

# QUALITY DECLARATION

## National Accounts, quarterly and annual estimates

### **Subject area**

National Accounts, quarterly and annual estimates

### **Statistical area**

National Accounts

### **Product code**

NR0103

### **Reference time**

2018 quarterly estimates

2016 annual estimates

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## Quality of the statistics

### 1 Relevance

#### 1.1 Purpose and information needs

##### 1.1.1 Purpose of the statistics

The purpose of the National Accounts (NA) is to provide a comprehensive description of the scope, structure and development of the Swedish economy. The Swedish economy consists of Swedish units' economic activities and transactions between Swedish and non-resident units. The description should be conducted in a systematic way in a system of accounts and comply with the rules set out in the European System of National and Regional Accounts (ESA 2010), which by law is mandatory in the EU Member States, and in supplemented guidelines. Regulating national accounts in the European Union is essential for achieving comparability between Member States.

ESA 2010 regulates all parts of the National Accounts, including the financial and regional accounts, which are independent subject areas (statistical products). The subject area National Accounts, quarterly and annual estimates includes product and real sector accounts.

The main aggregate in the product accounts is the gross domestic product (GDP). GDP is a measure of all goods and services produced in a country during a certain period. With the production approach and measured at market prices, the GDP is the sum of values added generated by all Swedish units' production activities, plus the net of product taxes less subsidies on products. Values added are reported by industry.

Measured in the same way, the GDP can also be defined using the expenditure approach, and is then reported on Swedish units' consumption for final use, gross investment, plus exports less imports. GDP is also reported using the income approach, that is, based on income generated by production: wages and salaries, social insurance contributions, taxes on production and imports less corresponding subsidies, gross operating surplus and mixed income.

The real sector accounts report income distribution and income expenditure by institutional sector, in which the final balance consists of financial accumulation.

##### 1.1.2 User information needs

NA is used as a basis for analysing the scope, structure and development of the Swedish economy, and as such, provides a basis for economic policy and business assessments and decisions. In addition, the statistics are used for administrative purposes, for example, as a basis for determining the EU contribution and monitoring EU member states' compliance with the Maastricht criteria.

Compared with the quarterly estimates, annual estimates are based on more comprehensive and detailed information. This means that the annual estimates are suitable for the latter uses, that is, for administrative purposes,

for which the level is of primary importance, as well as for analyses of the structure of the economy.

Regardless of usage, there is a need for accurate and comparable data; for many users, the fact that there are time series that allow comparisons over time and with other countries is essential, as well as the fact that there are time series that are adjusted for seasonal, calendar, and price variations. In addition, many users need to have the information as quickly as possible. This applies in particular to the quarterly estimates, the main use of which is to assess the current economic situation. A special quick calculation (flash estimate) is made for the second quarter only, to provide timely input to the national budget bill.

However, note that the quarterly and the annual estimates are not two separate products, but rather, are combined as follows:

Annual estimates are carried out during the second year after the reference year. This means that in 2018, the estimates for 2016 were published and the annual results were distributed over the quarters of the same year and used as a base for a recalculation of the quarters of 2017 and 2018. One year later, the projected results for 2017 are replaced with the 2017 annual estimates and so forth.

The main users of the statistics at the national level are the National Institute of Economic Research, the Riksbank, the Ministry of Finance, and others who work with economic analysis in the business sector, including banks, and in the academic sphere. National accounts are also an indispensable source for environmental accounts and regional accounts produced by Statistics Sweden.

Main users at the international level are Eurostat and other international organisations, such as the OECD and the IMF, as well as the business sector and researchers.

## **1.2 Content of the statistics**

The calculations comprise quarterly and annual economic activities that take place in Swedish territory, and transactions that take place across Sweden's borders. The calculations must include all economic transactions for the current period that have been made under a voluntary agreement.

### **1.2.1 Units and populations**

The target population consists of all domestic institutional units, which are the target units. Institutional units may be non-financial corporations, financial corporations, public authorities, non-profit institutions serving households (NPISHs) and households.

The population of interest is well in line with the target population.

Observation units may differ from target units. For example, this may be the case in some of the models used where it is not possible, or not considered sufficiently important to collect relevant data from the target units, and the calculations are instead model estimations.

Units other than the institutional units are used, for example, to be able to report the national accounts by industry. In these accounts, the target unit is the Kind of Activity unit (KAU).

The national accounts rarely use individual units, but instead use estimates of statistical target characteristics from other statistical products.

### 1.2.2 Variables

Appendix 1 presents the most important target variables in the *product accounts* and the *non-financial sector accounts*. In the *product accounts*, the variables are grouped by the *production approach*, the *expenditure approach*, the *income approach*, and *other key variables*.

The variables of interest match the target variables. On the other hand, there are some significant differences between the observation variables and the target variables, especially for the quarterly calculations. The main difference is that quarterly information is missing on value added for most of the business community. In these cases, the value added is assumed to follow the development of gross production. This assumption can then be modified in connection with the balancing between the production and expenditure approaches of GDP.

The target variable housing cost per square meter is another example of a difference between observation and target variables, which applies to both quarterly and annual calculations. Here, it is the cost of the rental stock that is observed but is believed to be valid also for owned housing. The reporting of the sources of uncertainties in Section 2.6 *Model assumptions* mentions a few other differences between the observation variables and target variables.

### 1.2.3 Statistical measures

Aggregate values in current prices as well as values, indices and changes in fixed prices (volume figures) are reported. The chain index method is applied for the calculation of volume figures. Quarterly volume series are reported with the last full calendar year as the reference year, while annual volume series are reported with 2015 as the reference year. Real sector accounts are reported only in current prices, but household disposable income is reported both nominally and real, that is, adjusted for the development of the implicit price index for household consumption.

### 1.2.4 Study domains

The National Accounts are reported based on different breakdowns. Some of the most important are:

- Expenditure components: Consumption expenditure, Gross capital formation etc. with certain further breakdowns.
- Industry, aggregate of Standard for Swedish Industrial Classification, (SNI 2007), approximately 40 (quarter) and 60 (annual) industries
- Institutional sector, five main sectors and rest of the world (Standard for institutional sector division, INSEKT 2014) as well as some additional breakdowns in particular for financial corporations and public administration.

- Purpose, household consumption expenditure according to *Classification of Individual Consumption by Purpose (Coicop)*, 12 main purposes and approximately 150 categories (annual).
- Durability, household consumption expenditure, approx. 10 categories

The following breakdowns are only shown for annual accounts:

- Gross capital formation, 12 types of assets (natural resources according to ESA 2010).
- Product, based on *Standard for Swedish Product Classification by Industry, SPIN 2007*, about 60 product groups.
- Purpose, Public consumption expenditure according to *Classification of the Functions of Government (Cofog)*, about 70 purposes.
- Asset, nine types of assets (Natural resources according to ESA 2010).

### 1.2.5 Reference times

The quarterly estimates refer to the quarters, and annual estimates refer to years.

## 2 Accuracy

### 2.1 Overall accuracy

The description of accuracy is limited to the accuracy of GDP in total.

The annual estimates, published after 21 months, are based on more complete and detailed statistics than the statistics available for quarterly estimates published two months after the end of each quarter. In simple terms, it can be said that the annual estimates determine the level of GDP and other aggregates in the national accounts system, while quarterly estimates are a way of distributing the results from the annual estimates on each quarter and for estimating current quarters.

The national accounts, both the annual and the quarterly, are based on a large number of primary statistical sources. Accuracy depends largely on the quality of the different sources and on the model assumptions used to estimate the target characteristics of the national accounts. In some cases these may differ significantly from the target characteristics of the primary statistics.

For some areas there are no recurring short-term statistics produced, or recurring statistics at all, necessitating reliance on model assumptions.

An aggregate measure of accuracy is not possible to compile due to the large number of sources, the model assumptions and the balancing between the estimates from the expenditure and production approaches in order to achieve one single GDP estimate.

GDP calculated from the production and expenditure approaches or sides are, in theory, identical. However, there is always a discrepancy between these calculations, which, as far as possible, should be based on separate sources. The approach that ends up being the highest or lowest varies over time. Part of the compilation process is to balance the accounting system so that the expenditure and production approaches result in the same estimate of GDP. The size of the discrepancy between the two approaches varies between years and different quarters.

### Annual compilations

In the annual compilations, production and expenditure are broken down to approximately 400 product groups. The supply side comprising production and imports, is confronted with the use of each product group. The use consists of intermediate consumption, consumption, gross capital formation and exports. Due to the uncertainties in the calculations, larger or smaller discrepancies arise in the different product balances. By analysing these, some errors can be identified and corrected. The analysis also provides support for assessments on how supply and use should be adjusted.

The existence of these discrepancies reveals that there is uncertainty in estimating GDP. The analysis performed is expected to help reduce uncertainty, but the fact that assessments and automatic adjustments are needed to eliminate discrepancies mean that uncertainty remains in the balanced results.

Below is a summary of the total discrepancy between supply and use in three stages during the production process: Before the analysis, halfway through the analysis and before RAS-process<sup>1</sup>.

### Total discrepancy, supply minus use, as a percentage of GDP, current and previous year's price

	2011		2012		2013		2014		2015		2016	
Before the analysis	2.1	2.2	2.0	1.8	-0.2	0.1	0.6	0.5	-0.2	-0.5	0.0	-0.1
Halfway	0.4	0.3	0.2	0.4	-0.4	-0.5	0.6	0.5	0.0	0.3	-0.1	-0.2
Before RAS	0.1	0.1	0.0	0.0	-0.2	-0.3	0.0	-0.1	-0.2	-0.2	0.0	0.0

One can note the following from the summary: the initial discrepancy has varied a lot - from 0.0 percent to over 2.0 percent of GDP<sup>2</sup>; The analysis tends to reduce the overall discrepancy (although it is not true for all years); the discrepancy may differ between the calculations at current and fixed prices; and; the analysis may result in various adjustments of the balances in fixed and current prices.

The above statement shows that there are uncertainties in the estimates and that it is not insignificant. The following two circumstances should also be considered:

- 1) To a certain extent there is a dependence between the calculations from the production and expenditure approaches, which means that errors

<sup>1</sup>RAS is an iterative proportional adaptation process to gradually reduce the product groups discrepancies to zero, as well as the overall discrepancy. It is a standard procedure within the national accounts to deal with the minor discrepancies remaining after major discrepancies have been analysed and corrected.

<sup>2</sup>The fact that it is significantly higher in 2011 and 2012 than the following year is judged to be incidental and is not dependent on any structural change in the underlying statistics or calculation models.

in one calculation reappear with the same sign in the second calculation;

- 2) There are dependencies between years, as some sub-estimates are estimates based on change rates from levels calculated in a previous year and confronted for the first time then. Such “benchmarks” can be significantly more uncertain than the size of the annual change of the same item.

Point 2) above also means that uncertainty is estimated to be greater in the level estimates than in the change estimates.

#### **Quarterly compilations**

The description of accuracy in the quarterly calculations is based entirely on volume calculations, or rather volume changes, as the quarterly estimates primarily focus on this.

As in the case of the annual accounts, it is not possible to calculate a measure of uncertainty for the quarterly estimates. Instead, we illustrate the uncertainty in the estimates by looking at the residual item initially shown between the calculations from the expenditure and the production approach. For the 40 quarters over the ten-year period 2008-2017, the difference between the two calculations was on average 0.9 percentage points in absolute terms of the relative volume change of GDP for one quarter compared with the corresponding quarter previous year. Even the median for the same period was 0.9 percentage points in absolute terms. The largest residual item was positive (expenditure approach > production approach) and amounted to 2.7 percentage points and the lowest was 0.0 percentage points. The largest negative residual item was 1.8 percentage points. On average, the residual item has been slightly positive. The above analysis refers to the first calculation for a quarter. The quarters are revised in future calculations (see Section 2.3 below) but typically the picture is not altered to a great extent. In order to report one single figure for GDP, a balance of the calculations from the expenditure and production approaches is made. This means that one side is adjusted downwards and the other side upwards. The extent to which each side is adjusted is guided by reconciliation principles, determined on the basis of the historical relationship of both calculations to the outcome of the annual calculations in different phases of the business cycle.

Before the actual reconciliation, assessment corrections take place. Such corrections mean that departure is made from the results obtained from the regular statistical source or model. This is based on clear indications that the source statistics are misleading for the current calculation period.

## **2.2 Sources of uncertainty**

The contributions to the uncertainty in the national accounts come partly from the statistics used and partly from the estimation procedures with the national accounts. The latter are based on model assumptions, especially when the statistics used have a different content than what the national accounts need.

Overall, model assumptions and measurement are considered to be the two sources of uncertainties that affect the accuracy of the statistics values the most. Uncertainty in model assumptions can come from both the national

accounts as well as from the primary statistics, while the uncertainty due to measurement comes from the primary statistics.

The assessments of different sources of uncertainty affecting accuracy are provided below using a rough classification, with three categories: small, moderate and large. The categories are used for both quarterly and annual statistics. Furthermore, the uncertainty is greater in the flash estimate of the second quarter, published in July, than in the subsequent regular calculation for the second quarter and the other quarterly calculations. This because the underlying information is more limited and the model dependency therefore greater in the flash estimate. Furthermore, the time available for analysis is considerably shorter.

### **2.2.1 Sampling**

In the national accounts, for calculations in current prices, a large part of the statistics are based on surveys that do not use sampling. In cases where sampling is used (especially for quarterly statistics), access to information for sample allocation is limited, and some information is not relevant. This affects the efficiency of the sample. The impact on accuracy of due to sampling is judged to be moderate for the quarterly estimates and small for the annual estimates.

Fixed price calculations include price indices, which are estimated through sampling. The impact on the accuracy from sampling to the fixed prices estimates is judged to be moderate.

### **2.2.2 Frame coverage**

Since the national accounts work with estimates of statistical target characteristics, the frame at the unit level is rather conceived frame. A frame exists for each type of unit that national accounts work with. In practice, each set of statistics controls what frame is used.

The frames used by each set of statistics usually display lags when it comes to updating current information, which means that it may take some time before an certain activity is covered. Based on the quality declarations of the statistics used, the impact on the accuracy of GDP due to frame coverage, is judged to be small.

### **2.2.3 Measurement**

A large part of the primary statistics highlight measurement as a significant source of uncertainty. One important example is price statistics, which indicate that it is in many cases difficult to compare the price of equivalent products over time. One reason is the presence of tailor-made products, but changes to existing products and the introduction of new products also present challenges. Another example is investment surveys where enterprises are asked to provide information according to the national accounts definition of an investment. This definition includes assets with a productive life span of one to three years. Since enterprises have the option of directly writing off "consumables" with a shorter lifespan than three years, they might find it difficult to apply the national accounts definition when responding to the survey.

The effect on the accuracy in the National Accounts from the source of uncertainty measurement is judged to be large.

#### **2.2.4 Non-response**

For most of the statistics using direct collection, it is mandatory by law to provide information to the survey.

The impact on the accuracy of the national accounts due to non-response is considered to be moderate for the quarterly estimates and small for annual estimates.

#### **2.2.5 Data processing**

The production of the national accounts is characterised by reasonability assessments regarding the primary statistics used in the calculation of the results. Furthermore, the fact that calculations are based on different more or less independent approaches means that the results can be compared and the differences analysed. This process means that the final balanced results should display higher accuracy than the primary statistics originally used for the calculations, regardless of whether the uncertainty derives from data processing or other sources of uncertainty, or from data processing errors in the production of the national accounts.

The impact on the accuracy in the accounts of due to data processing is judged to be small.

#### **2.2.6 Model assumptions**

As mentioned in Section 2.1 above, some model assumptions are made where there are no primary statistics that are directly adapted to the needs of national accounts. Below are some of the most important model assumptions:

- 1) Given that information on value added from the business sector is missing to a large extent for the quarterly estimates, value-added is assumed to follow the development of gross output (see Section 1.2.2).
- 2) The calculations for consumption of owner occupied dwellings services are largely model dependent. This applies in particular to values in current prices, since the valuation of such living accommodation is a particularly difficult issue. Changes in volume are also very model-dependent, but in the short term this is less susceptible to model errors, as the estimations are based on the development of the housing stock, which is relatively slow-moving. The above mentioned housing costs apply in the same way to the production (for own final use) of corresponding housing services in owner occupied dwellings. The uncertainty due to model assumptions will therefore not be shown in the residual item.
- 3) The estimation of gross fixed capital formation of dwellings is based on the statistics covering housing starts. By assuming a certain construction time for single-family and multi-family houses, the number of begun units is modelled for investments in the following quarters. The model implies uncertainty as construction times are assumed to change in the long term and also vary in the short term. There is a strong dependence between these calculations and the

calculation of construction output, which is why the uncertainty due to modelling will only to a limited extent expressed in the residual item.

- 4) The production of R&D and own final-use software invested in enterprises is valued based on the production cost plus a model-based profit increase. Especially for software, the calculation of the production cost is also model-based. The calculations are made primarily on a yearly basis, while the quarterly calculations are based on the assumption that production changes are in line with the enterprises' market output. The uncertainty here will not be reflected in the residual item but will affect the production and expenditure approach in the same way.
- 5) In accordance with the guidelines applicable to European national accounts, direct volume measures are used for parts of public production and consumption. An example is the number of student hours used as a volume indicator for education. As student hours are a simplified expression for the production of education, some uncertainty arises in the volume estimates. In addition, quarterly calculations also use forecast models for certain volume measures.
- 6) In the current calculations of household consumption expenditure, the result largely based on change estimates from sales data for those industries supplying goods and services to households. The calculation is based on the assumption of fixed consumption shares of households and other customer categories. The resulting uncertainty applies primarily to the quarterly estimates.
- 7) For hidden and underground activities and illegal production and expenditure, no recurring statistics exist which is why special calculations are made with longer intervals. For intermediate years and quarters, projections are made based on corresponding or related legal activities.

Model assumptions are also used in the primary statistics. For example, it is common practice for model-based estimates to be used for a part of the target population (such as small businesses).

The impact on the accuracy of the national accounts from model assumptions is judged to be high. As stated above, not all uncertainties from model assumptions are reflected in the residual item because some models affect the production and expenditure approaches in the same way

## **2.3 Preliminary statistics compared with final statistics**

### **Quarterly compilations**

In connection with each quarterly calculation, previous periods are revised according to established rules.<sup>3</sup> The size and direction of the revisions vary. For the 24 quarters published for the years 2011-2016, the average revision of the rate of growth (GDP relative volume change compared with the

<sup>3</sup>[https://www.scb.se/contentassets/66e9dae3a5d94bf8b4c299ce25294348/02\\_revideringspolicy\\_engelsk-oversattning\\_nr0103\\_1.pdf](https://www.scb.se/contentassets/66e9dae3a5d94bf8b4c299ce25294348/02_revideringspolicy_engelsk-oversattning_nr0103_1.pdf)

corresponding quarter of previous year) at the *first*<sup>4</sup> revision occasion is just under 0.2 percentage points calculated in absolute and real (non seasonally adjusted) figures. Positive and negative revisions cancel each other out and revisions have ranged from -0.4 to 0.5 percentage points.

The revisions of the second and third revision occasions have on average been as large as in the first occasion or insignificantly less. The third, second and first quarters are subject to further one, two and three revision occasions, respectively, before all quarters are revised in connection with the final annual calculations for year  $t-2$  were conducted and published in September at the same time as Q2 year  $t$ . The revisions in the *fourth* and *fifth* revision occasions have on average been insignificantly smaller than in the first three revision occasions, while the *sixth* revision occasion, which only concerns Q1, is on average revised just under 0.1 percentage point. The revision in the second to the sixth revision occasions has varied between -0.4 and 0.6 percentage points.

Still after these six revisions, positive and negative revisions have on average over the six years cancelled each other out. The accumulated revisions have varied from -0.8 to 0.7 percentage points.

As a result of the final annual calculation, the quarters are revised again to match the total of the four quarters with the total for the year. These revisions are generally larger than the previous quarterly revisions, as the annual calculations are partly based on other and more detailed sources. On average, for the five years 2011-2015, the growth rate has been revised down by close to 0.3 percentage points compared to the originally published results. The revisions of the individual quarters for a year differ due to the fact that the quarters are adjusted to obtain a reasonable relationship with the quarters in the most recent years. The largest revision compared with originally published results was -1.7 percentage points, while the largest positive revision amounts to 1.0 percentage points.

Seasonally adjusted series are revised in full at each computation date. Viewed over the 24 quarters of 2011-2016, the average revision of the seasonally adjusted quarterly rate of growth was 0.2 percentage points at the first revision, then gradually decreasing to 0.1 before the final annual estimate once again meant a major revision. The revisions have (before the annual calculation) ranged from -0.7 to 0.4 percentage points.

Since the accuracy of the flash estimate is estimated to be lower than in the other quarterly estimates, one should expect that the revision of the growth rate that occurs a few weeks later tends to be larger than other revisions. Furthermore, the revised estimate is affected by the fact that an annual calculation for the calendar year  $t-2$  has also been incorporated into the time series. This means that the relative significance of different sub-aggregates has changed, affecting the overall results even though the development of the sub-aggregates has not changed. For the years 2011-2016, the revisions have been,

<sup>4</sup>With the exception for the flash estimate, which is done in July for Q2. This means that with the first revision, the revision referred to in the calculation of Q3 is based on the regular calculation of Q2.

on average, almost 0.6 in absolute and real (non-seasonally adjusted) figures. They range from -0.7 to 1.0 percentage points.

#### **Annual compilations**

A major review, or benchmark revision, is carried out approximately every five years. On these occasions a review is made of all or parts of the time series. This is usually done in the light of the fact that results from new or improved statistical surveys have become available, definitions have changed within the regulatory framework governing national accounts or the introduction of new or improved methods. Revisions of this kind imply, above all, that the level of the series is changing, while the consequences for the relative development (estimates of change) in general are small.

The results of the latest general review were published in 2014 and coincided with the introduction of the new National Accounts Standard, ENS 2010. For 2011, the last year for which an annual calculation was carried out according to the old standard, the GDP level was raised by 5 percent, of which 4 percentage points were a consequence of changes in the standard and 1 percentage point related to improved estimates. The single largest change that came with ESA 2010 was that R&D was regarded as gross fixed capital formation, which contributed almost 4 percentage points. The journal, *Sweden's economy - Statistical Perspective no 2 and no 3 2014*, contains articles describing the regulatory changes and the other revisions. Descriptions are also found in Statistical Reports, NR 10 SM 1401, National Accounts 1993-2012.<sup>5</sup>

The former ESA 95 standard was introduced in 1999 in the Swedish National Accounts. After that, the annual accounts have been revised on four occasions before 2014. Below is the size of the revision for the last year for which an annual calculation had at that time been made:

- 2003: +3.7 percent for 1999. The main part was explained by a changed interpretation of how public VAT would be included in the accounts.
- 2005: +0.8 percent for 2002. Changed treatment of certain financial services.
- 2007: +2.3 percent for 2004. Various improvements.
- 2010: +1.5 percent for 2006. Various improvements.

At the release in September 2018 of the annual calculation for 2016, some minor revisions of the annual calculation for 2015 and a number of years prior were also made. For information on these revisions, refer to the current statistical report at [www.scb.se/nr0103](http://www.scb.se/nr0103).

### **3 Timeliness and punctuality**

#### **3.1 Production time**

Quarterly accounts are published for quarters 1, 3, and 4 within 60 days after the end of the quarter.

<sup>5</sup>The years before 1993 were revised later and published in February 2015.

For the second quarter, a flash estimate is published after 30 days, while the ordinary calculation of the same quarter is published after 75 days.

Annual estimates are published 21 months after the end of the year.

“Preliminary annual estimates” are simply the sum of the four quarterly estimates in a calendar year before an annual compilation has been produced for the year. Therefore, the first preliminary annual estimate for a certain year is published at the same time as the estimate for the fourth quarter.

### **3.2 Frequency**

The quarterly accounts refer to quarter and are produced and published for each quarter. The quarterly accounts are nearly exclusively based on quarterly and monthly statistics. Statistics with different periodicity may occur in model estimations.

Annual accounts refer to year and are produced and published for each year. Annual accounts are to a large extent based on annual statistics, although short-term statistics are used in some areas, for example in foreign trade in goods.

In the case of the R&D survey, statistics collected every two years are used. The R&D survey collects information on outcome for the previous year and on forecasts for the current year.

### **3.3 Punctuality**

National Accounts have been reported according to the publishing calendar.

## **4 Accessibility and clarity**

### **4.1 Access to the statistics**

The National Accounts are published on Statistics Sweden’s website, in the Statistical Database, in the Nordic Council of Ministers’ publications and databases, the OECD, Eurostat, the United Nations, and the International Monetary Fund. Parts of the material are also available in the Swedish Economy Report published by the National Institute of Economic Research, and in the finance plan issued by the Ministry of Finance.

### **4.2 Possibility of obtaining additional statistics**

In addition to the tables and information that is published, some information is produced on commission. Some commissions are quarterly, while others are a one-off. Users can request all the information that is possible to produce, provided it is not subject to confidentiality. Time-consuming commissions are accepted for a fee.

### **4.3 Presentation**

“Statistical news” and in-depth texts that explain the development and describe balancing between the production and expenditure approach and revisions of previous periods are available on Statistics Sweden’s website ([www.scb.se/NR0103](http://www.scb.se/NR0103)). In addition, complete tables in Excel, key figures and links to tables are available in the Statistical Database. Information is presented in current prices, fixed prices and seasonally adjusted and calendar adjusted terms.

#### 4.4 Documentation

The *System of National Accounts SNA 2008* is only available in English. ISBN 92-1-161352-3. ENS 2010 is the Swedish version of ESA 2010, *European System of national and regional Accounts*.

The following material is available on Statistics Sweden's website (<http://www.scb.se/nr0103>) under the heading "More information":

- *Calculation procedures for the National Accounts* Appendix 3 in the *Commission on the Review of Economic Statistics (SOU2002:118)*.
- Documentation on the *GNI inventory* (only available in English).
- Documentation on the quarterly sector accounts - *QSA inventory*
- National wealth, documentation
- Sources and methods in the Swedish National Accounts - *QNA inventory*
- Documentation on fixed price calculations.
- Definition of terms in the National Accounts.
- Brief information about the National Accounts
- Description of the Input-Output table package.
- Comprehensive information on changes as a result of the new accounting standard ESA 2010.

On the same website, under the heading "Documentation", there is:

- Detailed descriptions of the statistical content that describes variables and value sets.

## 5 Comparability and coherence

### 5.1 Comparability over time

The series in accordance with the ESA 2010 begin in 1980, and in some cases in 1993. The GDP series on the expenditure side stretches back to 1950. The perspective of time series is very important in the national accounts, and compilations must show both the correct level and development over time. This applies to both quarterly and annual compilations.

To avoid time series breaks to the extent possible, new information between revisions is processed such that existing levels are projected with the correct development based on the new information. During the next revision, previous periods that are "open" at the time of revision are adjusted. When an annual compilation of the national accounts has been made and a new level has been calculated for the relevant calendar year, the existing quarterly estimates for that year and for the following years are adjusted. In addition, the quarterly estimates of the two years preceding the year for which the annual accounts have been compiled, are revised. This adjustment is made to ensure that the difference between gradual quarterly changes is minimised when the new level for the year replaces the preliminary level. Calendar-adjusted and seasonally adjusted values are calculated for the total GDP, value added in fixed prices and for hours worked. For the main aggregates of the GDP expenditure side, seasonally adjusted values are calculated in both current and fixed prices. Seasonal adjustment is based on ARIMA models that are re-estimated for each new quarter. The choice of model is reviewed annually. For GDP's expenditure side, the reported sub-aggregates are

adjusted to achieve sum consistency with total GDP, for quarters in the relevant year and quarters in the year previous to the relevant year (reference year). Seasonally adjusted data for real sector accounts, on the other hand, is not sum consistent.

In major reviews carried out roughly every five year (see Section 2.3) previous years are also re-calculated to eliminate or minimise time series breaks. Missing relevant and reliable data often constitutes a limitation in this context and models are therefore applied to a relatively large extent. The easiest example of such a model is that existing level are adjusted proportionately as much as in the earliest year in which data could be used.

## **5.2 Comparability between domains**

National conditions are different with regard to data for National Accounts, which is why there are limits to comparability between countries. NA follows the European System of National and Regional Accounts (ESA 2010), which is an internationally comparable accounting system and applies as law in the EU Member States. The ESA 2010 is fully consistent with the System of National Accounts (SNA 2008), which was prepared jointly by the UN, the IMF, the EU, the OECD and the World Bank. However, the ESA 2010 focuses more on relations and data needs in the EU. Just as the SNA, the ESA is harmonised with regard to concepts and classifications that are used in many other social and economic statistical systems. This is why the ESA can function as a central reference structure for social and economic statistics in the EU and its Member States. Eurostat carries out regular revisions of Member States' calculations to safeguard quality and comparability among the difference countries. Despite this, disparate conditions mean that within the EU, there are also certain limitations in comparability.

At national level, there may also be limitations in comparability, between for example, industries, product groups, sectors, asset classes, types of stock and more, since documentation may differ, with disparity with regard to issues such as sources of uncertainty.

## **5.3 Other coherence**

Concerning comparability with statistics published across various sub-areas of the Swedish economy, it is seldom possible to find precisely the same data in the NA system. When the National Accounts are compiled and reconciled, large quantities of primary statistical data is used. The data that is used often have coverage and definitions that do not entirely correspond to the NA system's requirements, which is why additions and corrections are made. In the NA system, data is checked and tested for consistency. If available data does not provide a coherent picture of the economic development, this leads to adjustments in the NA. In the Swedish National Accounts, a total calculation of the GDP from both the production approach and the expenditure approach is made. These calculations never show exactly the same GDP development, which is why corrections of various underlying data are made. This may lead to a difference in primary statistics and NA in published information. Differences may also occur due to different timeliness. Furthermore, in some cases, differences in definitions between primary statistics and NA may occur.

#### **5.4 Numerical consistency**

Reporting in reference year prices (volume measures in which the values are expressed in a common year price point) means that it is not possible to sum up the different basic items and the aggregates for the reference year and the next year. In other words, it is not possible to sum up sub-items in reference year prices and thereby generate the GDP for periods prior to the reference year. Neither is it possible to compare the industries' share of total growth with each other. Each individual series must be calculated separately and at the suitable level of analysis.

In addition, annual compilations and quarterly compilations have different reference years. While volume measures in annual compilations are reported with reference year 2015 (often expressed as index figure 2015=100), quarterly calculations are calculated using the calendar year closest prior to the most recently calculated quarter as the reference year.

Each aggregate is seasonally adjusted individually and is therefore not calculated as a sum of the underlying values. This means that there is no sum consistency for a number of series. However, for important aggregates, sub-series are adapted to make it possible to sum up for the relevant year and the previous year (see also Section 5.1 above).

### **General information**

#### **A Classification of the Official Statistics of Sweden**

These statistics are included in Sweden's official statistics (SOS).

With regard to statistics included in Official Statistics of Sweden (SOS), special rules apply for quality and availability, see the Official Statistics Act ([2001:99](#)), [the Official Statistics Ordinance \(2001:100\)](#), and the Statistics Sweden Regulations on the Quality of the Official Statistics (SCB-FS 2016:17).

#### **B Confidentiality and handling of personal data**

Regarding confidentiality in the agency's specific task of the production of statistics, Chapter 24, Section 8 of the Public Access to Information and Secrecy Act ([2009:400](#)) applies. This product does not process personal data.

#### **C Archiving and discarding material**

No special archiving regulations apply. The results are stored long-term.

#### **D Obligation to provide information**

National Accounts are calculated based on data from other statistics producers (mainly at Statistics Sweden, but also several other agencies responsible for statistics), administrative material and other information. Information concerning the obligation to provide information is evident in each individual survey. Data on which official statistics is based is generally subject to an obligation to provide information, which is regulated by the Official Statistics Act ([2011:99](#)).

## **E EU regulations and international reporting**

Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union. The regulation is supplemented by:

- Commission Implementing Decision (EU) 2018/1891 of 30 November 2018 amending Implementing Decision 2014/403/EU on granting derogations to Member States with respect to the transmission of statistics pursuant to Regulation (EU) No 549/2013 of the European Parliament and of the Council concerning the European system of national and regional accounts in the European Union;
- Commission Implementing Regulation (EU) No 724/2014 of 26 June 2014 on the interchange standard for the transmission of data required under Regulation (EU) No 549/2013 of the European Parliament and of the Council on the European system of national and regional accounts in the European Union; and
- Commission Implementing Regulation (EU) 2016/2304 of 19 December 2016 on the modalities, structure, periodicity and assessment indicators of the quality reports on data transmitted pursuant to Regulation (EU) No 549/2013 of the European Parliament and of the Council.

Data is transmitted to Eurostat and the OECD with every publication on established templates for all EU Member States. Other international organisations, such as the International Monetary Fund and the European Central Bank, also receive information regularly. Tables transmitted to Eurostat are also published on [Statistics Sweden's website](#).

## **F History**

Responsibility for NA was transferred from the National Institute of Economic Research to Statistics Sweden in 1963/1964. Quarterly national accounts have been produced since 1970. At the time, calculations followed the international System of National Accounts, adopted by the United Nations Statistical Commission in 1968. The SNA has been revised twice since then, in 1993 and in 2008. Both revisions were preceded by considerable harmonisation with other relevant manuals.

At the same time, in Europe, applications of SNA 68, SNA 93 and SNA2008 were developed in conformity with the international manuals. The most recent system, the European System of National and Regional Accounts, ESA 2010, forms the regulations that all EU Member States must adhere to in the production of their national accounts. Since the publication in September 2014, the Swedish national accounts are produced fully in accordance with the ESA 2010 principles for the period 1993 and forward. For the period 1980-1992, there are some re-calculated series at a more aggregated level in accordance with ESA 2010. For the period 1950 to 1980, the SNA 68 definitions apply. Quarterly accounts have been compiled since 1970.

**G Contact information**

<b>Statistical agency</b>	Statistics Sweden
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## Appendix 1 - Central target and observation variables

### *Product accounts*

#### From the production approach:

##### **B1g** Value added, gross

The value added of a *sector/industry* refers to the *production value* of the *sector/industry* minus the *intermediate consumption* of the *sector/industry*. The sum of the *gross value added* of all *sectors/industries*, with the addition of the net *product taxes* and *product subsidies* comprises the *GDP at market price*.

##### **D21** Taxes on products

Taxes on products (D.21) are taxes that are payable per unit of a given good or service produced or transacted. The tax may be a specific amount of money per unit of quantity of a good or service, or it may be calculated as a specified percentage of the price per unit or value of the goods and services produced or transacted (ESA, Chapter 4.16). Import duties, energy taxes and value added tax are examples of taxes on products.

##### **D31** Subsidies on products

Subsidies on products are subsidies payable per unit of a good or service produced or imported (ESA, Chapter 4.33).

#### From the expenditure approach:

##### **P31HU** Households' real consumption expenditure

Consumption expenditures consist of domestic *institutional units' (households and the public sector)* expenditures for goods and services that are used to directly meet individual needs or requests, or members' of society collective needs. Households' consumption expenditures show the household sector's real expenditures on consumption. Households' total consumption is referred to as households' real consumption and therefore, consists of the **households' actual consumption expenditures** plus NPISHs' consumption expenditures, plus the public sector's individual consumption expenditures.

##### **P31HI** Consumption expenditure NPISHs (non-profit institutions serving households)

Non-profit institutions serving households (NPISHs) consist of non-profit institutions that are separate legal units that serve households and are private *non-market producers*. Sports clubs, trade unions and religious groups are examples of NPISHs.

##### **P31M** Public individual consumption

Consumption is divided into individual and collective consumption. Individual consumption consists of households' and NPISHs' consumption expenditures, as well as a large share of **public consumption expenditures** on education, health and medical care, social protection, sports and recreation, as well as culture.

### **P32 Collective consumption expenditure**

Consumption is divided into *individual* and collective consumption. Services for collective consumption are delivered at the same time to all citizens in society or to all citizens in a certain part of society, for example all households in a certain region. Defence and police are examples of collective services.

### **P51g Gross fixed capital formation**

Gross fixed capital formation consists of resident producers' acquisitions, less disposals of *fixed assets* during a given period plus certain additions to the value of the non-produced assets realised by the productive activity of producer or *institutional units*. *Fixed assets* are produced *assets* used in the production for more than one year. (ESA, Chapter 3.124).

### **P52 Changes in inventories**

Changes in inventories are measured by the value of the entries into inventories less the value of withdrawals and the value of any recurrent losses of goods held in inventories. (ESA, Chapter 3.146).

### **P6 Exports of goods and services**

Export of goods and services consists of transactions in goods and services (sales, barter, and gifts) from residents to non-residents. (ESA, Chapter 3.158).

### **P7 Imports of goods and services**

Imports of goods and services consist of transactions in goods and services (purchases, barter, and gifts) from non-residents to residents. (ESA, Chapter 3.159).

### **From the income approach:**

#### **D11 Wages and salaries**

Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during an accounting period (ESA, Chapter 4.02). Compensation of employees is made up of the following components:

- *real wages and salaries*; wages and salaries in cash; wages and salaries in kind;
- employers' *social contributions*

#### **D12 Employers' social contributions**

Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during an accounting period (ESA, Chapter 4.02). Compensation of employees is made up of the following components:

- *real wages and salaries*; wages and salaries in cash; wages and salaries in kind;
- employers' *social contributions*

#### **B2g Gross operating surplus**

The *balancing item* in the generation of income account (ESA, Chapter 8.18). Operating surplus refers to the surplus (or deficit) that the production activities generate before account has been taken of the interest, rents or charges that the production unit

- must pay on financial *assets* or on natural *resources* that it has borrowed or rented;
- must receive on financial *assets* or on natural *resources* of which it is the owner.

### **B3g            Mixed income, gross**

The balancing item in the generation of income account for personal enterprises in the *household sector*. The owner or members within the same household often do not receive any remuneration for work done for the company. The surplus is therefore a combination of compensation for this work and earnings for the owner.

### **D2            Taxes on production and imports**

Taxes on production and imports consist of product taxes (D.21) and other production taxes (D.29). Taxes on products (D.21) are taxes that are payable per unit of a given good or service produced or transacted. The tax may be a specific amount of money per unit of quantity of a good or service, or it may be calculated as a specified percentage of the price per unit or value of the goods and services produced or transacted (ESA, Chapter 4.16). Import duties, energy taxes and value added tax are examples of taxes on products. Other taxes on production consist of all *taxes* that enterprises incur as a result of engaging in production, independent of the quantity or value of the goods and services produced or sold. Other taxes on production may be payable on the land, *fixed assets* or labour employed in the production process or on certain activities or transactions (ESA, Chapter 4.22). Tax on motor vehicles is an example of other tax on production.

### **D3            Subsidies**

Subsidies consist of subsidies on products (D.31) and other subsidies on production (D.39). Subsidies on products are subsidies payable per unit of a good or service produced or imported (ESA, Chapter 4.33). Other subsidies on production consist of all subsidies that enterprises incur as a result of engaging in production, independent of the quantity or value of the goods and services produced or sold.

### **Other central variables:**

#### **S1            Number of persons in employment**

The number of employees includes all persons employed in some productive activities that fall within the production boundary in the National Accounts. Employed persons are either employees or self-employed persons. Persons who have more than one job are classified as employed or self-employed persons, depending on their main job.

## **S2 Number of hours worked**

The total number of hours worked corresponds to the total number of actual hours worked that the employee or the self-employed person has carried out during an accounting period, provided that the production result lies within the production boundary.

### **Non-financial sector accounts**

#### **B1gb Gross value added at basic prices**

The value added of a *sector/industry* refers to the *production value* of the *sector/industry* minus the *intermediate consumption* of the *sector/industry*. The sum of the *gross value added* of all *sectors/industries*, with the addition of the *net product taxes* and *product subsidies* comprises the *GDP at market price*.

#### **D21 Taxes on products**

Product taxes (D.21) are taxes that are payable per unit of a given good or service produced or transacted. The tax may be a specific amount of money per unit of quantity of a good or service, or it may be calculated as a specified percentage of the price per unit or value of the goods and services produced or transacted (ESA, Chapter 4.16). Import duties, energy taxes and value added tax are examples of taxes on products.

#### **D31 Subsidies on products**

Subsidies on products are subsidies payable per unit of a good or service produced or imported (ESA, Chapter 4.33).

#### **B1gm GDP, Gross domestic product at market prices**

Gross domestic product at market prices is the sum of value added of all goods and services produced in the country during a period, normally one year or one quarter with the addition of *net taxes on products* and *subsidies on products*. The gross domestic product at market prices can be defined in three ways:

- GDP is the sum of gross value added of the various *institutional sectors* or the various industries plus *taxes* and less *subsidies on products* (which are not allocated to *sectors* and industries). It is also the *balancing item* in the total economy production account.
- GDP is the sum of final uses of goods and services by resident *institutional units* (*final consumption* and *gross capital formation*), plus *exports* and minus *imports* of goods and services.
- GDP is the sum of uses in the total economy generation of income account (*compensation of employees*, *taxes on production* and *imports* less *subsidies*, *gross operating surplus* and *mixed income* of the total economy). (ESA, Chapter 8.89)

#### **D11 Wages and salaries**

Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during an accounting period (ESA, Chapter 4.02). Compensation of employees is made up of the following components:

- *real wages and salaries*; wages and salaries in cash; wages and salaries in kind;
- employers' *social contributions*

#### **D12 Employers' social contributions**

Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during an accounting period (ESA, Chapter 4.02). Compensation of employees is made up of the following components:

- *real wages and salaries*; wages and salaries in cash; wages and salaries in kind;
- employers' *social contributions*

#### **B2n Net operating surplus**

The *balancing item* in the generation of income account (ESA, Chapter 8.18). Operating surplus refers to the surplus (or deficit) that the production activities generate before account has been taken of the interest, rents or charges that the production unit

- must pay on financial *assets* or on natural *resources* that it has borrowed or rented;
- must receive on financial *assets* or on natural *resources* of which it is the owner.

Net means that the operating surplus is reported less deductions for consumption of fixed capital.

#### **B3n Mixed income, net**

The balancing item in the generation of income account for personal enterprises in the *household sector*. The owner or members within the same household often do not receive any remuneration for work done for the company. The surplus is therefore a combination of compensation for this work and earnings for the owner.

#### **D29 Other taxes on production**

Other taxes on production consist of all *taxes* that enterprises incur as a result of engaging in production, independent of the quantity or value of the goods and services produced or sold. Other taxes on production may be payable on the land, *fixed assets* or labour employed in the production process or on certain activities or transactions (ESA, Chapter 4.22). Tax on motor vehicles is an example of other tax on production. Compare *Taxes on products*.

#### **D39 Other subsidies on production**

Other subsidies on production consist of all *subsidies* that enterprises incur as a result of engaging in production, independent of the quantity or value of the goods and services produced or sold. Compare *Subsidies on products*.

#### **D4 Property income**

Property income (D.4) accrues when the owners of financial *assets* and natural resources put them at the disposal of other *institutional units*. The income payable for the use of financial *assets* is called investment income, while that payable for the use of a natural resource is called rent. Property income is the sum of investment income and rent. (ESA, Chapter 4.41).

**B5g GNI, Gross national income / Balance of primary incomes, gross**

The sum of all incomes in a country during a period, normally one year. Gross national income (at *market prices*) is the *GDP* minus *primary incomes* that resident units payable to non-resident units plus *primary incomes* receivable from *abroad*. 'Primary income' is the income which resident units receive by virtue of their direct participation in the production process, and the income receivable by the owner of a financial asset or a natural resource in return for providing funds to, or putting the natural resources at the disposal of, another *institutional unit*. (ESA, Chapter 8.22).

**D5 Current taxes on income, wealth, etc.**

Compulsory, unrequited payments, in cash or in kind, levied by *general government* or by the European Union institutions. Taxes are divided into: taxes on *production* and *imports*, current income and wealth taxes, and capital taxes.

**D6 Social contributions and benefits**

Net social fees are actual or imputed fees payable by households to social insurance schemes in order to secure entitlement to social insurance benefits.

Social benefits consist of payments in cash in the form of, for example, pension payments, activity allowances and sickness benefits (previously early retirement pension), sickness benefit, unemployment benefit, parental insurance, child allowance, assistance allowance, housing support for pensioners, housing allowance, and maintenance support.

Social benefits in kind include individual goods and services provided to individual households for free or for prices that are not economically significant for public administrative units or non-profit institutions serving households, independent of whether the goods and services are purchased on the market or produced as *non-market production* from public administrative units or non-profit institutions serving households. They are financed out of taxation, other government income or social security contributions, or out of donations and *property income* in the case of non-profit institutions serving households. (ESA, Chapter 4.108).

**D7 Other current transfers**

Unrequited payments from one unit to another. This may refer to current transfers or capital transfers. Current transfers

are taxes, social contributions and benefits, and other current transfers. Other current transfers consist of net non-life insurance premiums (D.71), non-life insurance claims (D.71), current transfers within general government (D.73), current international cooperation (D.74), miscellaneous current transfers (D.75), and VAT- and GNI-based EU own resources (D.76).

### **B6n Net disposable income**

*Net disposable income* is equal to *net primary income account* plus receivable *current transfers* minus payable *current transfers* (current income and wealth taxes, etc., social contributions, social benefits and other current transfers).

### **B7n Adjusted net disposable income**

Adjusted disposable income is incurred by adding incomes in the form of social benefits in kind to disposable income or deducting fees for social benefits in kind from disposable income depending on which *institutional sector* is referred to. For the total economy, adjusted disposable income is equal to disposable income. For the *household sector*, this means that adjusted disposable income is higher than disposable income as the *household sector* receives incomes in the form of social benefits in kind. Households' actual individual consumption increases to the same extent as the incomes of social transfers in kind. For the consolidated public sector, this means that adjusted disposable income is lower than disposable income as the consolidated public sector only has expenses for social benefits in kind.

### **P3 Consumption expenditure**

Consists of expenditure incurred by resident *institutional units* (*household* and *public sector*) on goods or services that are used for the direct satisfaction of individual needs or wants or the collective needs of members of the community. (ESA, Chapter 3.94). Compare *actual consumption*, which is the value of all goods and services consumed by a *sector*, but not necessarily purchased by the same sector. Households consume, for example, goods and services that are financed by *public authorities* and are thus included in the public consumption expenditure, but are a part of the households' *actual consumption*.

### **P41 Actual final individual consumption**

Consumption is divided into individual and *collective* consumption. Individual consumption consists of households' and NPISHs' consumption expenditures, as well as a large share of public consumption expenditures on education, health and medical care, social protection, sports and recreation, as well as culture. The breakdown into individual and collective consumption is interesting when looking at the *actual consumption* in a *sector* and in comparisons between countries.

### **P42 Actual final collective consumption**

Consumption is divided into *individual* and collective consumption. Services for collective consumption are delivered at the same time to all citizens in society or to all citizens in a certain part of society, for example all households in a certain region. Defence and police are examples of collective services. The breakdown into individual and collective consumption is interesting when looking at the *actual consumption* in a *sector* and in comparisons between countries. *Public authorities'* actual consumption consists entirely of collective consumption while its total consumption expenditures also comprises parts of the households' actual consumption.

## **D8 Adjustment for the change in pension entitlements**

The adjustment for the change in pension entitlements represents the adjustment needed to make appear in the saving of households the change in the pension entitlements on which households have a definite claim. The pension entitlement change comes from contributions and benefits recorded in the secondary distribution of income account.

## **B8n Net saving**

This aggregate measures the portion of *disposable income* that is not used for *final consumption expenditure*. *Net national saving* is the sum of the *net savings* of the various *institutional sectors*. (ESA, Chapter 8.96).

## **D9 Capital transfers**

Capital transfers require the acquisition or disposal of an asset, or assets, by at least one of the parties in the transaction. Whether made in cash or in kind, they result in a commensurate change in the financial, or non-financial, assets shown in the balance sheets of one or both parties to the transaction.

## **P51g Gross fixed capital formation**

Gross fixed capital formation consists of resident producers' acquisitions, less disposals of *fixed assets* during a given period plus certain additions to the value of the non-produced assets realised by the productive activity of producer or *institutional units*. *Fixed assets* are produced *assets* used in the production for more than one year. (ESA, Chapter 3.124).

## **P52 Changes in inventories**

Changes in inventories are measured by the value of the entries into inventories less the value of withdrawals and the value of any recurrent losses of goods held in inventories. (ESA, Chapter 3.146).

## **P53 Acquisitions less disposals of valuables**

Valuables are non-financial goods that are not used primarily for *production* or *consumption*, do not deteriorate (physically) over time under normal conditions and are acquired and held primarily as *stores* of value. (ESA, Chapter 3.154). Art objects and antiquities are examples of valuables.

## **P51c Consumption of fixed capital**

Consumption of fixed capital is the decline in value of *fixed assets* owned, as a result of normal wear and tear and obsolescence. The estimate of decline in value includes a provision for losses of *fixed assets* as a result of accidental damage which can be insured against. Consumption of fixed capital covers anticipated terminal costs, such as the decommissioning costs of nuclear power stations or oil rigs or the cleanup costs of landfill sites. Such terminal costs are recorded as consumption of fixed capital at the end of the service life, when the terminal costs are recorded as *gross fixed capital formation*. (ESA, Chapter 3.139).

## **NP Acquisitions less disposals of non-produced assets**

Non-produced assets consist of assets that have not been produced within the production boundary, and that may be used in the production of goods and services. Three categories of acquisition less disposals of non-produced assets

are distinguished: acquisition less disposals of natural resources (NP.1); acquisition less disposals of contracts, leases and licenses (NP.2); and purchases less sales of goodwill and marketing assets (NP.3). Natural resources comprise land, mineral and energy reserves, non-cultivate biological resources, water resources, radio spectra, other natural resources.

**B9 Net lending (+)/net borrowing (-)**

The part of *gross* disposable income that is not consumed or used for capital formation (capital transfers, gross investments or net acquisition or non-producing assets). For the total economy, this represents the net resources that the total economy has available *abroad* (if it is positive) or receives from *abroad* (if it is negative). Net lending (+) or net borrowing (-) for the total economy is equal to, but with the opposite sign, as *external* net borrowing (-) or net lending (+). (ESA, Chapter 8.98).

**B101 Changes in net worth due to saving and capital transfers**

The sum of savings and net capital transfers.

**B11 External balance of goods and services**

A country's *exports of goods and services* minus its *imports of goods and services*.

**B12 Current external balance**

The balancing item in the external account for primary incomes and current transfers represents the surplus (if it is negative) or the deficit (if it is positive) for the total economy on its current external transactions (trade in goods and services, primary incomes, current transfers).