

**Documentation of statistics for  
Quarterly National Accounts 2018 Quarter 4**

## 1 Introduction

The quarterly national accounts present an overall picture of the short-term economic development within the framework of a system of coherent definitions and classifications.

## 2 Statistical presentation

The National Accounts are designed to present a complete picture of the economy. The National Accounts provide the conceptual and actual tool to bring to coherence all economic activity and development in Denmark.

### 2.1 Data description

The National Accounts statistics adopt two ways of describing economic flows, a functional view presented in the national accounts and an institutional view presented in the sector accounts.

The economic transactions are described with special reference to product flows in the form of output, intermediate consumption, household consumption, non-profit institutions serving household consumption and government consumption expenditure, import and export of goods and services, gross fixed capital formation and changes in inventories. These flows are compiled in current prices as well as chained values. In addition, information is given on incomes generated in the form of wages and salaries and gross operating surplus plus information on employment. Information on the above-mentioned items is available at a disaggregated level. All quarterly series are available seasonal adjusted as well as non-seasonal adjusted. For more about the seasonal adjusted data see [Chain-linking and seasonal adjustment of the quarterly national accounts](#).

The main aggregates from the Production account and Generation of income account are compiled for 13 industries plus a special item for the activities in general government (memorandum item). Figures on employment are also available at this level. *Main aggregates* refer to: output, intermediate consumption, gross value added, compensation of employees and gross operating surplus and mixed income. The two first-mentioned items are also compiled at chained values. In addition, information in current prices and chained values is for household consumption expenditure divided into 13 consumer groups and gross fixed capital formation divided into 7 types of investment products plus a special item for gross fixed capital formation in general government (memorandum item).

In the sector accounts the point of reference is the decision-making units. The decision-making units are split into the following sectors: Non-financial corporations, financial corporations, general government, households and non-profit institutions serving households. Transactions in products are an integral part of the sector accounts though the greatest importance is given to distributive transactions such as wages and salaries, property income, taxes and social contributions and benefits. The sector accounts are available in non-seasonal adjusted current prices only.

See [documentation of statistics for employment, hours worked and compensation of employees in National Accounts](#) for a description of National Accounts series concerning employment, hours worked and compensation of employees.

## 2.2 Classification system

Statistics Denmark's industrial classification DBO7, which is a Danish version of the EU NACE, rev. 2. and the UN's ISIC, rev. 4, contains a number of standard classifications: the 127, 36, 19, and 10 classifications.

The quarterly national accounts classification of 13 industries corresponds - with few deviations - to the 10 standard classification. For this reason, national accounts figures can be compared to and used in connection with other statistics that are based on the DBO7-standard classifications.

Internationally there is a high degree of comparability with the national accounts of other countries because the Danish national accounts are compiled in accordance with the definitions in the European System of National Accounts ESA2010.

## 2.3 Sector coverage

The entire economy.

## 2.4 Statistical concepts and definitions

Account Concepts: The national accounts are compiled in accordance with the definitions in the EU's "European System of National and Regional Accounts - ESA2010", which is a European version of the UN's "A System of National Accounts 2008". The main structure of the national accounts consists of a number of consolidated accounts for the economy as a whole which are called: Goods and services account, Production account, Generation of income, distribution of income and spending of income accounts, Capital account and Rest of the world account. The Goods and services account shows the value of the total supply of goods and services in the form of output and imports of goods and services. The supply is equivalent to the value of the total use of goods and services distributed between intermediate consumption, final consumption expenditure, gross fixed capital formation, changes in inventories and exports of goods and services. The central variable GDP - Gross Domestic Product - can be found in the Production account. The Generation of income, distribution of income and spending of income accounts show the incomes, which are a result of the Danish value added tax, to which these incomes accrue, and how they are used. The Capital account shows how gross savings have been spent on gross fixed capital formation and changes in inventories, resulting in net lending/net borrowing. This, in turn, corresponds to the balance in the Rest of the world account, which largely corresponds to the balance of the current account in the balance of payments. In the institutional system, the above mentioned accounts (except the Goods and services account) are divided into the following institutional sectors: Non-financial enterprises, Financial enterprises, Government services, Households, Non-profit Institutions serving Households (NPISH) and Rest of the world account.

## 2.5 Statistical unit

For the compilation of output, intermediate consumption, taxes linked to production and subsidies, wages and salaries, employment, fixed capital formation and depreciation, the statistical unit is the local kind-of-activity unit. For the compilation of distributive and financial transactions, which cannot be divided up unambiguously among the individual kind-of-activity units belonging to a decision making unit (enterprise), the unit is the larger institutional unit, which in most cases will be the same as the legal unit which is the enterprise.

## **2.6 Statistical population**

All units generating Danish economic activity.

## **2.7 Reference area**

Denmark.

## **2.8 Time coverage**

Quarterly national accounts data from 1 quarter 1990 and quarterly sector accounts from 1 quarter 1999.

## **2.9 Base period**

Chain volume indices are compiled with 2010 as reference year (chained values, 2010-prices), which can be used to calculate the real economic growth of the economy - i.e. inflation-adjusted growth. For more information see [Chain-linking and seasonal adjustment of the quarterly national accounts](#).

## **2.10 Unit of measure**

DKK million.

## **2.11 Reference period**

The reference time for the economic flows of the quarterly national accounts is the quarter in which the economic activity occurs.

## **2.12 Frequency of dissemination**

The quarterly national accounts are published eight times a year. The quarterly sector accounts are published four times a year.

## **2.13 Legal acts and other agreements**

Council Regulation (EU) No 549/2013 of May 21 2013 on the European system of national and regional accounts in the European Union (ESA2010) (OJ L 174 26.06.2013, p. 1).

## **2.14 Cost and burden**

No direct burden of respondents.

## **2.15 Comment**

Francois Lequiller and Derek Blades (2014), *Understanding national accounts: Second Edition*, OECD publishing.

### 3 Statistical processing

The quarterly national accounts are compiled on the basis of all relevant short-term statistics describing parts of the economy. Combining these statistics with the definitions and classifications of the national accounts and the detailed annual national accounts makes it possible to balance all the information regarding the supply and use to a complete picture of the economic activity. For more information detailed descriptions of sources and methods can be found in [Danish Quarterly National Accounts](#) and [Danish Sector National Accounts](#).

#### 3.1 Source data

Current short-term statistics describing areas within the economy and employment. Among the most important sources can be mentioned:

- Foreign trade statistics
- Balance of payments
- VAT-statistics
- Retail turnover statistics
- Turnover in manufacturing
- Producer and consumer price indices
- Employment statistics
- Quarterly non-financial accounts for general government
- Financial statistics

#### 3.2 Frequency of data collection

The quarterly national accounts are compiled eight times a year. The quarterly sector accounts are compiled four times a year.

#### 3.3 Data collection

Not relevant for these statistics.

#### 3.4 Data validation

The data validation is carried out in 3 steps according to the main process of setting up the quarterly national accounts.

1. In the first step a thorough validation of primary data sources is carried out. For more information reference is made to the specific declarations of statistics of each primary source.
2. In the second step an initial data validation is carried out, when the data is processed for use with the definitions and classifications in the national accounts.
3. In the final step a validation of the data sources is carried out, when balancing the the supply and use in the economy.

#### 3.5 Data compilation

The data compilation is described together with data validation.

### **3.6 Adjustment**

Corrections to data are made as part of the data validation processes described above.

The seasonally adjusted estimates are produced using the X12-ARIMA software package. The seasonal adjustment specifications are evaluated once a year. The series in current and constant (chain linked) prices are seasonally adjusted by the indirect method and subsequently aggregated to the level of detail for publication. The discrepancies, which are created by the indirect method, are not balanced.

The annual evaluation of the seasonal adjustment specification includes an assessment for Easter effects. However experience shows that it is difficult to estimate the exact effect, especially in those years where Easter changes between the first and second quarter. Therefore the seasonal adjustment must be interpreted carefully. Read more about the seasonal adjustment of the quarterly national accounts in the memo (only available in Danish) [Det sæsonkorrigerede BNP](#).

## **4 Relevance**

As the basic data for everyone dealing with socioeconomic conditions like economic ministries, organizations, the press, the financial sector, larger companies, students and researchers. Quarterly national accounts are used as the basis for analyzing the economic development. National accounts continuously evaluate feedback from users via national and international forums.

### **4.1 User Needs**

Important users are economic ministries, organizations, the press, the financial sector, larger companies, students and researchers. Quarterly national accounts are used as the basis for analyzing the economic development.

### **4.2 User Satisfaction**

See [User committee for Economic Statistics](#) (available in Danish only).

### **4.3 Data completeness rate**

The National Accounts is in alignment with the following regulations:

- Council Regulation (EU) No 549/2013 of May 21 2013 on the European system of national and regional accounts in the European Union (ESA2010) (OJ L 174 26.06.2013, p. 1).
- Commission Decision 98/715 Official Journal of the European Communities, 16 December 1998, L 340, p. 33.

## **5 Accuracy and reliability**

The quarterly national accounts are compiled using a number of primary statistics. Inaccuracy in these primary statistics as well as the adjustment of the statistics to conform to the national account framework will affect the reliability. However, the juxtaposition in the framework of the national accounts will contribute to reduce the inaccuracy.

### **5.1 Overall accuracy**

Based on past experience the uncertainty of GDP growth is assessed to generally +/- 0.5 percentage points. The latest figures for revisions of the quarterly GDP growth rates can be found here (available only in Danish ): [Revisioner af det kvartalsvise nationalregnskab](#).

### **5.2 Sampling error**

Not relevant for these statistics.

### **5.3 Non-sampling error**

See Overall accuracy.

### **5.4 Quality management**

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

### **5.5 Quality assurance**

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

### **5.6 Quality assessment**

The quarterly national accounts are compiled using a number of primary statistics. Inaccuracy in these primary statistics as well as the adjustment of the statistics to conform to the national account framework will affect the reliability. However, the juxtaposition in the framework of the national accounts will contribute to reduce the inaccuracy. Based on past experience the uncertainty of GDP growth is assessed to generally +/- 0.5 percentage points. Figures for revisions of quarterly GDP growth rates can be found here (available only in Danish): [Revisioner af det kvartalsvise nationalregnskab](#). The ESA 2010 regulation requires Eurostat to undertake quality assessments of reported data in accordance with the ESA transmission program. The starting point for this is in the individual nation's own quality reports, which are not independently published by Eurostat. These [reports](#) are prepared annually.

### **5.7 Data revision - policy**

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

## **5.8 Data revision practice**

Quarterly national accounts are compiled in a number of versions for a quarter. Quarterly national accounts and sector accounts are consistent with the latest final annual accounts which are available approximately 3 years after the calendar year. A calendar over the planned releases for National Accounts is available (only in Danish) at <http://dst.dk/nationalregnskab>.

## **6 Timeliness and punctuality**

The quarterly national accounts are published first time 60 days after the end of the quarter and in a revised form 90 days after the end of the quarter. The quarterly sector accounts are published 90 days after the end of the quarter.

The statistics are published according to schedule.

### **6.1 Timeliness and time lag - final results**

The quarterly national accounts are published first time 60 days after the end of the quarter and in a revised form 90 days after the end of the quarter. The quarterly sector accounts are published 90 days after the end of the quarter.

### **6.2 Punctuality**

The statistics are published according to schedule.

## **7 Comparability**

The time series in the quarterly national accounts are consistent with the annual national accounts.

### **7.1 Comparability - geographical**

Internationally there is a high degree of comparability with the quarterly national accounts of other countries, because the Danish national accounts are compiled in accordance with the definitions in the European System of National Accounts ESA2010.

### **7.2 Comparability over time**

It is a fundamental idea when compiling national accounts compilation that the figures to the largest possible extent should be comparable over time. This implies e.g. that new sources always have to be adapted to the concepts of the national accounts, and that changes of existing sources cannot be seen directly as changes of variables and concepts in the national accounts statistics.

### 7.3 Coherence - cross domain

Statistics Denmark's industrial classification DBO7, which is a Danish version of the EU NACE, rev. 2. and the UN's ISIC, rev. 4, contains a number of standard classifications: the 127, 36, 19, and 10 classifications. The classifications in DBO7 can be aggregated into the 13 industries used by the quarterly national accounts in the same way as the 117 industries used in the final annual national accounts can be aggregated into the 13 industries. The quarterly national accounts figures for industries can therefore be compared to and used in connection with other statistics that are based on the DBO7-standard classifications. However as the result of adjustments to the framework of the national accounts, there is no direct comparability with the sources used for the quarterly national accounts.

### 7.4 Coherence - internal

There is by definition full internal consistency in the national accounts.

## 8 Accessibility and clarity

- News from Statistics Denmark (Nyt fra Danmarks Statistik): [Kvartalvist nationalregnskab](#).
- Statistical News (Statistiske Efterretninger, Nationalregnskab og offentlige finanser).
- The annual publication National Accounts (Nationalregnskab).
- Data in [Statbank Denmark](#).

### 8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

### 8.2 Release calendar access

The Release Calendar can be accessed on our English website: [Release Calendar](#).

### 8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

### 8.4 News release

News from Statistics Denmark (Nyt fra Danmarks Statistik): [Kvartalvist nationalregnskab](#).

### 8.5 Publications

Statistical News (Statistiske Efterretninger, Nationalregnskab og offentlige finanser).

The annual publication National Accounts Statistics (Nationalregnskabsstatistik).

### 8.6 On-line database

Data in [Statbank Denmark](#).

### **8.7 Micro-data access**

The basic material used for compiling the quarterly national accounts is saved to a large extent, but detailed non-published information is only available to a limited extent for a fee.

### **8.8 Other**

Internal delivery of data to ADAM (macro econometric model of Statistics Denmark)

### **8.9 Confidentiality - policy**

Not relevant for these statistics.

### **8.10 Confidentiality - data treatment**

Not relevant for these statistics.

### **8.11 Documentation on methodology**

Detailed descriptions of sources and methods can be found in [Danish Quarterly National Accounts](#) and [Danish Sector National Accounts](#) and [Danish GDP and GNI, Sources and Methods 2012](#).

See [documentation of statistics for employment, hours worked and compensation of employees in National Accounts](#) for a description of National Accounts series concerning employment, hours worked and compensation of employees.

### **8.12 Quality documentation**

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

## **9 Contact**

The administrative placement of this statistics is in the division of National accounts. The persons responsible are:

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