QUALITY DECLARATION

National Accounts, quarterly and annual calculations

Subject area
National Accounts

Statistical area
National Accounts

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2020, year

Contents

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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 is to provide a summary of the scope, structure and progression of the Swedish economy. The Swedish economy consists of Swedish entities' economic activities, and transactions between Swedish and foreign entities.

The description should be performed systematically in a system of accounts and comply with the rules set out in the European System of National and Regional Accounts – ESA 2010 – which is statutory in EU Member States – and in supplemented guidelines. Regulating national accounts in the European Union is essential for attaining comparability between Member States.

The ESA regulates all components of the National Accounts, including regional accounts, which is a statistical product in its own right, and financial accounts, which is a statistical area within the Financial Markets subject area. The statistical product *National Accounts, quarterly and annual calculations* includes product and real sector accounts.

1.1.2 User information needs

The National Accounts are used as a basis for analysing the scope, structure and progression of the Swedish economy and, as such, provides a basis for both 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 fee and monitoring EU countries' compliance with the Maastricht criteria.

Compared with the quarterly calculations, the annual calculations are based on more comprehensive and detailed information. This means that, for the latter type of use (that is, for administrative purposes) where the level is the most important factor, as well as for analyses of the structure of the economy, it is the annual calculations that chiefly fulfil needs.

Whatever the area of use, there is a need for accurate and comparable information. For many users, it is essential that there are series that enable comparisons over time and with other countries, and that there are 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 calculations, the primary use of which is to assess the current state of the economy. To further fulfil the need for swiftness, a simplified calculation is also performed – the GDP indicator – which is published around 30 days earlier than the ordinary quarterly calculation.

However, note that the quarterly and the annual calculations are not two separate products, but are rather combined. The annual calculations are performed during the second year after the reference year. This means that in

2022, the calculations for 2020 are published. The annual calculation then replaces the earlier, preliminary calculations that have been published quarterly, and where the sum of the four quarters formed a preliminary full-year estimate. For 2021 there are currently four preliminary quarterly calculations, projected from 2020 levels, that are still updated when new information is made available.

The main users of the statistics at the national level are the National Institute of Economic Research, the Riksbank, the Ministry of Finance and other entities working with economic analysis in the business sector, including banks, and in academic research. The National Accounts are also an indispensable source for environmental accounts and regional accounts, which are 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 activity occurring in Swedish territory, and transactions that take place across Sweden's borders. The calculations must include all economic transactions that have been made under a voluntary agreement during the reference period.

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

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

The real sector accounts report production, income redistribution and income expenditure, as well as capital formation in the economy by institutional sector, the final balance of which is financial savings. Here, financial savings are compiled for public administration, the household sector and corporate sector (defined as the sum of non-financial and financial sector) as well as the sum of the international investment position of domestic sectors. As part of the compilation of the household sector's financial savings, the compilation of households' disposable income and savings is included.

In the production account for the real sector accounts, value added from production, by industry, is broken down by sectors of the economy. Within the generation of income account, wages, taxes and subsidies are broken down by sector. Furthermore, net capital income is calculated in the allocation of primary income account.

Income and wealth taxes are broken down into sectors in the secondary distribution of income account, which also contains a sector breakdown of social transfers, with the final balance being disposable income.

The redistribution of income in kind account contains disposable income adjusted for social transfers in kind which, for the household sector, are considered to have better international comparability.

In the use of income account, consumption is broken down by sector and saving is calculated here. In the capital formation account, capital transfers, investments are broken down by sector and financial savings are calculated as a balancing item.

1.2.1 Unit and population

The target population and target units are all domestic institutional entities. These may be non-financial corporations, financial corporations, public authorities, non-profit institutions serving households (NPISHs) or households.

Units other than the institutional entities are used, for example to enable reporting the National Accounts by industry. In accounting by industry, the target unit is the activity unit.

The target population is highly consistent with the populations of interest that can be derived from the purpose of the statistics and user information needs.

Observation units can sometimes 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 based on model estimations.

The National Accounts rarely use individual units, but instead use estimates of statistical target characteristics provided by other statistical products.

1.2.2 Variables

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

The target variables are highly consistent with the interest variables that can be derived from the purpose of the statistics and user information needs.

There are a number of considerable differences between the observation variables and the target variables, particularly for the quarterly calculations. The main difference is that, at the quarterly level, information is missing on value added for most of the business sector. In these cases, the value added is assumed to track gross production. This assumption can then be modified in connection with balancing between the production and expenditure sides of GDP.

The target variable housing cost per square metre is another example of differences between observation and target variables, which is the case for both the quarterly and annual calculations. Here, it is the cost of the rental stock that is observed and assumed to be valid also for owned housing. The

reporting of the sources of uncertainties in Section 2.6 *Model assumption*s mentions a few other differences.

1.2.3 Statistical measurements

Totals in current prices as well as totals, indexes and change figures 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 in both nominal and real terms; that is, adjusted for the progression 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 investment, etc. with certain further breakdowns.
- Industries, aggregate of the *Standard for Swedish Industrial Classification* (SNI 2007), approximately 40 for quarter and 60 for year.
- Institutional sector, five main sectors and foreign sector, *Standard for institutional sector division* (INSEKT 2014). There are some additional breakdowns, in particular for financial enterprises and public administration.
- Purpose, household consumption expenditure according to *Classification of Individual Consumption by Purpose* (COICOP), 12 main purposes for both year and quarter, and approximately 150 categories for year.
- Durability, households' consumption expenditure, approx. 10 categories.

The following breakdowns are only reported for years:

- Investment type, 12 types of non-financial assets according to ESA 2010.
- Product, based on *Standard for Swedish Product Classification by Industry* (SPIN 2007), approx. 60 product groups.
- Purpose, Public consumption expenditure according to *Classification of the Functions of Government* (COFOG), approx. 70 purposes.
- Type of asset, 9 types of non-financial assets according to ESA 2010.

The GDP indicator only presents total GDP, with no breakdown into expenditure components or breakdowns between the expenditure side and the production side.

1.2.5 Reference times

The quarterly accounts, including the GDP indicator, refer to quarters, and the annual accounts refer to calendar years.

2 Accuracy

2.1 Overall accuracy

Reporting accuracy is limited to total GDP and to financial savings in the sector accounts.[1]

The annual accounts, which are published 17 months after the reference year, are in many respects based on more complete and detailed statistics than those available for the quarterly calculations, which are published two months after the end of the reference quarter.

In simplified terms, it can be said that the annual calculation determines the level of GDP and other aggregates in the national accounts system, while the quarterly calculations are a way of distributing the results from the annual calculations to the four quarters, and of producing estimates for the quarters not yet included in the annual calculations.

The National Accounts, both annual and the quarterly, are based on numerous primary statistical sources. Accuracy largely depends on the quality of the different sources and on the model assumptions necessary for estimating the target characteristics of the National Accounts. In some cases, these may differ significantly from the target characteristics of the primary statistics. In some areas there are no recurring short-term statistics produced, or current statistics that exist at all, which makes the model assumptions highly important.

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

GDP from the production and expenditure side are, by definition, identical. However, there is always a discrepancy in the initial stage between these calculations which, as far as possible, should be based on separate sources, and the one that shows the highest or lowest GDP varies.

Part of the compilation process is to balance the accounting system so that the expenditure and production sides exhibit the same GDP. The size of the discrepancy between the two sides varies between years and quarters.

Annual product accounts (GDP)

In the annual calculations, production and expenditure are broken down into approximately 400 product groups. The supply side – production and imports – is placed in relation to the use of each product group. The use consists of intermediate consumption, consumption, gross investment and exports. Due to the uncertainty that exists in the calculation basis, larger or smaller discrepancies arise in the different product balances.

The existence of these discrepancies reveals that there is uncertainty in estimating GDP. By analysing the balances, some errors can be identified and corrected, although in addition an automatic adjustment is needed.

When publishing the reference year 2017, the result of the 2019 annual review was implemented. In connection with this review, a change was made in the

[1]

method for balancing the calculations to obtain one single GDP result. With the new method, applied as of 2015 in the calculations, the analysis process was altered and replaced by a more enhanced automatic balancing method, which takes into account estimated and judged uncertainty in the statistical sources and calculation methods used.[2]

When the reference year 2018 was published in early 2020, the result of a minor review was implemented. The changes in this review were largely due to various EU requirements as part of the revision cycle of the calculations for gross national income (GNI) completed in 2019. Some changes were also made for better coherence between the National Accounts and the Balance of Payments. Also, the methods of the new balancing procedure were reviewed. The model was used in the same way in the calculations of the reference years 2019 and 2020.

Presented below, for certain annual calculations, is the total discrepancy between supply and use before balancing with the balancing model.

Total discrepancy before balancing, supply minus use, current (C) and fixed (F) prices and as a percentage of GDP

2015		2016		2017		2018		2019		2020	
C	F	C	F	C	F	C	F	C	F	C	F
-1.1	-1.2	-1.3	-1.3	-0.5	-0.4	0.8	0.7	0.3	0.5	0.9	1.2

The following can be noted from the summary: the initial discrepancy has varied from -1.3 to 1.2 percent of GDP, and the discrepancy may differ between the calculations in current and fixed prices.

The above shows that there is uncertainty 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 sides, which means that errors in one calculation reappear with the same sign in the other calculation;
2) There are dependencies between years, as some sub-estimates are estimates based on change rates from levels calculated for a previous year and initially balanced then. Such “benchmarks” can be significantly more uncertain than the size of the annual change in the same item.

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

[2] The new balancing method is a minimisation model based on the least square method in which the square of each adjustment is divided by an uncertainty figure. This means that estimations with great uncertainty are adjusted to a relatively greater degree.

Quarterly product accounts (GDP)

The description of accuracy in the quarterly calculations is based entirely on volume calculations, or rather volume changes, as use of the quarterly calculations is greatly focused on these.

Neither for the quarterly calculations nor the volume changes that are estimated is it possible to calculate a measure of uncertainty. Instead, we illustrate the uncertainty in the estimates by looking at the residual item that initially exists between the calculations from the production and the expenditure side.

For the 40 ordinary quarterly calculations over the period 2012–2021, 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 one year earlier. The median for the same period was 1.0 percentage points in absolute terms.

The largest residual item was negative (production side < expenditure side) and amounted to -2.7 percentage points and the lowest was 0.0 percentage points. The largest positive residual item was 1.9 percentage points. On average for the period, the residual item has been slightly negative. The above analysis is based on the first calculation occasion for a quarter. The quarter is revised in future calculation rounds (see section 2.3 below), but the general picture holds true.

In order to report a single GDP result, balancing is performed on the calculations from the production and expenditure sides. This means that one side is adjusted downwards and the other side upwards. Before the balancing, and hence before ending up with the final residual item described above, the calculation results have been analysed and any assessment corrections have been made. Such corrections entail a divergence from the result obtained from the regular statistical source or calculation model. This is done based on clear indications that these are misleading for the calculation period concerned.

As of the calculation round published on 13 September 2019, a model-based adjustment is also done of the calculation from the production side to take account of changes in the input coefficient. The adjustment is estimated with the aid of input and output VAT data. The production and expenditure side are then balanced by the same amount. This approach has been applied for the quarters of 2018 and onwards.

Prior to 2019, the residual item was balanced, after any assessment corrections, using balancing 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.

Real sector accounts

The real sector accounts are based on a great number of sources; partly, value added from the production calculations within the National Accounts, but also other sources such as register data from other authorities and surveys.

For the production of estimations for sector *S.2 Foreign sector,* the Balance of Payments is used. The sum of financial savings of all sectors, including the foreign sector, shall be equal to zero. In the calculations, residuals appear

initially which are balanced by adjusting the sector *S11 Non-financial corporations*. For accuracy in the sum of the domestic sectors' relationship with the foreign sector, see the quality declaration for the Balance of Payments, www.scb.se/fm0001.

One way of illustrating the uncertainty in the calculations by sector could be to compare the outcome for financial saving for various sectors calculated as income minus expenditure ("real national accounts") with the outcome for financial saving calculated in the financial accounts. Uncertainty according to this measurement method varies a great deal between different sectors. Differences in input data sources and calculation methods for calculating what is intended to be measured cause discrepancies.

The discrepancy between financial saving in real sector accounts and financial accounts, by subsector and year, is reported in the sub-variable *DB9 Deviation from financial saving according to financial accounts*.

Accuracy in the calculation of financial saving of the public sector is described in the quality declaration for *Savings of the public sector and gross debt according to the EU's convergence criteria (EDP)*, www.scb.se/nr0108.

2.2 Sources of uncertainty

Causes of uncertainty in the National Accounts come partly from the statistics used by the National Accounts, and partly from own estimation procedures. The latter are based on model assumptions, especially when the statistics used have a somewhat different content than what the National Accounts need.

Overall, model assumptions and measurement are considered to be the two sources of uncertainty that affect the accuracy of the statistics values the most. Model assumptions come from both the National Accounts as well as from the statistics used, while uncertainty due to measurement comes only from the statistics used.

In the assessments of the impact of various sources of uncertainty on accuracy, a rough classification has been used with three categories: small, moderate and large. The categories are used for both quarterly and annual statistics. Quarterly uncertainty is generally greater than annual uncertainty.

Furthermore, uncertainty is even greater in the GDP indicator which is published approximately 30 days before the ordinary quarterly calculation is published. This is because the basis for the GDP indicator is more limited, and model dependency is thus greater, and the short production time does not allow a great deal of time for analysis. When assessing sources of uncertainty below, circumstances pertaining to the GDP indicator have not been taken into account.

During the first quarter 2020, the COVID-19 pandemic came to Sweden, causing a rapid change in the economy. This is not considered to have affected the accuracy of the national accounts in any serious way. The response rate has remained good in general. The required changes to models or other assumptions have been continually described in the in-depth description published each quarter and that is called *Comments on the calculations of quarterly GDP*. See National Accounts, quarterly and annual calculations (scb.se)

2.2.1 Sampling

In the National Accounts' calculations in current prices, a large part of the statistics is based on total population surveys; that is, surveys that do not use sampling.

In cases where sample surveys are used, outdated or limited auxiliary information in the allocation phase can have an adverse impact on sample efficiency. The impact on accuracy due to sampling as a source of uncertainty is considered to be moderate for quarters and low for years.

Fixed price calculations include price indices, which are estimated through sampling. The impact on accuracy in the accounts in fixed prices due to sampling as a source of uncertainty is considered to be moderate.

2.2.2 Frame coverage

Since the National Accounts chiefly work with available estimates from various surveys, the frame at the unit level is rather a conceived frame. One such frame exists for each unit type with which the National Accounts work. In practice, the frame in each underlying statistical survey is the governing factor.

The frames that form the basis of the statistics used can have a certain information lag, which could cause some undercoverage of activity. Based on the quality declarations of the statistics used, the impact on accuracy from frame coverage as a source of uncertainty is considered to be small on the whole.

2.2.3 Measurement

A large part of the quality declarations of the statistics used highlight measurement as a significant source of uncertainty. One important example is price statistics, in which it is in many cases difficult to compare the price of equivalent products over time. One reason is the presence of tailored products, although changes to existing products and the introduction of new ones 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 also includes assets with a productive lifespan of one to three years. Because enterprises have the possibility of directly writing off "consumables" with a lifespan of less than three years, this can make it difficult for them to respond according to the definition of the National Accounts.

The effect on the accuracy in the National Accounts from measurement as a source of uncertainty is considered large.

2.2.4 Non-response

For the statistics used that apply direct collection, there is in most cases an obligation to provide information.

The impact on the accuracy of the National Accounts due to non-response as a source of uncertainty is considered to be moderate for quarters and small for years.

2.2.5 Data processing

Production of the National Accounts features reasonability assessments of the primary statistics used as a basis and of the calculation 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 better accuracy than the sources 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 accuracy from data processing as a source of uncertainty is considered to be small.

2.2.6 Model assumptions

As mentioned in section 2.1 above, a number of model assumptions are made for which primary statistics, which are directly adapted to the needs of the National Accounts, are not available. Below are some of the most important model assumptions:

1) Given that information on value added from the business sector is largely absent for the quarterly calculations, value-added is assumed to track gross production (see section 1.2.2).
2) The calculations of value-in-use for homeowners are largely model-dependent. This applies in particular to values in current prices, since the valuation of such housing is a particularly difficult issue. Volume progression is also highly model-dependent, albeit less susceptible in the short term to model errors, as it is based on the progression of the housing stock, which is a relatively sluggish variable. The aforementioned housing costs apply in the same way to the production (for own final use) of corresponding housing services in owned homes. The uncertainty in the model assumptions is therefore not reflected in the residual item.
3) The estimation of housing investments is based on the housing starts statistics. By assuming a certain construction period for single- and multi-dwelling buildings, the number of unit starts is modelled for investments in the following quarters. The model carries uncertainty, as it can be assumed that construction times change in the long term and also vary in the short term. There is strong dependence between these calculations and the calculation of construction output and, for this reason, the uncertainty due to modelling will only be reflected in the residual item to a limited extent.
4) The production of R&D and own end-use software in which enterprises invest is valued based on the production cost plus a model-based profit mark-up. For software in particular, the calculation of the

production cost is also model-based. The calculations are made primarily on an annual basis, while the quarterly calculations are based on the assumption that production changes in line with the enterprises' market production. The uncertainty is not reflected in the residual item but affects the production and expenditure side 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. One example is student hours for education. As student hours are a simplified expression of the production of education, some uncertainty arises in the volume estimates. In addition, quarterly calculations also use forecasting models for certain volume measures.
6) In the current calculations of household consumption expenditure, the result is largely based on change estimates based on turnover data for industries supplying goods and services to households. It is based on the assumption that the distribution in these industries' sales to households and other customer categories does not change. The uncertainty mainly concerns the quarterly accounts.
7) For off-the-books 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 on-the-books and legal activities.
8) The household income supplement for residents of tenant-owned homes intends to measure the difference in the estimated basic rent (i.e. excluding heating/hot water) and the final expenditure item of households. Here, it is based on the basic rent for residents of tenant-owned homes, and estimates of the final expenditure item (i.e. of heating/hot water). Basic rent is based on model assumptions and is included in Household consumption.

Model assumptions are also made in the statistics used. 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 as a source of uncertainty is considered to be large. As stated above, not all uncertainties from model assumptions are reflected in the residual item because some models affect the production and expenditure sides in the same way.

2.3 Preliminary statistics compared with final statistics

Quarterly calculations

In connection with each quarterly calculation, previous periods are revised according to established rules.[3] The size and direction of the revisions vary.

[3] https://www.scb.se/contentassets/98ad025983d440a2ab20f2f3fad0e321/revideringspolicy_nr0103_20200331.pdf

For the quarters published for the years 2014–2020, the average revision of the rate of growth (relative volume change of GDP compared with the corresponding quarter of the closest year) on the *first* 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 (the average is -0.02 percentage points) and the revisions have ranged from -0.5 to 0.3 percentage points.

The revisions on the *second* and *third* revision occasions have on average been insignificantly smaller than on the first occasion. The third, second and first quarters are subject to a further one, two and three revision occasions, respectively, before all quarters are revised again in connection with final annual calculations for year *t*-2 having been carried out and published in May in conjunction with the release of Q1 for year *t*.

The revisions on the *fourth* and *fifth* revision occasions have on average been somewhat smaller than on the first three revision occasions, while the *sixth* revision occasion, which only concerns Q1, has on average been revised much less. The size of the revisions in the second to the sixth revision occasions have varied between -0.8 and 0.6 percentage points.

Still after these six revision occasions, positive and negative revisions have on average over the six occasions largely cancelled each other out. (On average, quarters have been adjusted downwards by -0.03 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 years 2014–2019, the growth rate has been adjusted upwards by close to 0.07 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 adjacent years. The greatest difference between the final annual calculation broken down by quarters and the initial calculation of a quarter was 1.0 percentage points, but the greatest negative revision was -1.0 percentage points.

Seasonally adjusted series are revised in full on each computation date. Viewed over the 24 quarters of 2014–2020, the average revision of the seasonally adjusted *quarterly* rate of growth was just shy of 0.2 percentage points on the first revision occasion, calculated in absolute figures, then gradually decreasing to 0.1 before the final annual calculation once again leads to a major revision. The revisions have (before the annual calculation) ranged from -0.8 to 0.6 percentage points.

The revisions of the GDP indicator can be expected to be slightly larger than in other quarterly calculations, since the indicator relies on more preliminary and incomplete sources. Based on a comparison with the first release of the eight regular accounts since 2020Q1, the average absolute standard error of the indicator is 0.4 percentage points on annualised GDP growth.

Revisions to the real sector accounts can be aptly stated as a revision to financial saving. For the household sector, the revision of disposable income and saving after consumption is also of interest to study.

The financial saving by subsector of the sector accounts is affected by revisions within the product accounts, for example in revisions of the components in the balance of resources, income or production. For example, the savings of households is affected by revisions to private consumption within the balance of resources.

Additionally, the sector accounts are revised due to revisions within public administration, which has several counterpart sectors in the economy. For example, household disposable income is affected by revisions in public administration when income and wealth taxes are revised, or taxes on production for the self-employed. Furthermore, household disposable income is also affected by revisions to social transfers within public administration.

Direct revisions in the sector accounts derive from methods that are prepared when reviewing calculations and through new and updated sources becoming available over time and being used for calculations. The real sector accounts are revised according to the revision policy for the National Accounts (NR0103).[4] The in-depth description of quarterly GDP describes which revisions have been made within the real sector accounts; that is, revisions within public administration and other sectors in the economy. Also, financial saving contains all updated sources from the product accounts.

Annual calculations

A major review, or revision, is carried out approximately once every five years. On these occasions a review is performed on all or parts of the time series. The need to review can arise for many reasons, such as the availability of new or improved statistical surveys, changed definitions within the regulatory framework governing the National Accounts or the introduction of new or improved methods. Revisions of this kind chiefly cause a change in the level of the series, while the consequences for the relative progression are generally small.

The result of the last general review was published in September 2019 in connection with the publication of the annual calculation for 2017. For 2016, which was the last annual calculation before the general review, GDP was adjusted upwards by 0.7%. The same regulations apply before and after the review. Hence, the calculations were not affected by any new definitions. Rather, the revisions are entirely attributable to new sources and methods, affecting many components.

The review of sources and methods in 2019 was the most comprehensive of its kind in many years. An important change was the introduction of the survey *Structural Business Statistics* in the calculation of production and intermediate consumption for a number of industries that were previously based on other sources. This, for instance, implied a higher production value within the trade

[4] See https://www.scb.se/contentassets/98ad025983d440a2ab20f2f3fad0e321/revideringspolicy_nr0103_20200331.pdf

sector. The value of the production of trade is the margin that trading companies add to the purchase price of goods for resale. On the expenditure side, the heightened production within trade was equalled by an increase in, amongst other things, household consumption.

Detailed information regarding the latest general review can be found on the product page, www.scb.se/nr0103, and in the publication *Sweden's economy – a statistical perspective* no. 2 2019, available at www.scb.se/nr0001.

In connection with publishing the annual calculation for 2018, the results of a minor review were implemented. For 2017, which was the last annual calculation before this minor review, GDP was adjusted upwards by 0.2 percentage points. Detailed information on the latest review is provided on the product page, www.scb.se/nr0103.

The immediately preceding general review was 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 performed 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 investment, which contributed almost 4 percentage points to the increase in GDP level. The journal *Sweden's economy – a statistical perspective* no. 2 and no. 3, 2014, available at www.scb.se/nr0001, contains articles describing the regulatory changes and the other revisions. Descriptions are also found in *Statistical Reports, NR 10 SM 1501, National Accounts 1993–2012.*, available atwww.scb.se/nr0103.

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

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

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 additional years were also made. For more information on these revisions, please refer to *Statistical Reports NR 10 SM 1801 National Accounts 2016*, available at www.scb.se\nr0103.

The next revision to the time series is scheduled for 2024, referencing the year 2022.

3 Timeliness and punctuality

3.1 Production time

The quarterly accounts are published within 60 days, or a maximum of two months, following the end of the quarter concerned. The GDP indicator is published after 30 days.

The annual calculations are published 17 months after the end of the year.

"Preliminary annual estimates", as they are termed in certain contexts, are simply the sum of the four quarterly calculations for a calendar year performed before an annual calculation is complete. Therefore, the first preliminary annual calculation for a certain year is published at the same time as the fourth quarter calculation.

3.2 Frequency

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

Annual accounts refer to years and are produced and published annually. They are largely based on annual statistics, although short-term statistics are also used in some areas, for example in foreign trade in goods. In one case – for research and development (R&D) – statistics collected every other year are also used. In the R&D survey, data regarding the outcome for the previous year, and a forecast for the current year, are submitted.

3.3 Punctuality

The 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 series published by the National Institute of Economic Research, and in the finance plan prepared by the Ministry of Finance.

4.2 Possibility of obtaining additional statistics

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

4.3 Presentation

On Statistics Sweden's website, www.scb.se/nr0103, there are ready-made tables in spreadsheet format and key figures.

Furthermore, there are statistical news bulletins and in-depth texts that explain the progression and describe the balancing between the production and expenditure side and revisions made of previous periods.

In the Statistical Database, www.scb.se/statistikdatabasen, users can create tables and charts themselves.

4.4 Documentation

System of National Accounts, SNA 2008[5], is available in many different languages, including English, but has not been translated to Swedish. ENS 2010 is the Swedish version of *European System of national and regional Accounts*, ESA 2010[6].

A volume of documentation is available on Statistics Sweden's website (www.scb.se/nr0103). The quality of the statistics is described in this document, *Quality Declaration*. Detailed information about variables and value sets is provided in the *Detailed content of the statistics* (MetaPlus). The *In-depth information* also contains a number of published documents, including:

- Calculation procedures for the GDP indicator.
- Balancing GDP.
- Documentation of calculations for GDP, sector and GNI (*GNI inventory*, in English only).
- Documentation regarding sources and methods for the quarterly GDP calculations (*QNA inventory*, in English only).
- Documentation regarding sources and methods for the quarterly sector accounts (*QNA inventory*, in English only).
- National wealth, documentation.
- Definition of terms in the National Accounts.
- Brief information about the National Accounts.
- Revision policy.
- Description of the input-output table package.
- Comprehensive information on changes as a result of the new accounting standard ESA 2010.

5 Comparability and coherence

5.1 Comparability over time

The series in accordance with the ESA 2010 usually begin in 1980, or in some cases in 1993. The GDP series on the expenditure side (balance of resources) has been published since 1950. The time-series perspective is very important in the National Accounts, and the calculations must show both the correct level and progression over time. This applies to both quarterly and annual accounts.

[5] https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf
[6] https://ec.europa.eu/eurostat/documents/3859598/5925693/KS-02-13-269-EN.PDF/44cd9d01-bc64-40e5-bd40-d17df0c69334

To avoid breaks in the time series as far as possible, new information between revisions is processed such that existing levels are projected with the right progression based on the new information. In the next revision, previous periods that are "open" at the time of revision are adjusted.

When an annual calculation of the National Accounts has been performed and a new level has been calculated for the calendar year concerned, an adjustment is made to the existing quarterly estimates for that year and for subsequent years up to the quarter concerned, as well as to the two years immediately preceding the year that the annual calculation concerns. This adjustment is made to ensure that the difference between gradual quarterly changes is minimised when the new level for the year replaces the previous 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 balance of resources that shows the main aggregate 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 the balance of resources and the production side of GDP, the reported sub-aggregates are adjusted to achieve sum consistency with total GDP, for quarters in the year concerned and quarters in the year previous to the year concerned (reference year). Seasonally adjusted data for real sector accounts, on the other hand, is not sum-consistent.

In 2020, changes in GDP were unusually large as a result of the COVID-19 pandemic. The seasonal adjustment model identifies outliers to enable distinguishing more extreme events from ordinary seasonal variation. Nonetheless, some substantial revisions have occurred when a new quarter has been added and the series have been adjusted. This is explained by some variables having gone from being outliers to not being outliers, or vice versa. All identified outliers are published quarterly in an Excel file, and the revisions are described in *Comments on the calculations of quarterly GDP.*

In addition, it has been necessary to make adjustments in the model for the sake of sum consistency. Normally, all sectors of the economy are included in the model, which ensures sum consistency in the seasonally adjusted GDP series and its sub-aggregates. In 2020, it was not reasonable to allow the inclusion of the public sector, as it would have given unreasonable growth rates. The sector was therefore excluded, which is also described in text.

In the major reviews performed around once every five years (see section 2.3), prior years are also recalculated in order to eliminate, or at least minimise, the break in time series. The absence of relevant and reliable data is often 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 levels are adjusted proportionately as much as in the earliest year in which data could be used.

5.2 Comparability between groups

National conditions differ in terms of the data on which National Accounts are based, which is why there are limits to comparability between countries. The National Accounts follow the *European System of National and Regional Accounts,* (ESA 2010), which is an internationally comparable accounting system and applies as law in Member States.

The ESA 2010 is fully consistent with the *System of National Accounts* (SNA 2008), which was prepared jointly by the UN, IMF, EU, OECD and the World Bank. However, the ESA 2010 focuses more on conditions and data needs in the EU.

Just like the SNA, the ESA is harmonised as regards the terms and classifications that are used in many other social and economic statistical systems. This is why the ESA can serve 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 ensure quality and comparability among the different countries. Nonetheless, disparate conditions mean that, even within the EU, there are also certain limitations in comparability.

At national level too there may be limitations in comparability, between for example industries, product groups, sectors, asset classes, types of inventory, since source documentation may differ, with disparity in terms of aspects 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 the exact same data in the national account system. When the National Accounts are compiled and reconciled, large quantities of primary statistical data is used. The source data used often has coverage and definitions that do not entirely correspond to the national account system's requirements, which is why additions and corrections are made.

In the National Account system, data is checked and tested for consistency. If available data does not provide a coherent picture of the economic development, this prompts adjustments in the National Accounts. In the Swedish National Accounts, a total calculation of the GDP from both the production side and the expenditure side is made. These calculations never show exactly the same GDP progression, which is why corrections to various underlying data are made. This may lead to a difference in primary statistics and the National Accounts in published information. Differences may also occur due to different timeliness. Furthermore, in some cases, differences occur in definitions between primary statistics and the National Accounts.

5.4 Numerical consistency

Reporting in reference year prices (volume figures 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, apart from for the reference year and the subsequent 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 different industries' share of total growth. Each individual series must be calculated separately and at the suitable level of analysis.

In addition, the annual and quarterly calculations have different reference years. While annual calculations are reported with reference year 2015, quarterly calculations are calculated using the latest calendar year 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. For important aggregates, the subseries are however adapted so that they can be summed up for the year concerned and the previous year (see 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 accessibility, 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 the processing of personal data

In government agencies' specific task of producing statistics, confidentiality applies in accordance with Chapter 24, Section 8 of the Public Access to Information and Secrecy Act (2009:400). This product does not process personal data.

C Archiving and discarding material

No special regulations apply regarding discarding materials. The results are stored long-term.

D Obligation to provide information

National Accounts are calculated based on data from other statistics producers (mainly Statistics Sweden, but also other agencies responsible for statistics), administrative material and other information. Information concerning the obligation to provide information is set out by 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 (2001:99).

E EU regulations and international reporting

National Accounts, quarterly and annual calculations, are regulated by:

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.

This 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.*

Reporting of gross national income (GNI) for own resources is regulated by:

REGULATION (EU) 2019/516 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 March 2019 on the harmonisation of gross national income at market prices and repealing Council Directive 89/130/EEC, Euratom and Council Regulation (EC, Euratom) No 1287/2003 (GNI Regulation).

Data is transmitted to Eurostat and the OECD with every publication using set templates for all EU Member States. Other international organisations, such as the *International Monetary Fund* (IMF) and the *European Central Bank* (ECB) receive regular information. Tables transmitted to Eurostat are also published on Statistics Sweden's website, www.scb.se/nr0103.

F History

Responsibility for the National Accounts 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 regulations, *System of National Accounts*, SNA, 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, own 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, is the regulation 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 onwards. 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 calculated since 1970.

G Contact details

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Appendix 1 – Central target and observation variables

Product accounts

From the production side:

B1b Value added

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* of *taxes on products* and *subsidies on products* is *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 consist of a determined amount per unit of a good or service, or be calculated as a determined percentage of the price per unit or value or the goods or services (ESA, Section 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 produced or imported good or service (ESA, Section 4.33).

From the expenditure side:

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 wants, or the collective needs of members of the community. 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 **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 organisations that are separate legal entities that serve households and are private *non-market producers*. Sports clubs, trade unions and religious communities 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, such as all households in a certain region. Defence and the 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 that arose through the productive activity of a producer or *institutional unit*. *Fixed assets* are produced *assets* used in the *production* for more than one year. (ESA, Section 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, Section 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, Section 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, Section 3.159).

From the income side:

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, Section 4.02). Compensation of employees is made up of the following components:

- *actual wages and salaries*: cash wages; benefits 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, Section 4.02). Compensation of employees is made up of the following components:

- *actual wages and salaries*: cash wages; benefits in kind
- employers' *social contributions*

B2b Gross operating surplus

Balancing item in the generation of income account (ESA, Section 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 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.

B3b Total gross earnings

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 performed for the company. The surplus is therefore a combination of compensation for this work and return 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 are taxes that are payable per unit of a given good or service produced or transacted. The tax may consist of a determined amount per unit of a good or service or may be calculated as a determined percentage of the price per unit or value or the goods or services (ESA, Section 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, Section 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 produced or imported good or service (ESA, Section 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 key variables:

S1 Number of persons in employment

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

Real sector accounts

B1gb Gross value added to base price

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* of *product taxes* and *product subsidies* is *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 consist of a determined amount per unit of a good or service or may be calculated as a determined percentage of the price per unit or value or the goods or services (ESA, Section 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 produced or imported good or service (ESA, Section 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* or 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* (*actual 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, Section 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, Section 4.02). Compensation of employees is made up of the following components:

- *actual wages and salaries*: cash wages; benefits 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, Section 4.02). Compensation of employees is made up of the following components:

- *actual wages and salaries*: cash wages; benefits in kind
- employers' *social contributions*

B2n Operating surplus, net

Balancing item in the generation of income account (ESA, Section 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 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 performed for the company. The surplus is therefore a combination of compensation for this work and return 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, Section 4.22). Tax on motor vehicles is an example of other tax on production. Cf. *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. Cf. *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, Section 4.41).

B5g GNI, Gross national income/primary income, 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 pay 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, Section 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 the following groups: 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 transfers in kind include individual goods and services provided to individual households for free or at prices that are not economically significant by public administrative units or NPISHs, independent of whether the goods and services are purchased on the market or produced as *non-market production* from public administrative units or NPISHs. They are financed out of taxation, other government income or social security contributions, or out of donations and *property income* in the case of NPISHs. (ESA, Section 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.72), 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 Disposable income, net

Disposable income, net equals *primary income, net* plus *current transfers* received minus *current transfers* paid (current income and wealth taxes, etc. social contributions and benefits and other current transfers).

B7n Adjusted disposable income, net

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, Section 3.94). Compare with *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 households' actual consumption.

P41 Actual 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 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, such as all households in a certain region. Defence and the 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'* final consumption consists entirely of collective consumption while its total consumption expenditures also comprise 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 Saving, net

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, Section 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 unit*. *Fixed assets* are produced *assets* used in the *production* for more than one year. (ESA, Section 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, Section 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, Section 3.154). Art objects and antiques 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 clean-up costs of landfill sites. Such terminal costs are recorded as consumption of fixed capital at the end of the service life of the *assets*, when the terminal costs are recorded as *gross fixed capital formation*. (ESA, Section 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, uncultivated biological resources, water resources, radio spectra, other natural resources.

B9 Net borrowing/lending

The part of *gross* disposable income that is not consumed or used for capital formation (capital transfers, gross investments or net acquisition or non-produced assets). For the total economy, this represents the net resources that the total economy makes available to the *rest of the world* (if it is positive) or receives from the *rest of the world* (if it is negative). The net lending (+) or borrowing (–) of the total economy is equal but of opposite sign to the net borrowing (–) or lending (+) of the *rest of the world.* (ESA, Section 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. This concerns trade in goods and services, primary incomes and current transfers with the rest of the world.