
- Retail sale of toys and games (52.48.50)
- Retail sale of bicycles and mopeds (52.48.60)
- Retail sale of computers, standard software and office machinery (52.48.66 and 52.48.67)
- Retail sale of telecommunications equipment (52.48.70)
- Florist's shops and retail sale of plants and seeds (52.48.75 and 52.48.80)
- Retail sale via mail order houses (52.61.00)

The groupings are constituted by use of DB03; the codes are showed in parentheses. A complete description of the sectors exists in "Danish Industrial Classification of All Economic Activities 2003" (DB03), Statistics Denmark 2003. The shift from DB93 to DB03 from the 1 of January 2003 has caused minor changes to a few series.

In the national publication the following grouping of main sector indices are furthermore used:

*Food and Other Basic Commodities* cover the total turnover at grocers and shops with specialised sales within food and other basic commodities, inclusive department of food in supermarkets, discount stores and department stores.

*Clothing etc.* consists of the turnover in stores with specialised sales within clothing, footwear and textiles inclusive supermarkets, discount stores and department stores sales of these goods.

*Other Consumption Goods* cover the turnover mainly for stores with sales of equipment for home and leisure together with the supermarkets, discount stores and department stores sales of these goods.

In Eurostat publications another grouping of the sectors are used and the following sectors are included:  
52.32.00, 52.44.50, 52.48.35, 52.48.40, 52.48.55, 52.48.85, 52.48.90, 52.48.99, 52.50.10, 52.50.20, 52.50.90, 52.62.10, 52.62.90, 52.63.00

## 2 Time

### 2.1 Reference Period

The questionnaires concerning the sales for the previous month are posted the last day of the present month. In the publication, indices are published for the month following the previous publication month.

### 2.2 Date of Publication

The statistics are usually published the first working day every month for the three main sector indices in the article *News from Statistics Denmark*. Index for each level of sector of retail trade is published approximately 53 days after the reference period in Statbank Denmark and 53 days after the end of each quarter in *Service Sector Statistics (Statistical News)*.

### 2.3 Punctuality

The statistics are usually published without a delay in relation to the scheduled date.

### 2.4 Frequency

Articles *News from Statistics Denmark* are published every month, i.e. the article is published 12 times a year. *Statistical News* articles are published every third month, i.e. 4 times a year.

## 3 Accuracy

### 3.1 Overall accuracy

The delimitation of the population is based on the Central Business Register of Statistics Denmark and DB03. The starting point is enterprises with their main activities within retail trade. In addition, the enterprises with their main activity outside retail trade but with their second line of business within retail trade are included. For the latter a recalculation is carried out, so that only the part of the turnover connected to the retail trade is included. Furthermore, bakers are also included in the retail trade statistics,

even though their sector in the trade classification belongs to the production industry.

The total turnover of the sectors included in the Retail Trade Index accounts for approximately 96 per cent of the total turnover in the whole retail trade sector. Some retail trade sectors are not included in the statistics, partly due to insignificant sales and partly due to some specific conditions in certain sectors.

Since the survey is compulsory and the reminding procedure is intensive, the response rate is approximately 99 per cent, measured on turnover in final figures.

### **3.2 Sources of inaccuracy**

#### *Coverage*

The total number of enterprises in the population is estimated to be approximately 9000. From this population a sample is selected that is used as a basis for calculating the indices. This sample comprises units in the population, which generate annual turnovers for at least DKK 2.5 million, VAT included. The sample covers approximately 36 per cent of the enterprises and approximately 87 per cent of the total turnover from all the enterprises with turnover of at least DKK 2.5 million in the sectors of retail trade.

#### *Sample/size class*

In the sample, all enterprises with annual sales in excess of DKK 20 million, VAT included, are included. The remaining enterprises are chosen optimally. The population is divided into 4 size classes. The size classes are: DKK 2.5-5 million, 5-10 million, 10-20 million and beyond 20 million. Among the enterprises with less than DKK 20 million in annual turnover, the size of the sample is determined by the turnover index. The units with retail trade as their secondary line of business are chosen based on their share of the total turnover within the sector of retail trade. The limit of DKK 2.5 million in annual turnover for participating in the sample has been chosen to curtail the burden of the respondent for small enterprises.

The total selected sample consisted per 1 January 2006 of 3.300 enterprises. Each year the sample is renewed by approximately 1/3 of the enterprises with an annual turnover between DKK 2.5-20 million. Hence, it is assured that the size of the sample is kept at the same level and the sample gives an accurate picture of the retail trade sector. This method implies that some enterprises can be exempted from the sample for some period.

#### *Collecting/measuring*

The reported figures of the turnover are either typed in by telephone or obtained through submission of completed questionnaires by the enterprises. The questionnaires are posted at the end of the period for which data are submitted. If the questionnaires have not been returned within a few days after the deadline, a reminder is sent, together with a new deadline. If this deadline is exceeded as well, the enterprise is reminded by telephone. Completion of the questionnaires is mandatory. However, some enterprises do not fulfil their duty. In those cases Statistics Denmark sends a registered letter, stressing out that their turnover must be reported within a week. Otherwise, Statistics Denmark will notify the police.

In the questionnaire, each enterprise is asked about their turnover, VAT included, to private households. Turnover to private households is defined as retail trade. This includes repairs undertaken at the premises of the enterprise; for instance, the repairs of watches are also included in the total turnover for the watch and clock stores.

Supermarkets, discount stores and department stores sell a very wide variety of goods. In order to be able to estimate and publish the Turnover Index, which is divided into three main commodity groups: "Food and Other Basic Commodities", "Clothing etc." and "Other Consumption Goods", the enterprises in these sectors are requested to report the turnovers for those three main commodity groups separately. If the enterprise is unable to submit accurate figures, it is requested to estimate the sales stemming from each group.

The submitted data undergo an error probability control. If the reported turnover deviates considerably from earlier records then the enterprise in question is asked to investigate the correctness of the returned turnover figures. It is assumed that not all errors in submitted forms are detected, and therefore the statistic is a subject to some uncertainty.

#### *Maintenance of the sample*

Due to the intensive reminder procedure, only a very limited number of enterprises in the sample do not return the completed questionnaires.

The sample is renewed each year by refreshing one third of the sample. Hence, it is possible to update changes in the structure and in the development in the populations turnover. Furthermore, the annual renewal keeps the size of the sample at the same level and insures that a level break will not occur in the enumerated turnover.

#### *Calculation method*

The enumeration is based on the reported turnovers and the VAT-turnovers submitted to VAT Statistics. Information about VAT-turnovers is received every 3 month from the Central Business Register of Statistics Denmark. VAT-turnovers are used both to determine the optimal sample allocation and to improve the accuracy of the estimates.

The estimated Retail Trade Index is an expression for the development in the retail trade for enterprises with an annual turnover in excess of DKK 2.5 mil. This development is also assumed to express the development in total retail trade.

The total estimated turnover is calculated as a sum of each sectors estimated turnover. The Retail Trade Index, based on the estimated turnover is calculated for every sector in retail trade, and for the total retail trade. Formulas for these calculations can be seen in Statistical News, *Service sector 2002:48*. No absolute figures for the retail trade are published.

Anyone interested in the absolute turnover figures for each sector or for the total retail trade, is referred to the statistics over business units registered for VAT settlement, published with industrial distribution.

The seasonal adjustment of the indices for the three main commodity groups, the index for the total retail trade, and indices for the sectors that are sent to EUROSTAT, is performed by the use of X-12 ARIMA, with the user surface Demetra. The seasonal adjusted series are corrected in such a way, that the annual sum of the seasonally adjusted series equals the annual sum of the original series. If detailed information on the seasonal adjustment is needed, one can contact the person responsible for this statistics or the Methodological Unit of Statistics Denmark.

The figures in the publication *News from Statistics Denmark* are based on a high percentage of reported turnovers; hence, there are only minor differences between the provisional and the final figures that are published in the *Statistical News* articles.

### **3.3 Measures on accuracy**

The survey is based on a sample and thus some uncertainty is attached to the results. For the whole retail trade sector, however, the uncertainty is considered to be small, since the coverage is extensive. A risk of a higher uncertainty is taking place in those sectors, where the coverage is not always as extensive. The monthly estimation of development in turnover in each sector of retail trade will therefore carry some uncertainty, especially in sectors that mostly consist of enterprises with an annual turnover of less than DKK 2.5 mill. Uncertainty caused by wrongly reported figures and misunderstandings are sought minimized by different means of probability control of the submitted figures

## **4 Comparability**

### **4.1 Comparability over Time**

The survey has been carried out since 1939. Since then the sample selection, the calculation procedures and the basic periods have been adjusted several times.

The latest methodical changes were made the 1.1.2005, together with the latest renewal of the sample. The new industrial classification by 2003, has only caused minor changes to a few sectors. Thus by recalculating the data back to 2000, the series should not have a data break.

### **4.2 Comparability with other Statistics**

Other business trend statistics also show the development in retail trade. Therefore the results of the survey are the object of ad-hoc confrontation with the other statistical sources. Below, a brief description of the relationship between the Retail Trade Index and a number of other statistics, which can be used to assess development in the retail trade is given.

#### *VAT statistics*

Besides being an all-inclusive statistic, the VAT statistic is different from the Retail Trade Index statistic in the sale and unit concepts that are used. In the VAT statistic, the total turnover is the total domestic turnover for the enterprises that have retail trade as their main activity. While the Retail Trade Index only covers the turnover to private individuals. In the Retail Trade Index the enterprises with the retail trade as their secondary activity are also included. The VAT statistics are based on current payments of VAT. This means that changes in population have in principle an immediate effect on the figures in the VAT statistic. The same is not the case with the Retail Trade Index.

#### *Consumption of goods in the national accounts statistics*

The Quarterly National Account Statistics state private consumption including the households consumption of certain types of products, for which development in turnover are included in the Retail Trade Index. In the National Accounts Statistics, figures are stated regarding the quarterly development in consumption by product type.

#### *Other statistics*

Apart from the above-mentioned statistics, which can be used to assess the development in the total retail trade, a number of other statistics partly cover household consumption.

For the purpose of business trend valuations, monthly statistics are made for sales of newly registered motor vehicles, based on information from the Central Register of Motor Vehicles.

Annual statistics based on samples are made for sales in a number of service trades (for example retail trade in personal computers, etc., wholesale sales of office machines, etc.)

A number of associations within the retail trade prepare statistics on developments in sales based on data from their own members.



#### **4.3 Coherence between provisional and final statistics**

The provisional figures in the publication *News from Statistics Denmark* are based on high percentage of reported turnover. Hence, there are only minor differences between the provisional and final figures, which are published in the *Statistical News* articles.

### **5 Accessibility**

#### **5.1 Forms of dissemination**

Current publications: *News from Statistics Denmark, Service sector (Statistical News)* and *Main Indicators*.  
Yearbooks: *Statistical Yearbook*.

Statistics Denmark's StatBank Denmark at [www.statistikbanken.dk](http://www.statistikbanken.dk)

#### **5.2 Basic material: Storage and usability**

Basic material is kept and stored for approximately two years (in both paper and electronic form).

#### **5.3 Documentation**

The present statistical method is more closely described in *Statistical News: Service sector 2002:48*. The changes concerning the new industrial classification are described in *Statistical News: Service sector 2003:24*.

#### **5.4 Other Information**

Other information is not available.

### **6. Supplemental documentation**

No supplemental documentation is available

## **Household Budget Survey**

**This declaration was transferred to the Internet on 3 July 2006**

### **0 Administrative Information about the Statistical Product**

#### **0.1 Name**

Household Budget Survey

#### **0.2 Subject Area**

Incomes, consumption and prices

#### **0.3 Responsible Authority, Office, Person, etc.**

Prices and Consumption  
Martin Jeppesen tel.: +45 3917 3411  
e-mail: [mje@dst.dk](mailto:mje@dst.dk)

#### **0.4 Purpose and History**

The purpose of the survey is to give information on the economic conditions of the private households - incomes, savings as well as consumption. Consequently, the survey can be characterized as a survey of living standards and of general economic conditions.

The survey has been conducted at varying intervals since the late 19th century. From 1994 the survey was subjected to substantial methodological changes, and the survey is now conducted on an annual basis in a way that makes comparisons possible.

Similar surveys are conducted in most other countries.

Other statistical products give information on topics in the household budget survey, e.g.:

- The national accounts give information on private consumption - but the figures from the household budget survey are more detailed, and they can be grouped by household types.
- The income statistics give information on household income - but the income concept in the household budget survey is broader and covers also untaxed incomes.
- The general statistics on households, housing, etc. give information on households and on housing - but the household concept in the household budget survey differs slightly, as it is based on the own definition of the household.

In general, it is recommended that the household budget survey is only used (based on a sample) in cases, where the information needed cannot be found in other (register-based) statistical products.

### 0.5 Users and Application

In addition to serving the general public interests the survey has broad groups of users:

- It is used internally at Statistics Denmark in compiling price indices and national accounts statistics.
- Government bodies use the survey for purposes of planning and for conducting analyses of the consequences of new legislation, etc.
- The survey is used for researches purposes within several fields.
- The survey can be used for marketing purposes, etc.
- Internationally, the survey is widely used. Especially, EUROSTAT is very active in enabling comparability of the survey results among the EU Member States.

### 0.6 Sources

The survey is based on a sample, and the number of participating households in the latest survey is 2,581 from among 2.554 million households in Denmark in 2003 (estimated in the Household Budget Survey).

The data is obtained from 3 different sources:

The households have participated in a comprehensive interview. Here, they have been asked about regular outlays a year back, major expenses, the stock of durables kept by the households, the use of services within the health system, education and child care, and some incomes. The interviews are conducted with different households throughout the calendar year, so some data will concern the previous year.

The household has kept a detailed diary for two weeks, implying that the households write down every single expense in this period. The diary keeping is conducted in different households throughout the calendar year, so seasonally changes are taken into account.

The diary keeping has two main purposes:

- It ensures a total coverage of e.g. new products and rarely consumed products.
- It ensures coverage of more day-to-day consumption that cannot possibly be remembered a year back.

To ease the participation in the survey, questions regarding topics for which Statistics Denmark already have usable data, are left out. This regards data about income and taxes, dwellings, education and occupation.

The purpose is to draw a sample, which gives results that are good approximations for all private households in Denmark. At the same time, it is important that the interviewers conducting the data collection are the best qualified for this job.

To reduce transport costs, the sample is drawn randomly within specific geographic areas, defined by the address of the interviewer as well as the consideration of a reasonable geographic coverage.

It is not possible to draw a sample among households in accordance with the way in which they are defined in the survey. Instead, the sample is drawn from addresses. When the interviewer visits the address, it is decided whether one or more households are living at the address, or if the address is unoccupied or occupied by a shared household, such as an old-age home, which is to be excluded. In the case of more households at the address, all households have, as far as possible, participated.

Different addresses were visited at different times of the year, so that the whole year has been covered. The participating households were visited twice:

- At the first visit the household was defined, the instructions of the diary keeping were given and the first part of the interview was completed.
- At the second visit two weeks later the second part of the interview was completed and the interviewer received the completed diary from the household.

The interview has been carried out using a laptop. Consequently, it has been possible to do a number of checks at the spot, which is important for the quality of the survey.

Statistics Denmark does not have disposable interviewers, who can visit households all over the country, so the fieldwork in 2002-2004 was carried out by interviewers from the company SFI-SURVEY. Statistics Denmark is fully responsible for the survey, including interview program and other materials used.

The objective is to collect data from approximately 1,000 households a year. A sample of this size is too small to give a reasonable foundation for a detailed statistic, so instead data from 3 years in succession are aggregated into one sample. All expenses, incomes and so forth are recalculated to the price and volume level of the middle year. In the latest survey, data is collected in 2002, 2003 and 2004, and subsequently recalculated to the 2003 level.

#### **0.7 Legal Authority to Collect Data**

Data is collected according to section 1 of the Act on Statistics Denmark.

Participation in the survey is voluntary.

#### **0.8 Response burden**

No response burden has been estimated since participation in the survey is voluntary.

#### **0.9 EU Regulation**

No direct regulation exists - but the regulation on the harmonized index on prices indirectly presupposes that a kind of household budget survey is conducted.

### **1 Contents**

#### **1.1 Description of Contents**

The survey gives detailed information on the economic conditions of the households. The following main topics are covered in an exhaustive and comprehensive way:

- Consumption
- Incomes
- Stock of durables
- The use of health-, education- and child care services
- Pension schemes
- Direct taxes
- Taxes on imports and production
- Indirect transfers from the public - i.e. the transfers, which the household receives without paying the total costs for the services.

This information can then in a great variety of ways be combined with background information on the households, among this information is:

- Household size and composition
- Household income
- Housing conditions
- Level of education
- Geography
- Etc.

#### **1.2 Statistical Concepts**

*Units and population:*

The household budget survey examines the *economic conditions* of private households. Consequently, consumption is recorded in value, not in volume.

The survey examines the actual economic conditions of the households. Questions about attitude or opinion are not collected.

A private household is defined as an *economic unit*: A group of persons living together and having a high degree of common economy - that is sharing incomes and expenses. In 2003, there were 2.554 million private households in Denmark (estimated by the Household Budget Survey).

Persons living in different kinds of shared households (prisons, hospitals, some institutions etc.) are excluded, since it is typically impossible to distinguish the private economy from the shared economy. For some of the survey variables, it is important to have this exclusion in mind, e.g. for analyses of the use of hospital services (as more permanent hospitalized persons are not covered).

In principle, the latest survey covers 5.347 million persons of the total population of 5.391 million persons in 2003.

It is the *private* economy that is examined. Goods consumed in a production process (plant and machinery etc.) and other company-related expenses are not covered.

The household concept in the Household Budget Surveys differs from other concepts used by Statistics Denmark. In the register-based statistics, households are either defined as persons living at the same address, or as persons connected by different bonds (marriage, common children etc.). In the Household Budget Survey, the definition is made by the involved household itself in co-operation with the interviewer.

In most cases, there is no difference between the different definitions, but in some cases a lodger will be included in the main household in the register-based statistics, while the lodger who has a separate economy constitutes a separate household in the Household Budget Survey. In the typical statistics from the survey, no distinction is made between married and non-married couples, and no distinction is made between couples of different or same sex. Furthermore, it is not important if a person is registered at a specific address at the national registration office. It is the actual situation when the interviewer visits the household that is important.

While the data in the survey is normally per household, it will in many cases be relevant to look at the data per person or by equivalence unit.

E.g. it is not meaningful to compare an average household whose yearly income is over DKK 800,000 and whose total consumption amounts to DKK 433,000, while an average household whose yearly income is under DKK 150,000 and whose total consumption only amounts to DKK 118,000. This is due to the fact that the first household type consists of 3.3 persons, while the latter consists of 1.1. Consequently, more people share income and consumption in households with higher income.

For analytical purposes it can therefore be relevant to look at the consumption per person in this case the consumption in households with higher income will be DKK 133,000 per person, while the household with lower income uses DKK 110,000 per person for consumption.

In a welfare analysis conducted on the basis of consumption per person, it is indirectly assumed that all persons have the same needs, regardless of the household type to which they belong.

To make a better comparison between households of different size and composition, consumption etc. can alternatively be calculated by equivalence unit. The reason is that households consisting of several persons have certain large scale advantages. A household with several persons are able to share a part of the dwelling area and installations, it may make large scale shopping cheaper, every person in the household does not need a car etc. To obtain a similar welfare level, a household with 2 persons does not need to have a twice as large consumption as a household with 1 person. Furthermore, it is implied that children do not need to have the same consumption level as adults, to obtain the same welfare level.

To compare the welfare level between different household types, an equivalence scale can be used. This type of scale is designed to recalculate the welfare effect of consumption or income of different households. The main unit is the adult equivalent - that is the consumption in a household consisting of precisely 1 adult. There is no unambiguous way to define such a scale, so on the basis of international recommendations Statistics Denmark has decided to define the equivalence unit in the following way:

The first person over 14 years old counts for 1, other persons over 14 years count for 0.5 and children 14 years old or lower count for 0.3. A household consisting of 2 adults and 2 children therefore consists of 2.1 equivalence units. This scale is called the modified OECD-scale.

Re-estimated using this scale a household with an income of 800,000 consists of 2.0 equivalence units, while a household with an income of up to DKK 150,000 consists of 10 equivalence unit. The consumption per equivalence unit is therefore DKK 221,000 in the first household type and DKK 115,000 in the latter.

This way of defining the scale is subjected to discussion. It may be claimed that the scale should be graduated even more by the age of the person, that the large scale effect should be graduated and so forth.

While consumption is collected by household, other parts of the survey are collected by person. This applies to incomes, taxes, data about pension schemes and the use of public services etc.

*Variables:*

*Wages and salaries etc.* consists of wages and salaries before tax is paid, employers and employees payments to pension schemes, including ATP (Danish Labour Market Supplementary Pension Scheme), as well as salaries in non-monetary forms e.g. paid for car, dwelling etc.

*Entrepreneurial income etc.* consists of profit from self-employed occupations. Investment income regarding the business is included, while interest expenses are excluded. The item can sometimes contain values below zero either because the business as such has a deficit or because the interest expenses have been large. Furthermore, self-employed person consumption of own goods from production or shop (e.g. farmers or grocer) is included, as well as income from undeclared work.

*Property income* contains income from private investments and stocks etc. Furthermore, the imputed rent for owner-occupied dwellings and secondary residence are included. On the other hand, increase in value (either realized or not) of capital goods such as securities and real estate is not included.

*Private transfer income* contains received presents and winnings, payments from insurances etc. as well as payments from private pension schemes (including ATP) and received child maintenance and alimony.

*Public transfer income* contains payments from public pensions, unemployment benefit and other unemployment fund payments, sickness benefit, cash benefit, study benefit, housing benefit as well as child benefit.

*Other incomes and balancing* contains several minor types of income, as well as balancing as a result of difference in periods between different types of data. The value may sometimes be below zero.

These incomes add up to the *gross income*.

Besides these types of more current incomes, the household also may receive *capital transfers*, such as inheritance, payments from the Danish Employees Capital Fund, one-time payments from ATP etc.

The sum of the gross income and capital transfers constitutes *total income*.

From the total income *income taxes etc.* (direct taxes) are paid, which include ordinary income taxes, labour market contributions, taxes regarding inheritance, housing and presents as well as payments to unemployment insurance.

Furthermore, *private interest expenses etc.* are paid, in which especially interests regarding housing are of importance. Also other compulsory transfers are included, such as paid child maintenance, alimony, compensation etc.

The total income minus income taxes and private interest expenses constitutes *the disposable income*.

Adding the net sum from received capital pension to the disposable income equals the central concept *disposable amount*.

The disposable amount can be used to pay different fines that is a payment, which is similar to taxes.

It can also be used for presents and charity towards other households or charity organizations.

It can be used to pay for subscriptions to associations (non-profit organizations regarding households), including labour unions, sport associations etc.

The household can also use there disposable amount as *savings*, which can be divided into four types:

- *Payment for pensions schemes and ATP* (Danish Labour Market Supplementary Pension Scheme). This includes all types of pension schemes, private as well as types organized through an affiliation at the labour market.
- *Payment for private life insurances etc.*
- *Value of extension and rebuilding etc. of the dwelling or secondary residence* as well as expenses regarding building of a new dwelling considered to be investments regarding the dwelling. According to international recommendations, expenses regarding buying or selling of the dwelling are included (e.g. the real estate agents fee). However, the buying or selling price in itself is excluded.
- *Other kinds of savings*, which are calculated as a residual, and cover all other forms of positive or negative savings, including repayment on loans on owner-occupied dwellings, consumer credits, student loans, savings or loans in banks etc.

Please note that in spite of payments to pension schemes, they are included as positive savings, payments from pension schemes are regarded as income and not as negative savings. The reason is that for the individual person, there is no direct relationship between the contribution to and the payments from the pension scheme, because it depends, among other things, on the expectancy of life for a person.

The remaining part of the income is used as *consumption*.

- The major part is paid consumption of goods and services. Note that goods bought by instalment are included as the total cash price (excluding credit costs). Repayments are, on the other hand, not included as consumption but as saving. Private sale of personal property is included as negative consumption. This is especially important concerning cars, where it is common to pay a part of the new cars price by means of the sales price of the old car.
- The imputed rent for owner-occupied dwellings and secondary residence are included as consumption.
- Furthermore, also types of non-monetary incomes are included (paid for car, telephone as well as self-employed persons consumption of own goods).

As supplement to these main aggregates, also data about *indirect contributions* from the authorities, which are indirectly received by the households when using public services as child care, education and health care, which is free of charge or is subject to a price reduction, are available.

Furthermore, data about *production- and import taxes* (indirect taxes) paid by the households are available, i.e. taxes and duties imposed especially on the consumption, but also extension and rebuilding of the dwelling, such as VAT on building materials etc. and stamp duty regarding buying and selling of dwellings.

When including the indirect contributions and production- and import taxes, it is possible to monitor the economic transactions between the households and the authorities:

- To the household from the authorities: Direct transfers, i.e. public transfer incomes + indirect contributions.
- From the households to the authorities: Income taxes + production- and import taxes.

Especially the indirect contributions are difficult to interpret. It makes no sense to claim that a person being hospitalized over a longer period, and therefore having received a large indirect contribution, has a welfare gain in comparison with a healthy person. Furthermore, it is worth noticing that only some but essential types of contributions are included. A major drawback is that it has not yet been possible to include public contributions towards medicine.

The survey also contains data about the households *net wealth*. More precisely, it is the tax related net wealth at the end of the year. In 1997, wealth tax was cancelled, and as a consequence not all types of wealth are reported to the tax authorities. The amount is therefore too low for some households, but it still gives an idea of the distribution of wealth.

*Statistical measurements:*

The typical statistics from the survey are given as an average in DKK per household per year.

*Groupings:*

Consumption as well as incomes can be grouped at different levels of detail. The consumption can for instance be classified to between 11 and 1,100 groups.

## **2 Time**

### **2.1 Reference Period**

The data is collected over a period of 3 years, so the real reference period is this 3-year period.

To facilitate the use of the data, all information is recalculated in the best possible way so that it covers the year in the middle, implying that for the practical use, the reference period is one calendar year (for flow variables, such as consumption and income, it can be perceived as the calendar year, and for stock variables, such as household configuration and dwelling situation, it can be perceived as the end of the calendar year).

### **2.2 Date of Publication**

The statistics are updated yearly, where approximately one third of the households are new, while two thirds was also included in the previous survey. Measured according to last years data collection, the publication time is about 1 year.

### **2.3 Punctuality**

The statistics are usually published without delay in relation to the scheduled date.

### **2.4 Frequency**

A yearly updated version is published.

### 3 Accuracy

#### 3.1 Overall accuracy

A survey like the Household Budget Survey is subject to a number of inaccuracies. Most errors and shortcomings are not of a kind that can be measured, and it is therefore not possible to measure the total inaccuracy in the survey.

The sample-related coefficient of variance for total consumption per household is estimated at less than 1 pct. The coefficient of variance is estimated on the assumption that the sample is simple and random, which is not the case, because the sample is a cluster sample within geographically defined areas. Therefore, the coefficient of variance underestimates the actual sample error.

The total inaccuracy of which the sample related coefficient of variance is only a part can, as noted, not be measured, because it is not possible to measure the other types of errors. What other kinds of errors should be taken into account are described in the next section.

In general, the inaccuracy is higher, the more detailed level data are broken down to and the fewer households on which the average is based.

#### 3.2 Sources of inaccuracy

##### *Coverage:*

The survey is based on a sample, where the final number of households in the latest survey is 2,581 from the total of 2.554 million private households in Denmark (estimated in the Household Budget Survey).

Persons living in different kinds of shared households (prisons, hospitals and other institutions) are not included, because it is difficult to separate the private economy from the shared economy. In principle, the latest survey covers 5.347 millions persons out of the total population of 5.391 million persons.

##### *Sample:*

The latest survey consists of data from 2,581 private households, randomly chosen within a number of defined geographic areas, which all together give a good coverage of different parts of the country, city types etc.

The gross sample is 4,500 occupied addresses, from which 57.8 pct. participated in the 2002-2004 Survey. The non-response was 42.2 pct. A response rate of this size is considered to be fair especially when considering the extensive efforts related to participation for the responding households.

Also in comparison with similar surveys conducted in other countries, the response rate is satisfactory.

Participation in the survey is of course voluntary. Statistics Denmark is not able to give any real payment, but the participating households receive a gift and participate in a lottery in return for their participation.

##### *Data collection:*

The data sources are interviews, diaries and administrative data, where different kinds of inaccuracies are associated.

- The households *lack of memory* might influence the interview, because it can be difficult for the household to remember, if a specific expense was made 11 or 13 months ago.
- In keeping the diary the household can *forget* to register certain expenses especially at the end of the two-week period. Analysis has shown that more expenses are registered in the first week than in the second. To adjust for this forgetfulness, all diary data from the second week are enumerated with 4 pct.
- The households *lack of knowledge* might influence the quality of the difficult questions about insurances.
- The households *reluctance* to give correct answers might cause a problem. For instance, it is possible that answers about undeclared work is faulty and therefore give underestimated values, because some households have been reluctant to answer correctly. The same problem might affect answers regarding consumption that is illegal (e.g. narcotics) or in some way is perceived as problematic (e.g. a large consumption of alcohol). In general though the impression is that the participating households are both willing to answer questions and to be honest. An imbalance rather occurs because households with something to hide do not participate in the survey.
- *Errors and shortcomings in the administrative register data* might cause a problem. For instance, it cannot generally be expected that the tax authorities always correct incorrect data if there is no tax-related consequence. Furthermore, register data are defective for households where a person has died and for households which were not assessed ready (typically with complicated income and tax) at the time the data was obtained by Statistics Denmark.

#### *Non-response:*

Non-response is unwanted for two reasons: It weakens the final output, because fewer households participate, which makes the inaccuracy greater. But more troublesome it adds bias to the results, when the non-response is unevenly distributed between the households.

The non-response is especially large among households with just one person or with 7 and more persons, among the elderly, among retired persons, among households with low income and in the metropolitan area and in municipalities with cities having between 40,000-99,999 inhabitants. Conversely, the non-response is small among households with 4 persons, among households where the oldest person is between 20-29 years old, among wage earner households, among households with an income between DKK 500.000-799.000 and in municipalities with cities having between 10,000-19,999 inhabitants.

To partly neutralize the bias from the non-response and the sample, the values are weighted.

Household types where the non-response is large, and which are consequently underrepresented in the survey, are assigned a relatively large weight, and households which are overrepresented are assigned a relatively small weight.

In most tables, information about the estimated number of households in Denmark as well as the actual number in the survey is included. The latter information is important when assessing the inaccuracy, because a small number of households in a given group cause greater inaccuracy.

From the 2002-2004 survey a new method to calculate weights was implemented. Before the weight was calculated by post stratification, where the sample and the population were split into a number of identical strata, constructed from the combination of 6 characteristics: Household size and composition, income, the main income earners socioeconomic status, if the household owns or rents the dwelling and in what type of city area, the household lives. The principle is then that households consisting of 1 person, with an income of DKK 300.000, who is a wage earner, who rents his dwelling and who lives in the metropolitan area is assigned a weight, which is equal to the number of this particular type of household in the population.

In the new method the weight is calibrated using a regression estimate. The focus is no longer on the combination of characteristics, but rather on the individual characteristic in the relationship between sample and population. The advantage with the calibration method is that more characteristics can be included. Apart from the already mentioned characteristics, level of education, gender, geography and other characteristics are included as well, at the same time as the above-mentioned characteristics are split into more detailed groups. The new method gives therefore more precise estimates among those characteristics that are included, than was the case with post stratification.

#### *Processing of data:*

An extensive checking and processing of the data is carried out comprising e.g.:

- For all amounts given by the households, it is checked if the size of the amount seems reasonable. For the interview-based data this is done at the visit to the households and corrections are made directly.
- For a number of data it is checked for the logical coherence.
- It is checked that there is a reasonable coherence between the income and the uses of income.

### **3.3 Measures on accuracy**

See the description in part 3.1.

For the consumption the inaccuracy is greatest for goods seldom bought, for data from the diary rather than the interview, and for data from small subgroups of households rather than large.

## **4 Comparability**

### **4.1 Comparability over Time**

From the start of the 'new' survey in 1994 the data are highly comparable.

It should be noticed that the data to one year's update is collected in 3 years. When next year's update is computed it is done by changing the oldest year from last year's update with a new year. This means that in 2 different year's versions just 1/3 of the households are changed. When comparing data from different years it is therefore advised always to go at least 3 years back.

Comparison back in time is hampered, as the definitions and classifications have been widely changed.

### **4.2 Comparability with other Statistics**

The classifications and definitions used are aimed to be as comparable as possible with the national accounts. But the methods, etc., in these two kinds of statistics are very different.



The classification of consumption is based on the international COICOP classification, which is also used in compiling price indices.

It is difficult to conduct comparisons with the general population statistics and other register-based statistics, as the household definition in the survey is different: In the survey the household definition is the economic unit, which is decided by the household members themselves, while in the general population statistics the household definitions are derived from the administrative registers-based information.

#### **4.3 Coherence between provisional and final statistics**

Only final figures are published.

### **5 Accessibility**

#### **5.1 Forms of dissemination**

General publication in

- *Nyt fra Danmarks Statistik* (News from Statistics Denmark)
- *Indkomst, forbrug og priser* (Income, consumption and prices) appearing in the series *Statistiske Efterretninger* (Statistical News).
- *Statistical Yearbook* [www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook.aspx](http://www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook.aspx)
- [www.statbank.dk/fu1](http://www.statbank.dk/fu1), [fu2](http://www.statbank.dk/fu2), [fu3](http://www.statbank.dk/fu3) and [fu4](http://www.statbank.dk/fu4).

To this is added e different publications focusing on specific topics, e.g. education and consumption, geographic difference in consumptions patterns and the difference between households with high and low income.

EUROSTAT publishes data from the Danish surveys as well as from the other Member States about every 5th year. These EUROSTAT publications do not always use exactly the same definitions, etc., as in the national publications.

#### **5.2 Basic material: Storage and usability**

The data from the survey is stored as SAS-datasets on the PC-network.

On the basis of the micro data it is possible to make special tabulations, etc.

It is also possible for researchers to have access to the micro data under certain restrictive conditions.

#### **5.3 Documentation**

A detailed documentation is published in the book 'Forbrugsundersøgelsen. Metodebeskrivelse. Fra dataindsamling til offentliggørelse'. Statistics Denmark 1999. ("The Household Budget Survey. Methodological Description. From Data Collection to Publication").

A special paper (in Danish) on the possibilities of obtaining statistics on smaller geographic areas can be obtained by contacting the Section for the Household Budget Survey.

#### **5.4 Other Information**

Other information can be obtained by contacting the Section for the Household Budget Survey.

### **6. Supplemental documentation**

No supplemental documentation is available

# **Census of Buildings**

This declaration was transferred to the Internet on 7 July 2006

## **0 Administrative Information about the Statistical Product**

### **0.1 Name**

Census of Buildings, 1st January

### **0.2 Subject Area**

Construction and housing

### **0.3 Responsible Authority, Office, Person, etc.**

Manufacturing and Construction  
Karina Buchwald, tel. +45 39 17 33 17, e-mail: kbu@dst.dk

### **0.4 Purpose and History**

The purpose is to produce statistics on the stock of buildings.  
This was made possible when the Central Register of Buildings and Dwellings Register was established, April 1, 1977.

Statistics Denmark published statistics on the stock of buildings April 1, 1977 and January 1, 1981. From January 1, 1986 Statistic Denmark has produced figures every year.

### **0.5 Users and Application**

Users: Municipalities, counties, government departments, private and semi-private organisations and firms, the news media and private persons.  
Application: Public and private planning, education and public debate.

### **0.6 Sources**

The Central Register of Buildings and Dwellings and the Central Population Register. The Central Register of Buildings and Dwellings consists of a register on building permits, new buildings, extensions and alterations and a register on buildings with building inspectors' certificate.

The Central Register of Buildings and Dwellings was established in 1977 (Act No. 243 of May 12, 1976). The purpose was to make coherent registrations of building and dwelling conditions for public planning and administration. The main purposes were the public tax assessment of real property and the population and housing census. For mainly municipal uses, several other purposes have later been added to the use of the register.

### **0.7 Legal Authority to Collect Data**

Acts on Statistics Denmark

### **0.8 Response burden**

No response burden.

### **0.9 EU Regulation**

Necessary according to Council Regulation (EC) No. 2223/96

## **1 Contents**

### **1.1 Description of Contents**

The statistics are compiled from a full-scale census, 1st January. Small buildings (e.g. garages, carports, outhouses) are excluded from the stock.

The statistics describe the stock of buildings analysed by type of use, size, ownership, heating installation, roof covering and external cladding materials, water and effluent installations, and year of construction.

### **1.2 Statistical Concepts**

The statistical unit is the building.

A building is defined as a coherent construction built on a separate real property, and which is mainly constructed using uniform materials and with has approximately the same number of floors. Furthermore, there must be entrance facilities from the street.

#### *Building spaces:*

All measurements of living and working spaces include the exterior walls or for attics a line in the floor drawn where the distance between the roof and the floor is 1,25 metre. Attic spaces, not usable for living space or business space (not usable attic) and

space of semi-basements are not registered.

The *building ground space* (area built on) is equal to the groundfloor space. The space of open terraces and open balconies is excluded from the building ground space.

*Space above the ground* equals the sum of storey space (attic space and basement attic are excluded).

The *potential utilized attic space* is the sum of the utilized attic space and the unutilised attic space.

The *basement space* includes the space of floors below the groundfloor.

The *total building space* equals the sum of the space of the groundfloor, the potential utilized attic space and the basement space.

The *living space* is the part of the total building space used for residential purposes.

The *business space* is the part of the total building space used for industrial, commercial and institutional purposes.

*Main use of the building:*

The actual use is registered. If the building is used for several purposes, the use taking up the greatest space is registered. The registration makes it impossible to split up buildings used for offices and buildings used for commercial purposes.

*External cladding materials:*

External cladding materials are the materials used for the outside surface of the building. For example, a building with a concrete wall and a facing wall constructed by bricks will be registered as bricks. If several exterior walls materials are used, the material taking up the greatest space is registered.

## **2 Time**

### **2.1 Reference Period**

The reference period is 1st January.

### **2.2 Date of Publication**

Due to possible delays owing to changes before January 1 but registered within a 3-month period after January 1, the production time is estimated at 6-7 months after the reference period.

### **2.3 Punctuality**

Usually no delays

### **2.4 Frequency**

Yearly.

## **3 Accuracy**

### **3.1 Overall accuracy**

A survey of the overall accuracy of the Central Register of Buildings and Dwellings has never been conducted. But the degree of unknown variables is small.

According to the rules and regulations laid down by the Ministry of Economics and Business Affairs, public authorities and owners of buildings are asked to provide information for maintaining the register. Owners are obliged to ensure that real and actual figures are continuously supplied. At the same time, the extensive administrative use of the register by the municipalities also insures a high data quality.

### **3.2 Sources of inaccuracy**

The Central Register of Buildings and Dwellings Register was established in 1977 by compiling information collected from owners of real property. Figures on living space and time of construction for older buildings may be subject to errors. Especially in cases where the building has not later been involved in an administrative building or development case. This is, of course, due to the lack of accurate data by the owners as far back as 1977.

### **3.3 Measures on accuracy**

None

## **4 Comparability**

#### 4.1 Comparability over Time

With the following exception the data are consistent back to January 1, 1986.

From 1981-1987 the type of ownership was not maintained by linking data with the Real Property Taxation Register, but only due to the municipal administration of building and development cases.

#### 4.2 Comparability with other Statistics

A complete comparability with the statistic of constructions is, for several reasons, not possible:

- The statistics on the buildings stocks contain information on the number of buildings and the total building space January 1, indicating knowing the construction year of the buildings. The difference in the number of buildings and total building space between two years is a net figure (registration and deregistrations). The statistics on constructions give a gross figure for the number of new buildings and their total buildings space.

If no building permit has been obtained, changes in information, e.g. between occupations for residence or non-residence, is undertaken directly in that part of the Central Register of Buildings and Dwellings which comprises building inspectors' certificate.

#### 4.3 Coherence between provisional and final statistics

Only final statistics are published

### 5 Accessibility

#### 5.1 Forms of dissemination

Continuous publications: The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark), in *Byggeri og boligforhold* (Construction and housing) appearing in the series *Statistiske Efterretninger* (Statistical News).

Yearbooks: The Statistical Yearbook and in the Statistical Ten-Year Review.

Website: [www.statistikbanken.dk](http://www.statistikbanken.dk)

#### 5.2 Basic material: Storage and usability

The following information for buildings is stored on magnetic tape:

Information on identification and geographic divisions:

Address (municipality no., road no., house no./-letter, floor, door no.)

Property identification

Building identification

Postal no. (from January 1, 1986)

Parish no. (from January 1, 1986)

Town no. (from January 1, 1986)

Information on building:

Main use (all-year residence, production, office, trade and commercial use, cultural use, education and hospitals, leisure)

Year of construction

Type of heating installation

Type of roof and external cladding materials

Spaces in square metres

Number of dwellings in the building

Number of floors

Information on property:

Type of ownership

Water and effluent installations

This information can be combined in a variety of ways intended for for different statistical purposes and analyses.

#### 5.3 Documentation

The variables and recordlayout are documented in Danish in the TIMES database established by Statistics Denmark. The documentation is, however, only available in Danish and can be found on [www.dst.dk](http://www.dst.dk) under "dokumentation".

Documentation for each dwelling variable is also given in a Danish manual "BBR instruks" (only available in Danish) prepared by the National Survey and Cadastre. The manual can be found on the following website (National Agency for Enterprise and Construction) [www.ebst.dk](http://www.ebst.dk) under "Bolig", "BBR", "BBR-loven".

#### 5.4 Other Information

Other information is not available.

## 6. Supplementary Documentation

No supplementary documentation is available

# Construction

This declaration was transferred to the Internet on 20 December 2005

## 0 Administrative Information about the Statistical Product

### 0.1 Name

Construction

### 0.2 Subject Area

Construction and housing

### 0.3 Responsible Authority, Office, Person, etc.

Manufacturing and Construction

Erik Nielsen, tel. +45 39 17 35 41, e-post: eni@dst.dk

### 0.4 Purpose and History

The purpose is to produce statistics monitoring total construction activity (measured by total floor area) and total residential construction (measured by numbers of dwellings). It is possible to monitor many aspects of the construction activity, but the statistics are mainly published in accordance with some main categories: Type and use of building and state of the building project (permitted, started, completed and under construction).

Information on residential construction is available from 1876 for the municipality of Copenhagen, for the municipality of Frederiksberg from 1886, for provincial towns from 1916, for parishes with larger urban areas from 1929 and for all Denmark from 1950. Estimates on floor area were not established until the end of the Second World War. Since 1980, the statistics have been compiled on the basis of the Central Register of Buildings and Dwellings (BBR).

### 0.5 Users and Application

The statistics have three main purposes: planning, market analyses and analyses of main indicators.

The primary use of the statistics is to monitor trends in the market for construction. These trends are among other things used in public debates concerning national economic matters.

The statistics are used by a wide range of users, from both the private and the public sector. From the private sector users are mainly large companies and business organisations, while mainly ministries and municipalities represent the public sector.

### 0.6 Sources

The construction statistics are compiled on the basis of data extracted from the Central Register of Buildings and Dwellings, which was established in 1977 (Act No. 243 of May 12, 1976) and put into service from 1980. For updating a building statistics register Statistics Denmark receives monthly data from the Central Register of Buildings and Dwellings.

### 0.7 Legal Authority to Collect Data

Subsection 1 of section 6 of the Act on Statistics Denmark and the Act of BBR (no. 406 of 28. May 2003).

### 0.8 Response burden

As the BBR is an administrative register, there is no response burden.

### 0.9 EU Regulation

Council Regulation (EU) no. 1158/2005 amending Council Regulation of May 19, 1998 on Main Indicators. According to these regulations construction permits for residential buildings and for non-residential buildings are required. The reference period is minimum every 3 months.

The Regulations had replaced a Directive from February 13, 1978.

## 1 Contents

### 1.1 Description of Contents

The construction statistics are compiled on the basis of data extracted from the registers on buildings and dwellings.

The statistics are based on building permits, etc. compiled by the municipalities, when construction results in an increase of the floor area or the number of dwellings. The statistics show the state of the building projects (permitted, started, completed and under construction) with information on type of building and type of ownership. Because of delays in the municipalities'

registrations in the Central Register of Buildings and Dwellings provisional figures are published, which give an estimate of the construction activity.

## 1.2 Statistical Concepts

The data reported by the municipalities are based on the actual building permits, which implies that in cases where a building permit is not required data are not reported. The National Agency for Enterprise and Construction decide the extent and requirements. For more information on variables and their definitions, see [www.ois.dk](http://www.ois.dk).

The statistics monitor all building permits, which increase the floor area or the number of dwellings. Building projects are grouped by their state:

- Building permits: The permit given by the municipality for starting a construction within a given period. The building permit will be annulled, if the construction is not started within a year. Some construction did not require a building permit, but only a notification. In statistical context, the building permit and the notification are the same
- Start of construction: The date for the physical start of the construction. For non-residential buildings used for agricultural purposes etc. and small buildings (garages, carports and outhouses) the date of the building permit and the date of the construction started are similar. This kind of building is treated less strictly according to the Act.
- Completion of construction: A certificate for use or provisional use is given or for reasons where the construction is completed and no certificate is needed.
- Under construction: A building stock of building activities, which have started but not yet completed at a certain time (normally, at the end of the reference period).

The Central Register of Buildings and Dwellings monitors 3 units:

- Property
- Building
- Unit in Building

*The property unit* identifies the public tax assessment of real property. *The building* is defined as a coherent construction built on a separate real property, and which is mainly constructed using uniform materials and with approximately the same number of floors. Furthermore, there must be entrance facilities from the street. *A unit* in a building is defined as one or several coherent rooms etc. used for residential or non-residential purposes. It is decisive that the unit can be independently addressed.

The statistical unit for construction statistics is the building. The property unit is used for identification and the units in the buildings submit figures on floor area and numbers of dwellings.

The unit of counting is the floor area or dwelling. Buildings are in some cases equal to building permits:

- The statistics use different terms for spaces. The most important terms are: The *total building space* equaling the sum of the space of all floors, the potentially utilized attic space but not the basement space and the *building ground space* (area built on), which is equal to the ground floor space.
- The term dwelling is delimited by the unit in a building, which is an all-residential unit, a combined residential and non-residential unit or a room (with a unique address.). The basic point is, that the dwelling shall be sanctioned to be used throughout the year

In the Central Register of Buildings and Dwellings each building permit has several variables with information. The most important variables are:

- *Main use of the building*: The actual use is registered. If the building is used for several purposes, the use accounting for the greatest space is registered. The classification has 5 classes and 27 objects. The classes are residential buildings (weekend cottages excluded), production buildings, warehouses farm buildings, industry and manufacturing buildings, public works etc., buildings for administration and trade, transport, personal services, buildings for cultural purposes plus institutions and other buildings.
- Type of builders: Private, housing societies and public builders (determined by the ownership).
- Construction materials: external cladding, type of roof and type of heating.
- Geography: Counties and municipalities.

The purpose is to monitor quarterly construction activities in terms of absolute figures. The statistics are estimated using monthly data from the Central Register of Buildings and Dwellings. During the time of producing the statistics Statistic Denmark has noted that there are delays in the municipality's data registrations. This makes it necessary to estimate provisional figures to be used for measuring construction activities. See 3.1.

There are delays when the monthly data received contain information concerning the previous months.

The quarterly publications also contain a seasonally adjustment of the four main time series: started and completed floor area and started and completed dwellings.

## 2 Time

### 2.1 Reference Period

The time of reference is the dates of the states of the building projects, e.g. the date of commencement of the construction

activity. The statistics are quarterly.

## **2.2 Date of Publication**

The statistics are published quarterly (contain figures for both months and quarters). The quarterly statistics are published in the middle of May, August, November and February.

## **2.3 Punctuality**

The quarterly statistics are published according to schedule.

## **2.4 Frequency**

The quarterly statistics are published about 1½ months after the referencequarter.

## **3 Accuracy**

### **3.1 Overall accuracy**

A survey of the overall accuracy of the statistics has never been conducted.

The main source of inaccuracy is the delays in the municipality's data registrations in the Central Register of Buildings and Dwellings. The estimates made by Statistics Denmark attempt to address this problem :

- The state of the building permit.
- Floor area or number of dwellings.
- The classification: Use of Building.
- New building or conversion of buildings, etc.
- The classification: Ownership
- The raising-factors are re-assessed annually

An ongoing revision at the times of publication, taking into account the delays observed.

For each state of building project a raising-factor is estimated using analyses of regression for delays observed in the last 5-6 years. These raising-factors are re-assessed yearly. The most recently final annual statistics are included in the basis of compilation basis, and the oldest statistics are omitted.

No estimate is made for the geography and the number of buildings.

Statistics Denmark has conducted a survey of the statistical accuracy which shows that:

- The estimated number of dwellings have a higher quality than the total construction measured by floor area.
- The highest delay is observed for the state of the building project: Started construction.
- Typically, it takes 7-8 months before the estimates reach an acceptable quality for the start of constructions (total figures) for a given month. It takes 3 months for the state Completion of the construction activity (total figures).

### **3.2 Sources of inaccuracy**

There are several sources of inaccuracy in estimating the provisional figures for construction activities.

The two main sources of inaccuracy are:

1. The observed delays in the municipality's registrations. It shows that there is no constant pattern, caused by several different reasons, e.g. lack of resources, inexpedient administration and owners' delay in reporting data to the municipalities. The latter circumstance is especially a problem for the start of constructions and because of the special administrations for buildings used for farming and small buildings, where only a registration of the start the construction is needed.

2. A problem related to the method of estimation:

The chosen method of estimation needs the capacity to catch the full effect on the fluctuations in the market in the short run.

Experience shows that the higher construction activities, the more delays and vice versa. This is the reason why the methods in the short run give an under-estimation of the activity in a period of high activity and an over-estimation in a period of low activity.

### **3.3 Measures on accuracy**

For the time being there is no estimates for the accuracy. The objective for the estimates of the activity is plus/minus 5% compared to the first published figures.

## 4 Comparability

### 4.1 Comparability over Time

Datacomparability over time is only possible from the year 1980.

Before 1980 we have different geographic degrees of coverage and some differences in definitions. For the completed construction activities, estimates are available:

- January 1950 - March 1960: The metropolitan area plus the 5 largest towns and their suburbs (degree of coverage: around 35%).
- April 1960 - December 1968: The metropolitan area plus the 18 largest towns and their suburbs (degree of coverage: around 50%).
- January 1969 - March 1970: Urban areas with more than 10,000 inhabitants (degree of coverage: around 50%).
- April 1970 - December 1972: Urban areas (degree of coverage: around 70%).
- January 1973 - December 1979: All Denmark (degree of coverage: 100%)

Furthermore, for the year 1979 the statistics of construction activities, based on questionnaires, are compared with the statistic based on the Central Register of Buildings and Dwellings. The new method proved to have 20% more floor area and 5% more dwellings, measuring the start of constructions.

### 4.2 Comparability with other Statistics

The only statistics where comparability is possible are the statistics on the building stock and the housing censuses.

Because of several differences complete data comparability is not possible:

- The problem of delays in the construction statistics.
- The registrations of burnt and demolished buildings are not complete in the construction statistics. The statistics on constructions give a gross figure for the number of new dwellings and new floor area. The housing censuses give net figures
- Comparing the housing censuses and the construction statistic the definition of dwellings differs. The housing censuses include buildings and units of buildings which are linked to an address in the Central Population Register (CPR). The construction statistics include dwellings registered as all-year-residential-dwellings, e.g. excluding weekend cottages.
- Furthermore, data registered directly in the building stock, without building permits, are observed.

### 4.3 Coherence between provisional and final statistics

Because of the problem of delays, there are not produced final figures.

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark), in *Byggeri og boligforhold* (Construction and housing) appearing in the series *Statistiske Efterretninger* (Statistical News), in *Konjunkturstatistik* (Main Indicators), in the Statistical Yearbook and in the Statistical Ten-Year Review and also in Statbank Denmark.

### 5.2 Basic material: Storage and usability

Every month the Local Government Data Centre a batch of the data reported in the previous to the Central Register of Buildings and Dwellings is submitted by the Local Government Data Centre to Statistics Denmark. On the basis of these data the Buildings Statistics Register operated by Statistics Denmark is continuously updated.. The register keeps information on all construction activities in progress, including all buildings registered as completed.

The Buildings Statistics Register stores the following information:

- Information on identification and geographic location
- The state of the building permit
- Type of use of dwelling
- Type of ownership
- Type of heating installation
- Number of dwellings/rooms
- Type of roof and external cladding materials
- Spaces in square metres for residential and for non-residential purposes.
- Number of floors
- Toilet, bathing and kitchen facilities
- Etc.



### 5.3 Documentation

Documentation, on a detail level, is given in a Danish manual prepared by the National Survey and Cadastre (BBR-instruksen) or [www.ois.dk](http://www.ois.dk).

### 5.4 Other Information

### 6. Supplerende dokumentation

No supplementary information is available

## **Construction cost index for residential buildings**

**This declaration was transferred to the Internet on 15 December 2005**

### 0 Administrative Information about the Statistical Product

#### 0.1 Name

Construction cost index for residential buildings, new

#### 0.2 Subject Area

Construction and housing

#### 0.3 Responsible Authority, Office, Person, etc.

Manufacturing and Construction

Birgitte Lundstrøm, tlf 39 17 30 88, e-mail: [bls@dst.dk](mailto:bls@dst.dk)

Silvija Zivkovic, tlf 39 17 35 45, e-mail: [siz@dst.dk](mailto:siz@dst.dk)

#### 0.4 Purpose and History

The purpose of the construction cost index for residential buildings is to measure the development in construction costs.

The present construction cost index is published from the first quarter 2003 and replaces the former construction cost index which has been published from 1987 until the second quarter 2003.

#### 0.5 Users and Application

The construction cost index has two primary purposes. The index is used for contract regulation and to follow the economic development in construction costs.

The users of the construction cost index are construction organisations, contractors, building owners, lawyers, public authorities and the EU.

#### 0.6 Sources

The construction cost index is based on eight concrete buildings:

- Three one-family houses
- One terraced house
- One semi-detached house
- Three multi-family houses

The data for the eight types of buildings are obtained from five different contractors of different size and geographic location.

Prices for materials and equipment are mainly collected from the Price Index for Domestic Supply. The prices are collected every month and are collected from producers and importers, cf the declaration of contents for Price Index for Domestic Supply.

The prices for the total labour costs are mainly collected from the Indices of Average Earnings for the Private Sector. The prices are collected each quarter and refer to the second month of the quarter, cf the declaration of contents for Indices of Average Earnings for Private Sector.

#### 0.7 Legal Authority to Collect Data

Data are collected in accordance with the Act on Statistics Denmark.

#### 0.8 Response burden

There is no direct response burden since the data are collected by others.

#### 0.9 EU Regulation

Council Regulation (EC) No 1165/98 and Commission Regulation (EC) No 588/2001.

## 1 Contents

### 1.1 Description of Contents

The construction cost index for residential buildings is also divided into an index for one-family houses and one for multi-family houses. All indices are further more broken down into eight sub-indices by profession and six sub-indices by building parts. Both the total indices and the sub-indices are divided into material and labour costs.

Sub-indices by profession:

- Earth- and concrete work
- Concrete slab work
- Bricklaying
- Carpentry
- Joinery
- Painting
- Heating and sanitary engineering
- Electrical work

Sub-indices by building parts:

- Subgrade
- Raw buildings/carcass
- Completion of buildings
- Heating and sanitary installations
- Electrical and mechanical installations
- Fixtures

From the second quarter 2005 a special index for glazing is further more calculated. The index is not included in the construction cost index but is financed by the Glaziers organisation in Denmark.

### 1.2 Statistical Concepts

The construction costs index is based on eight actual building projects of different kinds:

- Three one-family houses
- One terraced house
- One two-family house
- Three multi-family houses

The buildings are typical of the present house building. They have been chosen on the basis of an analysis of the present house building from the Central Register of Buildings and Dwellings (BBR).

The building accounts for the eight buildings are obtained from five different contractors of different size and geographic location. A consulting engineer specialised in pricing have been involved in the further work with the building accounts.

The building accounts are prepared so that for each production part (e.g. installation of a concrete wall) it is stated which materials (e.g. concrete), which equipment (crane) and which work function (concrete slab work) that are involved and what the costs are.

To each material, equipment and work function a source of prices is attached.

The concept of material prices is until 2004 actual transaction prices ex producer/importer, excluding VAT and excise duties, and taking both general and specific discounts into consideration. From April 2004 the importers buying prices are collected instead of as previously the selling prices. The price concept for the importers is from here actual transaction prices c.i.f. excluding all duties and taxes on the goods.

The price concept of labour costs is the actual earnings plus other labour costs. The actual earnings include the employee's total earnings, including both the employer's and the employee's payments to the employee's pension scheme. Other labour costs include the part of the enterprises total labour costs that are not a part of the employees earnings such as social contributions, educational costs and other voluntary labour costs.

From the second quarter 2005 the method for calculating labour costs has been changed. Persons with great fluctuations in labour costs from one quarter to another are no longer included in the calculations. These great fluctuations are caused by special circumstances that should not have an influence on the calculation of labour costs.

The construction costs index illustrates the development of costs incurred by contractors in the construction process. It is a so-called input index and includes costs of materials, labour costs, installations, equipment, transportation, energy. On the other hand, the contractor's profit, fees for architects and engineers, costs for the building site and VAT are not included.

The index is calculated according to Laspeyres formula using fixed weights.

The construction costs indices for residential buildings in general, for one-family houses and for multi-family houses are divided into sub-indices by profession and by building parts. These sub-indices are further divided into materials and labour costs.

Sub-indices by profession:

- Earth- and concrete work
- Concrete slab work
- Bricklaying
- Carpentry
- Joinery
- Painting
- Heating and sanitary engineering
- Electrical work

Sub-indices by building parts:

- Subgrade
- Raw buildings/carcass
- Completion of buildings
- Heating and sanitary installations
- Electrical and mechanical installations
- Fixtures

From the second quarter 2005 a special index for glazing is further more calculated. The index is not included in the construction cost index but is financed by the Glaziers organisation in Denmark. The index is a weighted aggregate of indices for labour costs and costs of materials.

## **2 Time**

### **2.1 Reference Period**

The construction cost index for residential buildings is calculated quarterly for the 15th of February, 15th of May, 15th of August and 15th of November. The reference periods are, the 1st quarter by the 15th of February, the 2nd quarter by the 15th of May, the 3rd quarter by the 15th of August and the 4th quarter by the 15th of November.

### **2.2 Date of Publication**

The construction cost index for residential buildings is published quarterly at the beginning of March (4th quarter), the middle of June (1st quarter), the beginning of September (2nd quarter) and the beginning of December (3rd quarter).

### **2.3 Punctuality**

The statistics are generally published without delay in relation to the scheduled publication date.

### **2.4 Frequency**

The statistics are published every quarter.

## **3 Accuracy**

### **3.1 Overall accuracy**

The index is based on the development of about 200 representative goods which is split up into about 20 work functions, about 170 types of materials and about 15 types of equipment. To each representative goods a number of prices/goods are attached. The representative goods are chosen from the building accounts for the eight buildings and are chosen according to a principle of importance and representativity.

### **3.2 Sources of inaccuracy**

The construction cost index for residential buildings covers the typical house building in Denmark. The eight concrete buildings have been chosen on the basis of an analysis of the typical house building from the Central Register of Buildings and Dwellings (BBR).

Prices for materials and equipment are mainly collected from the Price Index for Domestic Supply, cf. the declaration of contents for Price Index for Domestic Supply. The prices for the total labour costs are mainly collected from the Indices of Average Earnings for the Private Sector, cf. the declaration of Indices of Average Earnings for the Private Sector. All prices are collected by questionnaires.

When calculating the development in construction costs, only materials, equipment and persons that are present in two consecutive quarters are included.

The collected data are subject to different types of practical controls, by an investigation of the collected data.

### 3.3 Measures on accuracy

Measures on accuracy are not available.

## 4 Comparability

### 4.1 Comparability over Time

It is possible to chain and compare the new construction cost index for residential buildings with the former construction cost index. However, when comparing the two indices it should be borne in mind that it is not the development of prices for similar buildings that are compared but different kinds of buildings that are constructed using different techniques, materials and in periods with different legal demands. This means that not only the weighting scheme but also the methods for collecting prices and calculating the indices are different.

*There have been changes the following years:*

The first construction cost index was published in 1920 and was an *index for smallholding* (indeks for husmandsbrug). The index had base year in 1914. The house was not very well described. Only that it contained 3 rooms, kitchen, laundry and stable. Because of that there were great inequalities in the data reported by the cost surveyors.

In 1926 a new collection of information about a specific type of house was started. By that means it was possible to follow the price development independent of any improvements of the furniture in the house. This index was revised in 1959 when it was decided to use a farmhouse and a farm building from a type book of the ministry of agriculture. 1959 was base year. Calculation of this index was finished in 1970.

In 1940 a new monthly index for a block of flats was published. This index should measure the development in the costs of residential construction. Base year for this index was 1939. This index was replaced in 1955 by a quarterly index. The weighting scheme of the quarterly index was established on an index house. This index house was a residential construction in 3 storeys with 6 staircases and 36 apartments. In this index 1955 was base year. It was still calculated in 1972 for the sake of long-term contracts even if new indices were published from 1969 and 1971. These two new indices were construction cost indices for one-family houses and a block of flats. As a new concept there were calculated indices by profession and by building parts.

The former construction cost index replaced the two indices for one-family houses and a block of flats in 1989. 1987 is base year. The change from two to one index was made because there was no longer any significant difference between the method in construction and choice of materials.

The present construction cost index is once again divided into an index for one-family houses and one for multi-family houses and thus meets the demands from the users of the index. 2003 is base year.

*Differences in classification:* As mentioned above only one total construction cost index was published until the publication of the two indices for one-family houses and a block of flats in 1969 and 1971. Hereafter, indices were calculated by profession and by building parts.

*Differences in the concept of price:* The monthly construction cost index published from 1939 to 1955 was calculated on the basis of information from the Wholesale price index about 20 of the most important construction materials. The labour costs were calculated on the basis of changes in the collective agreed wages in the construction industry. The index included in this way the direct expenses and excluded cost of engineers and architects. In 1955 the concept of price was changed. After this Statistics Denmark collected prices for 132 of the most important or most representative materials. The collected prices were net prices i.e. the invoice prices the master had to pay the supplier of materials excluding general discounts and any profits and including any given duty (i.e. including purchase tax (oms) per 1.8.1962 and VAT per 3.7.1967). The labour costs were calculated on the basis of the current price list in the provinces. The price list was based on collective agreements including social contributions among other things allowance for public holiday.

In the two indices published from 1969 to 1989 a larger number of representative goods were used than in the earlier indices. The material cost index was calculated on the basis of gross prices excluding VAT. The material costs excluded masters fee and other profits. The labour cost index was calculated on the basis of price lists in the different construction trades.

The material cost index in the former construction cost index from 1987 was calculated on the basis of list prices and gathered information on producer prices deducted general discounts. The calculation of labour costs was made on the basis of collective agreement wages including compulsory employers' contributions. The former index is comparable with the indices from 1968 and because of the parallel calculation of the indices in the period from 1987 to 1989 it is possible to regulate contracts back to 1968.

The material cost index in the present construction cost index is calculated on the basis of prices collected from the Price Index for Domestic Supply where both general and specific discounts are deducted. The labour cost index is calculated on the basis of the Indices of Average Earnings for the Private Sector which contains information on each employees earnings etc.

#### **4.2 Comparability with other Statistics**

The prices for the total labour costs are mainly collected from the Indices of Average Earnings for the Private Sector. The development of the indices of labour costs is not directly comparable to the development of the average earnings for the construction sector.

This is among others caused by the fact that in the Indices of Average Earnings all employees that are employed in enterprises belonging to the construction sector including engineers and administrative personnel are included. In the construction cost index only persons that are directly involved in building activities are included.

In the construction cost index only employees that are present in two consecutive quarters are included. A number of persons are thus excluded compared to the Indices of Average Earnings.

Further more, in the construction cost index the different professions are included in the index with different weights depending on the profession's importance for the total construction costs. The development of some professions' average earnings consequently has greater impact on the index than others.

Prices for materials and equipment are mainly collected from the Price Index for Domestic Supply. These indices are not directly comparable to the indices for materials in the construction cost index. This is caused by the fact that to each representative goods a number of selected goods are attached and by the fact that for calculating each material index a number of representative goods are included using different weights.

#### **4.3 Coherence between provisional and final statistics**

Only final statistics are calculated

### **5 Accessibility**

#### **5.1 Forms of dissemination**

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark and in *Byggeri og boligforhold* (Construction and housing) which appears in the series *Statistiske Efterretninger* (Statistical News) and in *Konjunkturstatistik* (Main indicators) which appears in the series *Statistikservice* (Statistics Service).

Yearly publications: *Statistical Yearbook* and *Statistical ten-year review*

Statistics are available from Statbank Denmark at: ([www.statistikbanken.dk](http://www.statistikbanken.dk)): BYG4, BYG41 and BYG5.

Furthermore, it is possible to subscribe to the construction index by postcards.

#### **5.2 Basic material: Storage and usability**

Basis material is stored in a register.

The system for calculating the indices is constructed so that it is possible to produce special indices. The basis in the system is the BC/SfB-Building Board, and within the framework of this Board there are vast opportunities of constructing special customised indices: Examples are:

- Index for a specific building part
- Index for one of the eight buildings
- Index for other kinds of buildings, i.e. office buildings and universities

#### **5.3 Documentation**

A further description of the method used is available in:

The publication *Bygge- og anlægsvirksomhed* (Construction industry) which appears in the series *Statistiske Efterretninger* (Statistical News) no: 2003:33.

#### **5.4 Other Information**

Further information on the construction cost index for residential buildings is available in Danish at [www.dst.dk/byggeindeks](http://www.dst.dk/byggeindeks).

### **6. Supplementary documentation**

No supplementary documentation is available

# **Construction cost index for civil engineering projects**

This declaration was transferred to the Internet on 15 December 2005

## **0 Administrative Information about the Statistical Product**

### **0.1 Name**

Construction cost indices for civil engineering projects

### **0.2 Subject Area**

Construction and housing

### **0.3 Responsible Authority, Office, Person, etc.**

Manufacturing and Construction

Birgitte Lundstrøm, phone 39 17 30 88, e-mail: bls@dst.dk

Silvija Zivkovic, phone 39 17 35 45, e-mail: siz@dst.dk

### **0.4 Purpose and History**

The purpose of the indices is to show trends in prices for work performed by different contractors in civil engineering projects.

In 1959 the first cost index for road fund work was compiled. In 1967 the index for motorway work was added. In 1976 four new indices were compiled:

Earthwork, etc.

Asphalt work

Concrete structures

Iron and steel structures

The cost index for roads was published for the first time in 1995. This index has replaced the two indices for motorways and highways.

From 1 January 2001 are the titles: Construction cost indices for road work changed to Construction cost indices.

### **0.5 Users and Application**

Construction cost indices for civil engineering projects are primarily used in regulating construction contracts.

### **0.6 Sources**

The indices are calculated on the basis of information from the price index for domestic supply and prices for haulage/traffic performance by lorries and wage rate agreements between the Danish Association of Builders and the Danish Specialized Workers' Union.

### **0.7 Legal Authority to Collect Data**

Data are collected in accordance with the Act on Statistics Denmark.

### **0.8 Response burden**

There is no direct response burden since data are collected by others.

### **0.9 EU Regulation**

Necessary on grounds of Council Regulation 2223/96.

## **1 Contents**

### **1.1 Description of Contents**

The indices show trends in prices for work performed by different contractors in civil engineering projects: earthwork, etc. asphalt work, concrete structures, iron and steel structures and sub-indices for haulage/traffic performance by lorries and machinery and equipment. Trends in costs for construction of roads are also monitored.

March 1995 = 100.

### **1.2 Statistical Concepts**

The compilation of construction cost indices is based on prices of materials and labour costs.

*Prices of material:* are calculated on the basis of information collected for compilation of the price index for domestic supply and prices for haulage. Up till April 2004 the price concept is producers' prices, exclusive of VAT and excise duties, whereas customs duties, import duties and importers' profits are included. From April 2004 the importers buying prices are collected instead of as previously the selling prices. The price concept for the importers is from here actual transaction prices c.i.f.

excluding all duties and taxes on the goods.

*Labour costs* relate to wage rates fixed by collective agreements between the Danish Association of Builders and the Danish Specialized Workers' Union. The agreements include social costs, i.e. employers' compulsory contributions.

The published index includes unemployment benefits and excludes unemployment benefits, respectively. Average unemployment benefits paid are not calculated, owing to the great variety of tasks, which are, to a smaller or greater extent, dependent on weather conditions, etc.

*Weighting:* The weighting is prepared in collaboration with the Danish Roads Directorate.

The weighting for the construction cost index for roads is prepared in collaboration with the Danish Roads Directorate on the basis of an analysis of various completed motorway and highway projects. The index is compiled as a simplified form of the other two road indices, as the construction costs indices for earthwork, asphalt work and concrete structures are used directly in compiling the new index. The weighting of the three indices is as follows: 38.0 pct., 41.5 pct. and 20.5 pct.

The weighting of the indices for earthwork, asphalt work, concrete structures, iron and steel structures is prepared on the basis of an analysis of completed and ongoing construction work. In agreement with the Danish Roads Directorate, State Railways and the Danish Association of Builders the weighting is finally determined.

For all indices there are sub-indices covering labour costs and a variety of main commodity groups. However, these indices are not published.

The sub-index for haulage/traffic performance by lorries include among others initial costs for lorries, payment of interest, vehicle excise duty, insurances, wages, administrative costs, fuel, tyres and repairs.

*Compilation method:* The indices are of the Laspeyres' type, i.e. indices with constant weights. Compilation of the indices is based on index values for labour costs and for each representative commodity. These indices are weighted and a composite index is thus obtained.

## **2 Time**

### **2.1 Reference Period**

Construction cost indices for civil engineering projects are compiled quarterly at the end of March, June, September and December.

### **2.2 Date of Publication**

The statistics are published quarterly at the beginning of February, May, August and November.

### **2.3 Punctuality**

The statistics are usually published without delay in relation to the scheduled date.

### **2.4 Frequency**

The statistics are published quarterly.

## **3 Accuracy**

### **3.1 Overall accuracy**

The statistics are primarily compiled on the basis of data from the price index for domestic supply and wage rates fixed by collective agreements between the Danish Association of Builders and the Danish Specialized Workers' Union. Figures on the statistical reliability are not estimated.

### **3.2 Sources of inaccuracy**

The weighting of the indices for earthwork, asphalt work, concrete structures, iron and steel structures is prepared on the basis of an analysis of completed and ongoing construction work. In agreement with the Danish Roads Directorate, State Railways and the Danish Association of Builders the weighting is finally determined.

The weighting for the construction cost index for roads is prepared in collaboration with the Danish Roads Directorate on the basis of an analysis of various completed motorway and highway projects.

See otherwise the declaration of content for the price index for domestic supply.

### **3.3 Measures on accuracy**

Figures on statistical errors are not available.

## 4 Comparability

### 4.1 Comparability over Time

The first cost index for road fund work was compiled for March 1959. A new weighting was established in March 1968.

The index for motorway work was compiled for the first time for March 1967. March 1965 was equal to 100.

In March 1971 when Statistics Denmark began to publish the road indices, the weighting of the indices was adjusted. Simultaneously, the year 1968 = 100.

The calculation of labour costs in the road indices was originally based on actual labour costs. In March 1976 Statistics Denmark began to calculate construction cost indices in which labour costs were based on the collective wage rate agreements. To harmonize the labour cost concepts of the indices, the labour costs in the road indices have also been calculated on the basis of collective agreements since 1976. 1968 is still = 100.

The cost index for roads was published for the first time in June 1996. The aim of the new index was to simplify the index-calculation, as the new index is in future to replace the two indices for motorways and highways. Part of this process of simplification is that the construction cost indices for earthwork, asphalt work and concrete structures are used directly in compiling the new index.

The base year of the construction cost indices as well as the indices for road fund work was changed to end-March 1995 = 100. The indices were until June 2002 also published with the base year 1968.

From 1 January 2001 are the titles: Construction cost indices for road work changed to Construction cost indices.

### 4.2 Comparability with other Statistics

Prices for materials and equipment are mainly collected from the Price Index for Domestic Supply. These indices are not directly comparable to the sub-indices of the construction cost index. This is caused by the fact that these sub-indices are calculated on basis of detailed indices that are not published in the Price Index for Domestic Supply.

### 4.3 Coherence between provisional and final statistics

Only final figures are compiled.

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics appear in *Nyt fra Danmarks Statistik* (News from Statistics Denmark), in *Byggeri og boligforhold* (Construction and housing) appearing in the series *Statistiske Efterretninger* (Statistical News), in *Konjunkturstatistik* (Main Indicators), in the series *Statistikservice* (Statistics Service).

Annual publications: Statistical Yearbook and Statistical Ten-Year Review.

Statbank Denmark ([www.statistikbanken.dk](http://www.statistikbanken.dk)): BYG6 and BYG7

### 5.2 Basic material: Storage and usability

The primary data are stored in registers. Special processing and linkages of the data are not possible.

### 5.3 Documentation

Is irrelevant to the statistics.

### 5.4 Other Information

Is irrelevant to the statistics.

## 6. Supplementary information

No supplementary documentation is available



# **ICT expenditure**

This declaration was transferred to the Internet on 19 February 2007

## **0 Administrative Information about the Statistical Product**

### **0.1 Name**

ICT expenditure

### **0.2 Subject Area**

Service sector

### **0.3 Responsible Authority, Office, Person, etc.**

Service sector.

Natalia Cherevichenko, tel.: +45 39 33 67 , e-mail: nac@dst.dk

### **0.4 Purpose and History**

The purpose of ICT expenditure is to examine the extent of ICT expenditures in the private and public sector (state and municipalities). This survey contributes to the description of the information society.

ICT expenditure was conducted for the first time in autumn 2004.

### **0.5 Users and Application**

*Users:* Ministries, industry trade associations, private companies and students.

*Areas of use:* The governments annual ICT status report plus other ministerial publications, international comparisons, private market analysis, reports at institutions of higher education.

### **0.6 Sources**

The survey is based on a postal questionnaire.

### **0.7 Legal Authority to Collect Data**

The act on Statistics Denmark (Act No. 599 of 22 June 2000).

### **0.8 Response burden**

1.213 hours/355.000 DKK.

### **0.9 EU Regulation**

The European Parliament and the Council regulation (EC) No. 808/2004 of 21 April 2004.  
EFTL L 143, p. 49

## **1 Contents**

### **1.1 Description of Contents**

The survey examines ICT expenditure in enterprises and in the public sector (state and municipalities). Variables include hardware, pre-packaged and customised software, other ICT (telecommunication equipment, audio and video equipment and other ICT equipment), ICT services and external ICT training.

#### *Private sector*

For enterprises in the private sector, the total ICT expenditure is estimated by industry and size groups. Moreover, expenditure in the different sub-groups of ICT is estimated, see above.

#### *Public sector (state and municipalities)*

Concerning the state, total ICT expenditure and expenditure of the different sub-groups of ICT are estimated for ministerial departments, major agencies and universities. Regarding the municipalities, total ICT expenditure and expenditure by sub-group of ICT are estimated for all municipalities. Furthermore, ICT expenditure is also estimated for municipalities with less and more than 15,000 inhabitants, respectively.

### **1.2 Statistical Concepts**

Units and population.

#### *Private sector*

The total population consists of 17,000 private enterprises from the business register with at least 10 full-time employees. The majority of industries in the private sector and the financial sector are included in the population. The criterion of industries for being selected is, that they must be a part of The Industrial Accounts Statistics and/or that the industries are presumed to have substantial ICT expenditure. However, the following sectors are not included: Agriculture and electricity, gas, heat and

water supply. Moreover, fishing and mining industries are also excluded.

*Public sector (state and municipalities)*

The survey includes the majority of the institutions in the state and all the municipalities. Ministerial departments, major agencies and universities are included in the coverage of the state. The total population is identical with the population of the survey Use of ICT in the public sector.

Variables.

ICT expenditure including

- Hardware
- Telecommunication equipment
- Audio and video equipment
- Other ICT equipment
- Pre-packaged software
- Customised software
- ICT services
- ICT training

Own account software:

- Man-years spent on development of own account software
- Development of software for internal use
- Development of software for eksternal use
- Other, i.e. maintenance, support, repairs etc.

Statistical measurements.

ICT expenditure: The sum of expenditure for different ICT expenditure types.

Regarding own account software the sum of development for internal and external use plus other are estimated in proportion to the total number of man-years spent on developing own account software.

Groups.

*Private sector*

Most tables and charts are broken down by industry and size group. For industries, either the 9 or 27 grouping of Statistics Denmark are applied. Enterprise sizes, measured by number of full-time employees, are grouped in the following way: 10-49, 50-99 and 100+ employees.

*Municipalities*

Grouped by population: 0-14,999 and 15,000+

## **2 Time**

### **2.1 Reference Period**

*Private sector*

ICT expenditure follows in general the calendar year or the accounting year of which the closing of the accounts takes place between 1 May and 30 April. Latest survey round covers the period from 1 May 2004 to 30 April 2005, i.e. referred to as 2004 ICT expenditure.

*Public sector (state and municipalities)*

Calendar year. 2005 is the latest reference year.

### **2.2 Date of Publication**

ICT expenditure is published annually.

*Private sector*

Date of publication, i.e. the time that goes by between the end of the reference period and the publishing date is approx. 360 days.

*Public sector (state and municipalities)*  
Date of publication is approx. 195 days.

### **2.3 Punctuality**

The statistics are usually published without delay in relation to the scheduled date.

### **2.4 Frequency**

Annually.

## **3 Accuracy**

### **3.1 Overall accuracy**

As the survey is based on a sample in the private sector, all estimates are subject to inaccuracy in form of random variation. In particular, estimates broken down by industry and size must be regarded only as normative. However, the results of the public sector cover a substantial number of the total population.

It must be emphasized that enterprises, state and municipalities are asked to give a *best estimate* of ICT expenditure, which is due to the fact that ICT expenditure not always emerge from the financial statements of an enterprise or a public sector identity.

Sample inaccuracy for certain variables is calculated and indicated when results are published.

### **3.2 Sources of inaccuracy**

Coverage.

#### *Private sector*

In relation to the General enterprise statistics 2003 for firms in industries with turnover and export information, the industries and size groups in the survey covers approx. 72 per cent of total turnover and approx. 76 per cent of total employees. As such, not all industries from the General enterprise statistics are included. Moreover, firms with less than 10 employees are left out.

#### *Public sector (state and municipalities)*

101 returned questionnaires from state institutions enter into the final data set for the 2005 survey round. Correspondingly, 233 out of 271 municipalities enter into the 2005 data set. For the remaining 38 municipalities no information has been used (loss). Where no information is available, imputation is made such that a missing municipality is identical to a municipality with the same characteristics concerning inhabitants as of January 1st and geographical position.

Sample.

#### *Private sector*

The sample is drawn among private firms (legal units) with at least 10 full-time employees. The majority of industries in the private sector are represented. Approx. 17,000 firms make up the total population. The 2004 sample constitutes of 3,076 enterprises and is based on an average of the optimal allocations for different ICT expenditure types. The sample is stratified by industry and size.

#### *Public sector (state and municipalities)*

Within the state all ministerial departments, agencies and universities are included. All municipalities are selected.

Data collection.

Data are collected through an annual postal questionnaire.

Loss.

Regarding the enterprises the response rate is 97 per cent for the 2004 survey round. Loss is due to bankruptcy, take over, etc.

For the 2005 survey round the response rate for the state and the municipalities is 96 per cent and 86 per cent, respectively. Loss is due to missing or not applicable responses.

Processing.

Quality check of the collected data is conducted including sum check of the ICT expenditure. Comparison with previous data collections is also carried out where possible. Respondents are contacted for further clarification if found relevant.

Model assumptions.

#### *Private sector*

2.919 responses have been used in the 2004 grossing up procedure. The results are grossed up so that they correspond to full coverage of the surveyed industries and size groups. Each enterprise in the sample is assigned a weight such that it represents

a certain number of enterprises in the population. The grossing up procedure is based on the number of enterprises, employment and turnover within employment groups.

*Public sector (state and municipalities)*

No model assumptions have been used and no grossing up procedure is undertaken.

### **3.3 Measures on accuracy**

*Private sector*

Measures of inaccuracy for selected variables are published in *Statistical News, Service Sector*.

*Public sector (state and municipalities)*

There are no sampling errors as the statistics are compiled on the basis of a census, but due to non-response there is some inaccuracy in the estimated figures.

## **4 Comparability**

### **4.1 Comparability over Time**

*Private sector*

Comparing 2003 and 2004 estimates and taking the sample accuracy into account it cannot be concluded whether or not ICT expenditure has increased or decreased between these two years.

Furthermore, due to the cut-off in the population, an increase in ICT expenses can be caused solely by merging of smaller enterprises below the cut-off to a bigger company above the cut-off.

The method of selection has changed from 2003 to 2004. The sample in 2003 is based on a stratified proportional random selection by full-time employees and industries. The sample in 2004 is based on an average of the optimal allocations for different ICT expenditure types, cf. point 3.2. The 2004 sample is stratified by employment group and industry.

*Public sector (state and municipalities)*

There is no data collection for calendar year 2004.

The figures for 2005 are not directly comparable with 2003 for pre-packaged software and ICT services due to changes of definitions for these items. This also affects the comparability of the total ICT expenditure.

### **4.2 Comparability with other Statistics**

Comparable statistics are not available.

### **4.3 Coherence between provisional and final statistics**

Only final figures are published.

## **5 Accessibility**

### **5.1 Forms of dissemination**

*News from Statistics Denmark and Service Sector* (Statistical News)

Yearbook: Information Society Denmark.

Main results are accessible at Statistics Denmark's homepage [www.dst.dk/ict](http://www.dst.dk/ict).

### **5.2 Basic material: Storage and usability**

Basic material is stored electronically.

### **5.3 Documentation**

More detailed information about methodology is available in the final report in *Statistical News, Service Sector series*, 2006:42.

### **5.4 Other Information**

Other information is not available.

## **6. Supplerende dokumentation**

Til denne varedokumentation findes ingen supplerende dokumentation

## **EU-trade (intrastat)**

This declaration was transferred to the Internet on 1 March 2005

### **0 Administrative Information about the Statistical Product**

#### **0.1 Name**

EU trade (Intrastat)

#### **0.2 Subject Area**

External trade

#### **0.3 Responsible Authority, Office, Person, etc.**

External trade

Peter Ottosen, tel. +45 39 17 33 25, e-mail: pot@dst.dk

Marius Ejby Poulsen, tel. +45 39 17 30 21, e-mail: mep@dst.dk

#### **0.4 Purpose and History**

The statistics analyse the development in Denmark's trade in goods at a detailed commodity level (imports and exports) with the other Member States of the European Union.

The statistics were introduced at the beginning of the EC Single Market 1 January 1993. Previously, these flows of goods were analysed via customs and shipping documents reported by firms to the Customs and Tax Authorities (see declaration of contents for trade with non-EU-countries).

#### **0.5 Users and Application**

Public authorities, private organisations and firms, the news media, and private individuals. The detailed figures distributed by commodity-countries are used by trade and industry for market research.

#### **0.6 Sources**

Monthly reports from approx. 10,000 firms.

#### **0.7 Legal Authority to Collect Data**

Council Regulation (EEC) No 638/2004 of 31 March 2004 concerning statistics on the exchange of goods between Member States with later amendments and addenda, Act on Statistics Denmark, and Consolidated Act No 1495 of 16 December 2004 of the Ministry of Economic and Business Affairs.

#### **0.8 Response burden**

The response burden for 2003 has been estimated to amount to 125.7 mill. DKK or 423,491 hours.

#### **0.9 EU Regulation**

Council Regulation (EEC) No 638/2004 of 31 March 2004 concerning statistics on the exchange of goods between Member States with later amendments and addenda.

### **1 Contents**

#### **1.1 Description of Contents**

The statistics show Denmark's imports and exports of goods from/to the other European Union countries, distributed among partner countries and approx. 10,500 different goods recorded by value, net weight in kilograms and/or supplementary unit. Furthermore, unit value and volume indices are published at a more aggregated level (SITC-chapters, but not distributed among partner countries).

#### **1.2 Statistical Concepts**

The statistics are prepared on the basis of reports from Danish companies with total annual imports and/or exports of goods of DKK 1.6m and DKK 4.1m, respectively. The obligation to report is established for imports and exports separately.

For each commodity flow (imports or exports) and month, the following statistical information is gathered:

- Product code in accordance with the Combined Nomenclature CN
- Partner country (imports=country of consignment, exports=country of destination)
- Nature of transaction
- Invoice value in Danish kroner (whole numbers)
- Net weight in kilograms (whole numbers) and/or supplementary unit, e.g. litres, units (if indicated in CN).

The statistics are published at the most detailed level as sums of statistical value (estimated on the basis of the invoice value), net weight, and any supplementary unit for identical occurrences of product code and partner country, some types of transactions are, however, indicated separately (e.g. repair goods). Furthermore, quarterly unit value and volume indices are published at a more aggregated level (SITC-chapters, but not distributed among partner countries).

For each flow of goods (imports or exports), grouping is primarily made on commodity groups (e.g. all goods for which the first two digits are identical, i.e. the chapter level). For the grouping, different nomenclatures are used (KN, SITC rev. 3, BEC and KONJ).

## 2 Time

### 2.1 Reference Period

The month in which the goods are received (imports) or shipped (exports) from/to another European Union country.

### 2.2 Date of Publication

Aggregated statistics for selected countries and country groups and for aggregated commodity groups are published monthly approximately 6-7 weeks after reference period. Detailed statistics are published 11-12 weeks after reference month.

### 2.3 Punctuality

The Statistics are usually published without delay on the date published on Statistics Denmark's homepage, which is announced at least 3 months in advance.

### 2.4 Frequency

Monthly.

## 3 Accuracy

### 3.1 Overall accuracy

The first publications of the external trade figures are subject to considerable uncertainty, as approx. 20-30 per cent of the data material is either missing entirely or the quantity of imperfect data is so high that it cannot be included at the time of publication. To make up for this, supplementary estimates have to be made. The reliability of figures for a given month is greatly increased by later publications, as estimation is made for missing reports via VAT figures. The final total figures are considered very reliable.

### 3.2 Sources of inaccuracy

The figures for total imports and exports from/to European Union countries are considered to be of high quality in the final compilation as information can be added via estimation on the VAT return, which covers all transactions of goods between Denmark and the European Union countries. However, it cannot be excluded that companies give imperfect information on the VAT return.

At the detailed level, the reliability of the figures is affected by:

- No reports from companies below the threshold limits
- No response at all from the firms obliged to report, see table below
- Imperfect reports from the firms obliged to report
- Submission of inconsistent information: the relationship between value and net weight in kilograms and/or supplementary unit seems unlikely
- For reasons of resources, it is not possible to examine all reports where (probably) inconsistent information has been submitted.

Response rate for Intrastat

(100 pct. less no-response rate)

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	EU-import	EU-export
1993	91,7	93,5
1994	91,5	93,3

1995	91,3	93,2
1996	92,5	93,5
1997	91,9	95,2
1998	90,3	95,4
1999	90,0	94,3
2000	91,7	94,5
2001	90,4	95,6
2002	88,6	93,4
2003	89,7	94,8

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### 3.3 Measures on accuracy

The uncertainty with respect to the final imports and exports figures cannot be quantified, but various comparisons with alternative statistical sources does not indicate a systematic quality problem, please see the paper: *The Quality of the External Trade Figures*.

The uncertainty with respect to the detailed figures distributed by commodity-country is in the order of approx. 10% on average, corresponding to the supplement that is made to the reports from the VAT figures.

## 4 Comparability

### 4.1 Comparability over Time

Any gap in the time series as a result of changed collection methods etc. is adjusted for by estimation, which is the reason why the external trade figures are comparable over time.

It goes without saying that data comparability does not apply at the most detailed commodity level as the content of many product codes is changed over time.

### 4.2 Comparability with other Statistics

The external trade figures are comparable with several other sources:

- The partner country's recording of the same transaction (the mirror transaction). The comparison is hampered by differences in the level of value for the recording of imports and exports (cif and fob, respectively).
- Reports on European Union purchases and sales of goods on the VAT return. These statistics are not published, but are used in the continuous control of the reports to INTRASTAT.
- For the exports of industrial products with figures from the industrial statistics' recording of turnover in export markets. The comparison is made difficult by the fact that the industrial statistics' records are not distributed by country.

### 4.3 Coherence between provisional and final statistics

As the share of estimated figures is in the order of 20-30 per cent when the statistics are published for the first time, there are a number of deviations between the first and the final publication of external trade figures for any given month.

The inaccuracy on the provisional statistics can be illustrated by the difference between the first provisional statistics and the revised figures. Information on these revisions are presented in the table below for the latest final statistics - 2003.

Revisions (Mill. DKK), 2003

	Numeric	Actual	Numeric	Actual
Imports	--- Mill. DKK ---		-Percent	latest-
- INTRASTAT	26,636	-12,555	10.4	-4.9
- EXTRASTAT	2,552	-55	2.4	-0.1
- I alt	29,188	-12,611	8.1	-3.5
Exports				
- INTRASTAT	29,234	-16,945	10.5	-6.1
- EXTRASTAT	6,351	2,772	4.3	1.9
- I alt	35,585	-14,173	8.3	-3.3
Trade balance				
- INTRASTAT		-4,390		-19.7
- EXTRASTAT		2,828		6.6
- I alt		-1,562		-2.4

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark) (monthly), in the series *Statistiske Efterretninger* (Statistical News) (monthly), in the series *Statistikservice* (Statistics Service) (quarterly), in *Konjunkturstatistik* (Main Indicators) (monthly) and in StatBank Denmark (monthly).

Annual publications: *Statistical Yearbook*, *Statistical Ten-Year Review*, *Denmark's Imports and Exports of Goods* ("Danmarks vareimport og eksport") and *Statistics across Borders* ("Statistik uden grænser").

The external trade figures are published in the following way:

Publication	Frequency	Extent
NYT (NEWS) from Statistics Denmark	Monthly	Summary tables
Statistical News	Monthly	Detailed distribution among countries 2-digit commodity grouping Unit value and quantity indices



Statistics Service	Quarterly	Detailed figures by commodity-country
Denmark's Imports and Exports of goods	Annually	All countries, 2-digit SITC, total figures on 5-digit SITC
Statistical Yearbook	Annually	Approx. as in Statistical News
Statistical Ten-Year Review	Annually	Summary tables (also index)
Main Indicators	Monthly	Slightly more detailed than in NYT
StatBank Denmark	Monthly	Detailed figures by commodity-country
Statistics across Borders	Annually	Summary tables

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Access to data can be obtained in accordance with Statistics Denmark's standard terms for the relevant products.

Furthermore, data can be supplied by taking out a special subscription where subscribers receive selected data according to their requirements.

#### 5.2 Basic material: Storage and usability

In addition to the statistical material, cf. section 1.2, the basic material contains a range of identifier information (e.g. VAT registration no. ("SE-no.)) and a distribution by nature of transaction.

Particularly identifier information is well suited for linking data with other business statistics.

#### 5.3 Documentation

At the homepage of external trade ([www.dst.dk/udenrigshandel](http://www.dst.dk/udenrigshandel)) most documentation can be found.

The procedure used in compiling the external trade statistics is described in the text section of the annual publication.

The INTRASTAT system is described in: *Guide to INTRASTAT for 2003 ("Vejledning til INTRASTAT for 2003")*.

The quality of the figures is analysed in the paper: *The Quality of the External Trade Figures*.

The principles for compiling external trade statistics are laid down in the UN international guidelines: *International Merchandise Trade Statistics, Concepts and Definitions*, Statistical Papers, Series M no. 52, rev. 2 (United Nations, New York 1998). Also available in a Danish translation with comments, Danmarks Statistik: *Metodemanual for udenrigshandelsstatistik* (Copenhagen 1999).

#### 5.4 Other Information

The Danish external trade figures are accessible via various international publications, e.g from the OECD, the UN, the IMF and Eurostat, including Eurostat's COMEXT-database.

#### 6. Supplementary documentation

No supplementary documentation is available

## **Trade with non-EU countries**

This declaration was transferred to the Internet on 1 March 2005

### 0 Administrative Information about the Statistical Product

#### 0.1 Name

Trade with non-EU countries

#### 0.2 Subject Area

External trade

#### 0.3 Responsible Authority, Office, Person, etc.

External trade

Peter Ottosen, tel. +45 39 17 33 25, e-mail: pot@dst.dk  
Marius Ejby Poulsen, tel. +45 39 17 30 21, e-mail: mep@dst.dk

#### **0.4 Purpose and History**

The statistics analyse the development in Denmark's trade in goods at a detailed commodity level (imports and exports) with non-EU-countries (3rd countries). The statistics have been compiled regularly since 1838. Before the introduction of the EC Single Market 1 January 1993, the statistical system also covered trade in goods with Member States of the European Union.

#### **0.5 Users and Application**

Public authorities, private organisations, firms, the news media, and private individuals. The detailed figures for the commodity-country distribution are used by trade and industry for market analyses.

#### **0.6 Sources**

Customs and shipping documents (the Single Administrative Document) which are prepared in connection with imports and/or exports of all goods from/to countries outside the European Union.

#### **0.7 Legal Authority to Collect Data**

Council Regulation (EEC) No 1172/95 of 22 May 1995 concerning statistics relating to the exchange of goods by the Community and its Member States with non-member countries with later amendments and addenda, Act on Statistics Denmark, and Consolidated Act No 1495 of 15 December 2004 of the Ministry of Economic and Business Affairs.

#### **0.8 Response burden**

There is no response burden, as the statistics are based on customs and shipping documents.

#### **0.9 EU Regulation**

Council Regulation (EEC) No 1172/95 of 22 May 1995 on statistics relating to the exchange of goods by the Community and its Member States with non-member countries with later amendments and addenda.

### **1 Contents**

#### **1.1 Description of Contents**

The statistics show Denmark's imports and exports of goods from/to non-European Union countries. The statistics are distributed among partner countries (country of origin/country of consignment for imports, country of destination for exports) and approx. 10,500 different goods recorded by value, net weight in kilograms, and any supplementary unit (e.g. litres, units, or square metres). Furthermore, quarterly unit value and volume indices are published at a more aggregated level (SITC-chapters, but not distributed among partner countries). In addition, the external trade statistics for Greenland are published.

#### **1.2 Statistical Concepts**

The statistics are prepared on the basis of reports to the Central Customs and Tax Administration ("Told og Skat") in connection with imports and exports of goods to/from Denmark from/to non-European Union countries. All transactions in the imports must be declared while it is not mandatory to report transactions below the statistical threshold in the exports. Missing trade on the exports amount to less than 2 per cent of total 3rd country export and is estimated making the statistics complete. In the imports small transactions under the statistical threshold (DKK 7,500 and 1,000 kg for exports to Greenland and the Faroe Islands, the statistical threshold is DKK 3,000 and 1,000 kg) can be declared using a simplified declaration.

The external trade statistics for Greenland are prepared on the basis of the Danish figures for imports and exports from/to Greenland plus a supplement in the form of data collected by the Home Rule (local government) customs function.

For each commodity transaction (imports or exports) the following information, which is used in the external trade statistics, is collected:

- Product code in accordance with the Combined Nomenclature CN or TARIC (only imports)
- Partner country (country of origin/country of consignment for imports, country of destination for exports)
- Procedure code
- Statistical value in Danish kroner (whole numbers) (cif for imports and fob for exports)
- Net weight in kilos (whole numbers)
- Any supplementary unit, e.g. litres, units (if indicated in CN)
- The mode of transport at the border

Furthermore, a wide range of information is gathered which is primarily used for fiscal purposes.

The statistics are published at the most detailed level as sums of statistical value, net weight, and any supplementary unit for identical occurrences of product code and partner country transactions allocated to certain procedure codes (e.g. goods to/from repair and movements of goods between different stocks) are, however, indicated separately. Furthermore, quarterly unit value and volume indices are published at a more aggregated level (SITC-chapters, but not distributed among partner countries) -

however, this does not apply to the external trade statistics for Greenland.

For each flow of goods (imports or exports), the groupings are primarily allocated on the basis of commodity groups (e.g. all goods for which the first two digits are identical, i.e. the chapter level). Different commodity nomenclatures are used for the grouping (KN, SITC rev. 3, BEC and KONJ). Furthermore, figures are recorded for various groups of countries (EFTA, OECD, etc.)

## **2 Time**

### **2.1 Reference Period**

The month in which the commodity is released by the Central Customs and Tax Administration for imports or exports from/to a non-European Union country.

### **2.2 Date of Publication**

The statistics are published monthly. The external trade statistics for Greenland are, however, only published quarterly.

Published about 6-7 weeks after the expiry of the reference month in NYT (NEWS) and Statbank Denmark. The external trade statistics for Greenland are only published quarterly in the series Statistical News.

### **2.3 Punctuality**

The statistics are usually published without delay in relation to the scheduled date, which is announced at least 3 months in advance at Statistics Denmark's homepage.

### **2.4 Frequency**

Published monthly. The external trade statistics for Greenland are published quarterly.

## **3 Accuracy**

### **3.1 Overall accuracy**

The first publications of the external trade figures are subject to some uncertainty, as the number of imperfect items are so high that they cannot be included at the time of publication. Compensation for this is made by estimation. The reliability of figures for a given month is greatly increased by later publications. The final figures can be described as very reliable, both in terms of totals and at the detailed level.

### **3.2 Sources of inaccuracy**

The final total figures can be considered to be of almost optimum quality.

At the detailed level, the reliability of the figures is affected by:

- The verbal reported trade below the statistical threshold in exports are based on estimation
- Commodity distribution of transactions below the statistical threshold must be carried out by estimation.
- A certain bias suggesting that the import figures are of higher quality than the export figures is likely as import transactions are subject to extensive control measures compared to export transactions.

### **3.3 Measures on accuracy**

There are no figures for the uncertainty at the total level. However, the commodity distribution of transactions below the statistical threshold is presumably slightly imprecise. However, these items only cover approx. 2-4% of the total trade with non-European Union countries.

## **4 Comparability**

### **4.1 Comparability over Time**

Any gap in the time series as a result of changed collection methods etc. is adjusted for by estimation, which is the reason why the external trade figures are comparable over time.

It goes without saying that data comparability does not apply at the most detailed commodity level as the content of many product codes is changed over time.

### **4.2 Comparability with other Statistics**

The external trade figures are comparable with several other sources:

- The partner country's recording of the same transaction (the mirror transaction). The comparison is hampered by differences in the level of value for the recording of imports and exports (cif and fob, respectively).
- For the exports of industrial products with figures from the industrial statistics' recording of turnover in export markets. The comparison is made difficult by the fact that the industrial statistics' records are not distributed by country.

A quality report for external trade statistics are made. The latest report can be found on the homepage of external trade [www.dst.dk/udenrigshandelstal](http://www.dst.dk/udenrigshandelstal). The report is in Danish.

#### 4.3 Coherence between provisional and final statistics

A number of reports are faulty to such a degree that they cannot be included directly in the external trade statistics. If the error seems to be in value or quantity imputation is performed.

The inaccuracy on the provisional statistics can be illustrated by the difference between the first provisional statistics and the revised figures. Information on these revisions are presented in the table below for the latest final statistics - 2003.

Revisions (Mill. DKK), 2003

	Numeric	Actual	Numeric	Actual
	--- Mill. DKK ---		-Percent	latest-
Imports				
- INTRASTAT	26,636	-12,555	10.4	-4.9
- EXTRASTAT	2,552	-55	2.4	-0.1
- I alt	29,188	-12,611	8.1	-3.5
Exports				
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- EXTRASTAT	6,351	2,772	4.3	1.9
- I alt	35,585	-14,173	8.3	-3.3
Trade balance				
- INTRASTAT		-4,390		-19.7
- EXTRASTAT		2,828		6.6
- I alt		-1,562		-2.4

## 5 Accessibility

### 5.1 Forms of dissemination

The statistics are published in *Nyt fra Danmarks Statistik* (News from Statistics Denmark) (monthly), in the series *Statistiske Efterretninger* (Statistical News) (monthly), in the series *Statistikservice* (Statistics Service) (quarterly), in *Konjunkturstatistik* (Main Indicators) (monthly) and in StatBank Denmark (monthly).

Annual publications: *Statistical Yearbook*, *Statistical Ten-Year Review*, *Denmark's Imports and Exports of Goods* ("Danmarks vareimport og eksport") and *Statistics across Borders* ("Statistik uden grænser").

The external trade figures are published in the following way:

Publication	Frequency	Extent
NYT (NEWS) from Statistics Denmark	Monthly	Summary tables
<i>Statistical News</i>	Monthly	Detailed distribution among countries 2-digit commodity grouping Unit value and quantity indices
<i>Statistics Service</i>	Quarterly	Detailed figures by commodity-country
<i>Denmark's Imports and Exports of goods</i>	Annually	All countries, 2-digit SITC, total figures on 5-digit SITC
<i>Statistical Yearbook</i>	Annually	Approx. as in <i>Statistical News</i>
<i>Statistical Ten-Year Review</i>	Annually	Summary tables (also index)
<i>Main Indicators</i>	Monthly	Slightly more detailed than in NYT
<i>StatBank Denmark</i>	Monthly	Detailed figures by commodity-country
<i>Statistics across Borders</i>	Annually	Summary tables

Access to data can be obtained in accordance with Statistics Denmark's standard terms for the relevant products.

Furthermore, data can be supplied by taking out a special subscription where subscribers receive selected data according to their requirements.

### 5.2 Basic material: Storage and usability

In addition to the statistical material, cf. section 1.2, the basic material contains a range of identifier information (e.g. VAT registration no. ("SE-no.)) and a distribution by procedure code, container code, etc.

Particularly identifier information is well suited for linking data with other economic statistics.

### 5.3 Documentation

At the homepage of external trade ([www.dst.dk/udenrigshandel](http://www.dst.dk/udenrigshandel)) most documentation can be found.

The procedure used in compiling the external trade statistics is described in the text section of the annual publication.

The quality of the figures is analysed in the paper: *The Quality of the External Trade Figures* ("Kvaliteten af udenrigshandelstallene").

The principles for compiling external trade statistics are laid down in the UN international guidelines:

*International Merchandise Trade Statistics, Concepts and Definitions*, Statistical Papers, Series M no. 52, rev. 2 (United Nations, New York 1998). Also available in a Danish translation with comments, Danmarks Statistik: *Metodemanual for udenrigshandelsstatistik* (Copenhagen 1999).

### 5.4 Other Information

The Danish external trade figures are accessible via various international publications, e.g. from the OECD, the UN, the IMF and Eurostat, including Eurostat's COMEXT-database.

### 6. Supplementary documentation

No supplementary documentation is available

## 11.3 Statistical surveys and other data sources used for the transition from GDP to GNI

The main data source used for the transition from GDP to GNI is the rest of the world account, which in Denmark is consistent with the balance of payments statistics.

### **Balance of payments**

#### **0 Administrative Information about the Statistical Product**

##### **0.1 Name**

Balance of payments

##### **0.2 Subject Area**

National accounts and balance of payments

##### **0.3 Responsible Authority, Office, Person, etc.**

*Balance of payments*

Poul Uffe Dam, tel.: +45 39 17 34 91, e-mail: pud@dst.dk

Jytte Jeppesen, tel.: +45 39 17 34 92, e-mail: jjj@dst.dk

##### **0.4 Purpose and History**

The balance of payments describes the economic movements across the national border. The balance of payments for Denmark has been compiled since 1934.

Today the main emphasis is placed upon income and expenditures in relation to foreign countries. Originally the most important item was the foreign debt, which is compiled as part of the International Investment Position (IIP). Since 1991 the IIP has been compiled by Danmarks Nationalbank.

##### **0.5 Users and Application**

Traditionally, the balance of payments statistics form part of the most important background information in the planning of the economic policy of the country. Thus, one important user is the Ministry of Finance.

The balance of payments statistics is used in the compilation of the national accounts.

The balance of payments statistics constitutes Denmark's contribution to the compilation of the EU Balance of payments.

##### **0.6 Sources**

The statistics are prepared on the basis of the foreign trade statistics, cf. *Trade with the rest of the world, EU trade(Intrastat)*, and the settlements statistics of Danmarks Nationalbank (the Danish central bank). Supplementary information from public authorities and business enterprises is used cf. *General Government Finances and Account Statistics for shipping*. Some of the sources are used as they stand while others are used as indicators of development.

##### **0.7 Legal Authority to Collect Data**

Not relevant for these statistics.

##### **0.8 Response burden**

The direct response burden is nil as all information is collected through other statistics, cf. 0.6.

##### **0.9 EU Regulation**

The rest of the world account of the national accounts, which is derived from the balance of payments, is prepared in accordance with Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community (ENS95)(OJ L 310 30.11.96, p.1).

#### **1 Contents**

##### **1.1 Description of Contents**

The balance of payments records the value of the economic transactions which are made within a given period between the Danish balance of payments area and the rest of the world.

## **1.2 Statistical Concepts**

The balance of payments can be divided into three main accounts: the current account showing income and expenditure, the capital account and the financial account showing how a deficit/surplus on current account is financed/spent or transactions within these two accounts. The following main items are entered under current account: *goods, services, income and current transfers*.

The most frequently used statistical measure is the current account balance.

Compiling the Danish balance of payments has from 1949 been adapted to the form used by the IMF with the limitations imposed by the primary statistical material. In 1998, the compilation was adapted to the IMF balance of payments manual from 1993 (the fifth manual).

The balance of payments is compiled according to the double-entry system. Every transaction involves both a credit entry and a debit entry. The employment of this principle implies that the balance of payments, i.e. all three main accounts taken together, will always balance, any differences between the totals being attributable to statistical discrepancies, the so-called "errors and omissions".

## **2 Time**

### **2.1 Reference Period**

In the balance of payments statistics data are published quarterly. However, main balances are published monthly.

### **2.2 Date of Publication**

The statistics are published approx. 40 days after the end of the reference period.

### **2.3 Punctuality**

The balance of payments statistics are normally published without delays as to the preannounced dates.

### **2.4 Frequency**

Information about the balance of payments is published monthly.

## **3 Accuracy**

### **3.1 Overall accuracy**

The calculation of the balance of payments is mainly based on the settlements statistics from Danmarks nationalbank (the Danish Central Bank) and the foreign trade statistics.

The settlements statistics consist of a total count of payments to/from the rest of the world based on reports submitted by banks etc. For payments above a certain threshold, purpose and partner country are recorded. The payments are recorded at the time of payment and for goods alone also after the time of transaction. Thus both pre-payments and deferred payments are included in the monthly statistics.

For trade with other European Union Member States (the intra-EU trade), the foreign trade statistics are based on questionnaires filled in by Danish companies whose annual trade with foreign countries exceeds specific threshold values. Adjustment for this is made for companies whose trade is below these threshold as well as, among other things, for erroneous reports. Trade with countries outside the European Union (the extra-EU trade) is based on a total count of all trade on the basis of customs data.

On the basis of information from other statistics, for instance the annual accounts statistics of the shipping trade and of international cooperation (EU, developing countries etc.), revisions are made to the balance of payments statistics, cf. 0.6.

### **3.2 Sources of inaccuracy**

The uncertainty in respect of the calculation of Denmark's balance of payments has increased after the introduction of the Single Market in the European Union in 1993, cf. 3.1 on foreign trade statistics. The uncertainty has, among other things, been associated with an increasing, but unstable difference between the total payments for goods according to Danmarks Nationalbank's settlements statistics and the values in the foreign trade statistics. This problem has since 1999 been thoroughly investigated at the most detailed level, leading to an improvement of quality of both statistics.

### **3.3 Measures on accuracy**

Are not calculated.

## 4 Comparability

### 4.1 Comparability over Time

Actual balance of payments statements have been prepared since 1934. From 1949 the statements have been adapted to the form used by the IMF with the limitations imposed by the primary statistical material. Up to 1997 there are very long series for the main items without any noticeable breaks.

In 1998, the compilation was adapted to the IMF balance of payments manual from 1993 (the fifth manual). Back data to 1988 for the most important items are available.

Breaks:

- The treatment of interest payment related to financial derivatives has been adapted according to new international guidelines as from the year 1997. This implies modest changes for investment income, net, but considerable changes for the gross amounts.
- A major investigation of available sources for the main item *services* has resulted in a considerable increase of both imports and exports of services as from the year 1999, the current account balance remaining unchanged. This change of level was mainly related to the item other services, which subsequently was published in four subitems. This change of level amounts to around DKK 30 bn. It has been made possible by more detailed information provided by the settlements statistics, cf. 3.1.

### 4.2 Comparability with other Statistics

The balance of payments statistics are compiled according to the standards outlined in the IMF Balance of Payments Manual, fifth edition, 1993, cf. 4.1.

Imports in the foreign trade statistics are calculated cif, while they are calculated fob in the balance of payments by deducting freight and insurance charges. But otherwise *goods* in the balance of payments statistics are delimited slightly differently than in the foreign trade statistics due to different definitions.

### 4.3 Coherence between provisional and final statistics

After the first publication of the balance of payments, it is continuously adjusted, as supplementary or adjusted statistical material appears. This supplementary information means that the final calculation of the balance of payments is only prepared about 2-3 years after the expiry of the reference year.

In order to evaluate the reliability of the preliminary figures, the first release of the current account balance of a quarter is compared with the latest available release of the said quarter. A comparison by December 2005 for the period 2000 Q1 - 2004 Q4 shows a bias in the first compilation of DKK -0.7 bn and an average deviation of DKK 2.2 bn. These figures shall be related to a current account total quarterly income of about DKK 200 bn.

## 5 Accessibility

### 5.1 Forms of dissemination

Current publications: *News from Statistics Denmark, National Accounts and Balance of Payments (Statistical News)* ("*Nationalregnskab og betalingsbalance*") and *Statistics Denmark's databank*.

Annual publications: *Statistical Yearbook* and *Statistical 10-year Review*.

### 5.2 Basic material: Storage and usability

No particular storing of basic data is conducted, cf. 0.6.

### 5.3 Documentation

Summary information on the preparation of the balance of payments is given in connection with the publication of the balance of payments. A comprehensive documentation is provided by the European Central Bank (<http://www.ecb.int/pub/pdf/other/bop05en.pdf>).

Older, more detailed information is found in "Methodology for Denmark's Balance of Payments", Eurostat, 1985 (sold out). The documentation is presented in Danish as well as in English and French.

### 5.4 Other Information

No further published material is available.

## 6. Supplementary documentation

No supplementary documentation is available