



# QNA INVENTORY OF THE SLOVAK REPUBLIC



STATISTICAL  
OFFICE  
OF THE SLOVAK  
REPUBLIC

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## Introduction

The purpose of compiling QNA Inventory is to provide a brief description of compiling quarterly estimates of GDP and its components. The compilation of quarterly GDP estimates is based on the ESA 2010 methodology.

Structure of this document is based on Eurostat's recommendation to compilation of the QNA Inventory (Standard structure of the QNA Inventory).

This document is supported by numerical tables. This description is compiled on the basis of the quarterly estimate of GDP in the third quarter of 2018. The specific tables are from the first data precision of the GDP estimate.

The publication of QNA Inventory was compiled by SO SR and coordinated and supported by Eurostat in line with the Grant agreement number ESTAT- 2020-PA2-PA4-C-NA.

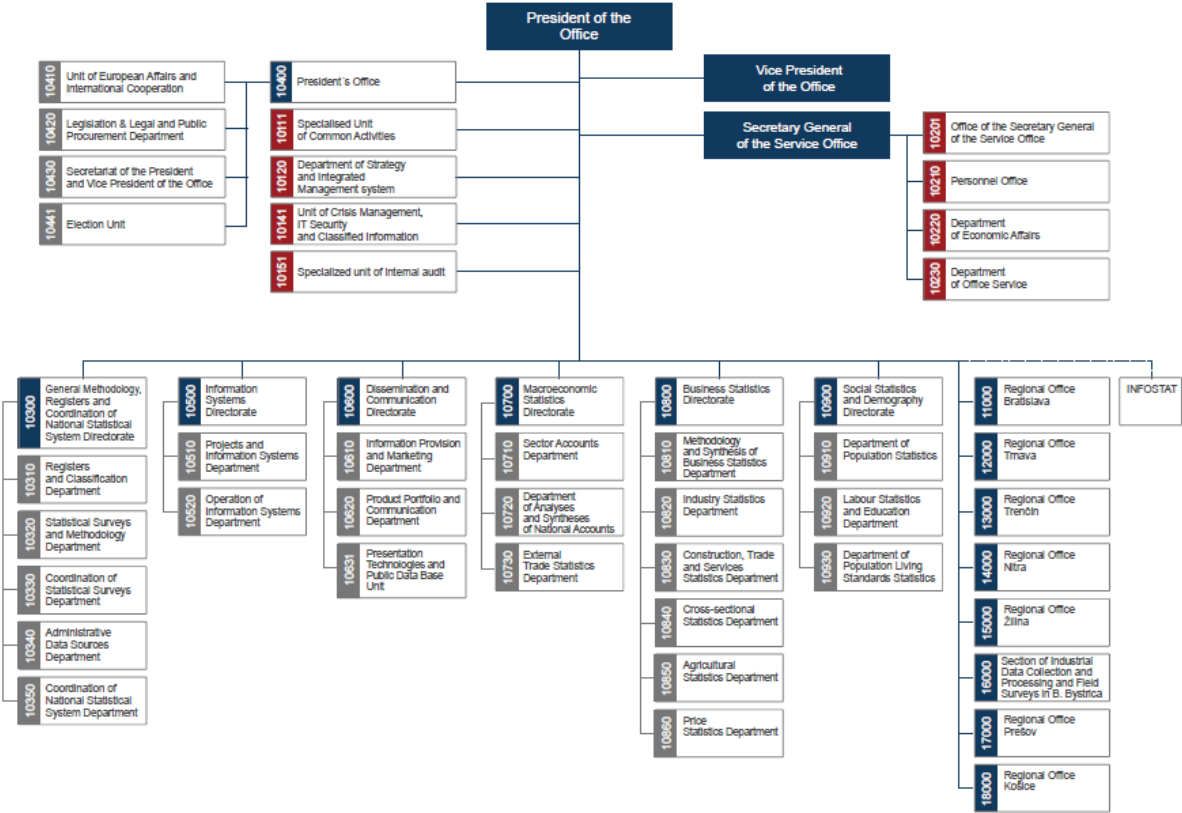
# Chapter 1 - Overview of the system of quarterly accounts

## 1.1 Organisation and institutional arrangements

The Statistical Office of the Slovak Republic (hereinafter SOSR) is the central government body of the Slovak Republic for the state statistics domain. Its position is regulated by the Law No. 575/2001 Coll. on the organisation of the activities of government and the central government bodies as amended. The SOSR performs its activities according to the Law No. 540/2001 Coll. on state statistics as amended and the tasks declared by other generally binding legal rules, fully in compliance with the equivalent legal standards of the European Union. At the same time, it ensures the comparability of statistical information and carries out the obligations resulting from the international agreements in the area of state statistics, by which the Slovak Republic is bound.

In addition to the headquarters in Bratislava, the tasks of state statistics are performed also by eight regional workplaces of the SOSR located in Bratislava, Trnava, Nitra, Trenčín, Žilina, Banská Bystrica, Košice and in Prešov.

The current (valid for 2021) internal organisational structure of the SOSR is presented by the following chart:



**Quarterly National Accounts (QNA)** are compiled by the Macroeconomic Statistics Directorate within the SOSR. **Directorate of Macroeconomic Statistics** is responsible for the generation and dissemination of selected statistical products and

provides advice and consultations for the area of national accounts, foreign trade statistics, requirements of external and internal customers, as well as of the relevant legislation of EU and the SR. From the methodological standpoint, it controls the implementation of the EU regulations in the field of national and regional accounts and the foreign trade statistics, ensures the transformation of data from the business book-keeping systems into the system of national accounts and compiles and balances the national accounts. It carries out the activities related to the communication with the users and activities connected to the methodological preparation of relevant statistical surveys, verification, and analysis and balancing of results of the statistical surveys in order to achieve the required quality and consistency of final statistical products. The Directorate cooperates with the Directorate of the General Methodology in searching and investigating the administrative data sources. In line with the development within the ESS framework, it is responsible for the conceptual development of national accounts methodology according to the European System of National and Regional Accounts and, at the same time, it ensures the conceptual elaboration of the foreign trade statistics.

**Directorate of Macroeconomic Statistics (S700)** is managed by the Director General (DG) in accordance with the relevant standards of the quality management system; at the same time, the DG decides on the approach appropriate for ensuring of all activities which are to be carried out under the competence of this Directorate broken down into particular departments and divisions by follows:

- Sector Accounts Department (710)
- Department of Analyses and Syntheses of National Accounts (720)
- External Trade Statistics Department (730)

Sector Accounts Department (710) consists of 19 employees, including the director and three heads of divisions. In general, the employees from Department of Sector Accounts are responsible for both the compilation of annual and quarterly sector accounts including QNA and ANA. Particularly, 14 employees from this Department are responsible for the compilation of QNA data as well.

The director of the Sector Accounts Department is Mr Michal Čepela, [michal.cepela@statistics.sk](mailto:michal.cepela@statistics.sk)

Department of Analyses and Syntheses of National Accounts (720) consists of 10 employees including one director of which 4 employees are involved in the process of compiling QNA.

The director of the Department of Analyses and Syntheses of National Accounts is Mr Jozef Rosík, [jozef.rosik@statistics.sk](mailto:jozef.rosik@statistics.sk)

External Trade Statistics Department (730) consists of 12 employees including 1 director and two heads of units. Only 1 person prepares quarterly data for export and import of goods which enter into the process of compiling QNA.

The director of the External Trade Statistics Department is Ms Alžbeta Ridzoňová, [alzbeta.ridzonova@statistics.sk](mailto:alzbeta.ridzonova@statistics.sk)

## 1.2 Publication timetable, revisions policy and dissemination of QNA

For quarterly accounts the flash estimate of GDP is usually available within 45 days after the end of the reference quarter. More detailed results are available within 70 days after reference quarter. At the same time, selected quarterly accounts for S.13 and S.2 sectors are available. The publication schedule is available on the website of SO SR in the calendar of the first publication.

<https://bit.ly/3CRtQ0r>

Calendar contains a timetable for the first publication of selected indicators. Data are published on the website of the SO SR ([www.statistics.sk](http://www.statistics.sk)) on the same day at 9.00 in the Information reports catalogue. Notice of specification of terms is also published on the website of SO SR.

Subsequent revision of data is carried out on the basis of obtaining additional and more accurate data from administrative data sources and statistical surveys. Quarterly data for the 4th quarter and the summary of quarters are also presented as „estimate“ of the annual account (t-1 year). With the publication of annual national accounts the quarterly national accounts are revised based on annual data, **which are then published**. Quarterly accounts from 2020 onwards, are regularly revised according to the revision policy in line with revision changes of the annual national accounts twice a year. This means that the **first revision** of the quarterly accounts assumes a more precise data, as in case of annual national accounts, on the basis of obtaining more accurate data from administrative data sources, based on results from annual statistical surveys and from spring EDP notification of the general government sector in the period t+5 months of the current year. **Second revision** of quarterly national accounts is carried out at period t+10 months of the current year in line with revision changes of annual national accounts, which include precision of results from autumn EDP notification.

Data are preliminary at the time of first publication. The data become definitive after the closure of the annual national accounts and supply and use tables 3 years after the end of the reference year. Preliminary and definitive data are distinguished separately in the published materials.

Revision policy is published on SO SR website, including the annually updated revision calendar.

<https://bit.ly/3oiCfpF>

## 1.3 QNA compilation approach

Quarterly national accounts are compiled on the basis of the ESA 2010 methodology (European System of National Accounts). The quarterly estimate of GDP is based mainly on the production and expenditure method. These two methods enter as counterparties into the balancing process.

When compiling quarterly national accounts, the SOSR uses both direct and indirect procedures. Direct procedures are based on source data, which are to some extent modified to be comparable to annual source data. Statistical as well as administrative data sources are used. Indirect methods are used in case that the relevant data sources are not available. This means estimating data based primarily on annual national accounts values.

#### **1.4 Balancing, benchmarking and other reconciliation procedures**

GDP estimates are compiled on the basis of two independent methods - the production method and the expenditure method. The income method of estimating of GDP does not enter the balancing process because the gross operating surplus is a residual item. The difference between these two methods is the elimination in the balance sheet process.

#### **1.5 Volume estimates**

Seasonally (and calendar) adjusted chained volume measures of QNA are generally obtained by direct adjustment of chained time series, followed by a benchmarking of the adjusted chain-linked series. The chaining of quarterly indicators is done by the Annual Overlap method.

#### **1.6 Seasonal and calendar adjustment**

Main aggregates of QNA are provided in unadjusted (i.e. original) form as well as in seasonally and calendar adjusted form in line with the ESA 2010 transmission programme. The adjustment for calendar effects (working or trading days) is performed only for those time series for which these effects are statistically significant and plausible. Seasonally and calendar adjusted data are provided in current prices and chain-linked volumes with reference year 2015. Seasonally adjusted employment data are provided in persons and hours worked.

Actually working or trading days adjustment (including leap year effect where significant) is applied only for variables of final consumption expenditure, exports, imports and employment in hours worked. Other variables (including GDP) were tested with no significant calendar effects and thus they remain to be only seasonally adjusted.

For the seasonal and calendar adjustment TRAMO-SEATS method implemented in the software tool JDemetra+ version 2.2.3. is used. Generally the seasonal and calendar adjustment practices of SO SR follow the recommendations of ESS on seasonal adjustment.



## **1.7 Additional information**

Further information on national accounts in SR can be found at website:

<https://bit.ly/3uiWpkf>

Database of SO SR can be found at website:

<https://bit.ly/3m8JaPo>



## Chapter 2 - Publication timetable, revisions policy and dissemination of QNA

### 2.1 Release policy

The data publishing is governed by a valid legislation (Act of Law No. 540/2001 on State Statistics as amended) and internal legal rules (ROZ-5/2013 decision of the President of the SOSR, by which the Principles of publishing and provision of statistical data are issued).

The published data might have the following quality degrees:

- **Flash estimate** – estimate of the given indicator based on the available information or the extrapolation of trends.
- **Improved estimate** – figure being obtained based on the results of the short-term reporting and the use of available administrative data sources.
- **Preliminary estimate** – figure being compiled from the verified and revised data sources used for the compilation of the improved estimate or figure, which is available in the time of the 1st publishing. It can be compiled in the lower range of indicators.
- **Semi-definitive estimate** – figure revised based on the improved statistical questionnaires and administrative data, as well as on complementary information.
- **Definitive figure** – has been compiled from the verified revised reports, administrative sources and data obtained based on the improved statistical-mathematical methods and on the complementary information. The definitive figure changes only in the case of extraordinary revisions that is such a figure is unchanged over time.

**From the subject-matter standpoint**, the following can be considered as reasons for revision:

- Incorporation of better-quality data based on a more complex data source, including the replacement of imputations by collected data,
- Improvement of data due to the updating of seasonal factors and the change in the base period,
- Improvement on the basis of an updated methodology (in concepts, definitions and classification) and changes in statistical methods,
- Corrections made in source data and calculations.

**From the timing point of view**, the revisions are broken down into:

- **current revisions** are revisions without any essential modifications of methodology. Usually some important corrections of data, including new values obtained from new data sources, are in question. They are carried out periodically in the precisely determined dates, for the updating of monthly and quarterly data, until the next closest data publishing,

- **annual revisions** are revisions, which are made provided all the monthly and quarterly data and the more detailed results from annual surveys are available,
- **ad-hoc and major revisions** are revisions of definitive data due to important methodological changes resulting from the revisions of methodologies, changes in statistical and mathematical methods, calculations or data corrections. A special revision may result in the break in data comparability in time (e.g. due to change in definition).

Basic rules and general procedures applied in terms of revisions are governed by the Directive on revisions of the SO SR and the Decision of the President of the SO SR, by which a revision calendar has been issued (updated each year). The revision policy of the SO SR was first published in 2015, compliance with the Harmonized European Policy was subsequently ensured by the internal Directive SME-1/2020 and its updating in the following year by the Directive SME-2/2021.

Revisions are made according to the **calendar of revisions**, which is determined for particular statistics in days (d) and months (m) from the reference period (t) or in years (r) before or after the current reference period (t).

For marking the dates of revision, the following abbreviations are used:

- **t+d** (t+45 days, t+70 days, etc.) means the reference period plus the number of days from the reference period,
- **t+m** (t+4 months, t+9 months, etc.) means the reference period plus the number of months from the reference period,
- **t±r** (t+1 year, t-2 years, etc.) means the current reference period plus the number of years following the current reference period or minus the number of years preceding the current reference period.

The announcement of revision with the date of publishing of revised data precedes the release of the revised data. The announcement is published at the Office's web page at least two days prior to the publishing of revised data. Information on the current and annual revisions is part of methodological explanations of relevant monthly, quarterly and annual publications and the particular databases of the SOSR, if the revisions are related to the data in databases.

The revised data are usually complemented by information on the origin, importance and evaluation of revisions, which is published on the webpage at the time of the release of revised data.

The time table for revision of annual and quarterly national accounts data is carried out in compliance with the Annex B of the Regulation of European Parliament and the Council No. 549/2013 as of 21 May 2013 on the European System of National and Regional Accounts in the European Union (ESA 2010). The aim of the national accounts revision policy is to achieve consistency in the data transmitted under the ESA2010 Transmission Program in accordance with the Harmonized European revision policy.

Quarterly accounts are revised regularly in accordance with the revision changes to the annual national accounts. This means that the first revision of the quarterly

accounts assumes a refinement of the data as for the annual national accounts based on more accurate data from administrative sources, the processing of annual statistical reports and the spring EDP notification of the general government sector at t + 5 months of the current year. The quarterly data for the 4th quarter and the summary of the quarters for the year are also presented as an "estimate" of the annual account (t-1 year).

The second revision of the quarterly national accounts will be carried out at t + 10 months of the current year in accordance with the revision changes to the annual national accounts, which include the refinement of the results of the autumn EDP notification.

In accordance with the revision policy valid from January 1 2020, SO SR has since performed 4 revisions for the annual account of 2018.

The "flash estimate" of GDP is published t + 45 days. These data are revised to the "preliminary" version at t + 70 days. The quarterly data for the 4th quarter and the summary of the quarters for the year are also presented as an "estimate" of the annual account (t-1 year).

A brief overview of the application of the publication policy and the revision policy is summarized as an illustrative example in the following table for the 3rd quarter of 2018.

**Table 1 - Overview of quality grades of quarterly GDP for the 3rd quarter of 2018**

Quality grades	Date of publication on the website of the SOSR	Availability from the reference period	Main sources used and the basis for the calculation
Flash estimate	14.11.2018	t+45 days	GDP estimate obtained on the basis of available current information, resp. extrapolation of trends
Improved estimate	07.12.2018	t+68 days	an estimate of GDP and its components obtained on the basis of the results of short-term reporting and the use of available administrative resources
<i>Preliminary date as of 31.12.2018</i>			<i>for the GDP indicator, no new data sources are available at this time to improve and correct possible errors</i>
Revision according to annual accounts + benchmark revision	28.10.2019	t+13 months	data on GDP and its components revised on the basis of annual statistical reporting and administrative sources, as well as additional quarterly information + according to the planned large benchmark revision of the annual accounts
Spring revision according to annual accounts in 2020	30.04.2020	t+19 months	data on GDP and its components revised on the basis of refinement of annual statistical reporting and administrative sources, as well as additional quarterly information with a link to the spring notification of the general government deficit and debt

Autumn revision according to annual accounts in 2020	30.10.2020	t+25 months	data on GDP and its components revised on the basis of the implementation of new information of the Regional Office and refinement of source data, as well as additional quarterly information with a link to the autumn notification of the general government deficit and debt
Spring revision according to annual accounts in 2021	30.04.2021	Is being prepared	data on GDP and its components revised on the basis of the implementation of new information of the annual accounts in connection with the spring notification of the general government deficit and debt, implementation of improvements and corrections of possible errors
Autumn revision according to annual accounts in 2021	29.10.2021	Is being prepared	data on GDP and its components revised on the basis of the implementation of new information of the annual accounts in connection with the autumn notification of the general government deficit and debt, implementation of improvements and corrections of possible errors
<i>Definitive figure as of 31.12.2021</i>			<i>for the GDP indicator, no new data sources are available at this time to improve and correct possible errors</i>

## 2.2 Contents published

The scope of revision changes of quarterly national accounts is performed in the tables of TP ESA2010 broken down by domains. These data are published in the STATdat and DATAcube databases on the SOSR website.

**Table 2 - Quarterly national accounts of TP ESA 2010 by domains**

Domain 1	TP ESA2010 Tables	Submission date of revised tables	Data Publication TP ESA2010
NA_MAIN (main aggregates)	1	May & October	web, STATdat & DATAcube database

**The public STATdat database** contains reports (tables) for indicators of economic and socio-economic development. Data from various statistical areas are available in monthly, quarterly or annual time series in territorial structures for the Slovak Republic, regions, counties and districts. Outputs from reports can be exported to data formats: XLSX (Excel 2007), XLS (Excel 97-2003), CSV, XML, or PDF.

Reports for the Indicators of Economic Development of the Slovak Republic contain a table of data, a filter for the selection of the year and notes. Reports for Predefined tables are extended by a button for entering the DATAcube database, where the user has the option to work with a multidimensional table and create their own selections.

**The public database DATAcube** contains data tables (cubes) for indicators of economic and socio-economic development. Data from different statistical domains are available in monthly, quarterly or annual time series and allow you to make your

<sup>1</sup> ESA2010 transmission tables classified by domains in the SDMX structure

own selections. The data are statistically processed in territorial structures for the Slovak Republic, regions, counties and districts. Where the data protection system allows, data are made available up to the level of municipalities. Outputs can be exported to formats: XLS (Excel 97-2003) or PDF.

The navigation system for classifying individual tables is based on compliance with the structure of areas, as well as on the statistical portal [www.statistics.sk](http://www.statistics.sk). The statistical data are regularly updated and follow the calendar of the first publication.

The database also includes selected predefined tables from European statistics (from the Eurostat database), which contain data for EU member states in the field of demography and social statistics, macroeconomic statistics, government finance and energy statistics.

Access to statistics is not conditional on registration. All data is available free of charge. The list of tables published in the database in the branch **Macroeconomic Statistics / National Accounts** is given in the following table.

**Table 3 – Published tables**

Table code	Table name
nu0001qs	Flash estimate of GDP and Total employment according to ESA 2010
nu0002qs	Quarterly GDP data at current prices
nu0003qs	Quarterly GDP data at constant prices on the base of previous year
nu0004qs	Quarterly GDP data at constant prices chain - linked volumes with reference year 2015
nu0005qs	Quarterly GDP data by industry at current prices
nu0006qs	Quarterly GDP data by industry at constant prices chain - linked volumes with reference year 2015
nu2002qs	Gross output by branches of NACE Rev. 2 at current prices
nu2008qs	Intermediate consumption by branches of NACE Rev. 2 at current prices [nu2008qs]
nu2010qs	Value added by branches of NACE Rev. 2 at current prices
nu2012qs	Gross fixed capital formation by branches of NACE Rev. 2 at current prices
nu2014qs	Gross fixed capital formation by classification of production at current prices
nu2016qs	Gross fixed capital formation by sectors at current prices
nu2020qs	Final consumption of households by Classification COICOP at current prices
nu2022qs	Final consumption of households by Classification COICOP at constant prices
nu2025qs	Generation and use of income in sector of households at current prices
nu2028qs	Gross Domestic Product per capita
nu2034qs	Gross Domestic Product recalculated per one working and calendar day
nu2039qs	General government revenues at current prices – quarterly data
nu2040qs	General government expenditure at current prices – quarterly data
nu2042qs	Total employment (ESA 2010) by branches of NACE Rev. 2
nu2043qs	Seasonally adjustment of GDP by expenditure components at current prices - quarterly data
nu2044qs	Seasonally adjustment of GDP by expenditure components at chain-linked volumes with reference year 2015 - quarterly data
nu2046qs	Compensation of employees (ESA 2010) by branches of NACE Rev. 2 at current prices
nu2047qs	Hours worked of employed persons (ESA 2010) by branches of NACE Rev. 2
nu2050qs	Employees (ESA 2010) by branches of NACE Rev. 2
nu2051qs	Seasonally adjustment of GDP resources at current prices - quarterly data
nu2052qs	Seasonally adjustment of GDP resources at chain-linked volumes with reference year 2015 - quarterly data
nu2054qs	Disposable income at current prices
nu2058qs	Export and import goods and services at current prices
nu2063qs	Generation and use of income in sector of households at current prices - quarterly data - seasonally adjusted

## **2.3 Special transmissions**

All compiled tables of the Transmission Program are sent to Eurostat via the eDamis system. The SOSR provides quarterly data to the National Bank of Slovakia (NBS), the Ministry of Finance of the Slovak Republic (MFSR) and Infostat before publication on the websites of the SOSR, but only after sending transmissions. This data is provided on the basis of a strict EMBARGO, through a secure transmission channel.

Tables include following data:

- data for the flash estimate of GDP and employment, as well as for the preliminary flash estimate, including seasonally adjusted data
- common published data (time series)
- revised national accounts data: seasonally unadjusted and seasonally adjusted revised quarterly data from the 1st quarter of 1995 to the revised quarter
- data on final consumption of households by data source (in million EUR, current prices)
- T1Q and T1A national accounts transmission tables.

## **2.4 Policy for metadata**

The publication of revised data is preceded by a notice of revision stating the date of publication of the revised data. The notice is published on the SOSR's website at least 2 days before the publication of the revised data. Information on current and annual revisions is also part of the methodological explanations of the relevant monthly, quarterly and annual publications and the relevant databases of the SOSR, as long as the revisions relate to data in the databases.

Revised data are usually supplemented with information on the reason, significance and evaluation of the revision, which is published on the portal at the time of publication of the revised data.

National accounts metadata can be found at the following link:

<https://bit.ly/3EUnvmZ>





## Chapter 3 – Overall QNA compilation approach

### 3.1 Overall compilation approach

Quarterly national accounts are compiled in accordance with the ESA 2010 methodology. The main objective of compiling quarterly national accounts is to estimate GDP. Within the GDP estimate, the individual components of GDP are also estimated. The quarterly estimate of GDP is based mainly on the production approach and the expenditure approach. The two approaches balance each other.

**Table 4 - Compilation of GDP by the production and expenditure approach**

	Row	Transaction code	Transaction
Production approach	1	P.1	Output
	2	P.2	Intermediate consumption
	3=1-2	B.1g	Gross value added
	4	D.21 – D.31	Net taxes on products
	<b>5=3+4</b>	<b>B.1*G</b>	<b>Gross domestic product</b>
Expenditure approach	6=7+8+9	P.3	Total final consumption
	7	P.3 (S.14)	Households
	8	P.3 (S.15)	Non-profit institutions serving households
	9	P.3 (S.13)	General government
	10=11+12	P.5	Gross capital formation
	11	P.51	Gross fixed capital formation
	12	P.52 + P.53	Changes in inventories and valuables
	13	P.6	Export of goods and services
	14	P.7	Import of goods and services
	15=13-14	B.11	Net balance of foreign trade
	16		Discrepancy
	<b>17=6+10+15+16</b>	<b>B.1*G</b>	<b>Gross domestic product</b>

#### 3.1.1 General architecture of the compilation of the QNA system

The compilation of quarterly national accounts takes place in the following steps:

1. taking over and processing of source data
2. inclusion of conceptual and completeness adjustments
3. compilation of GDP for the relevant quarter by sector and industry at current prices
4. conversion of individual components of GDP of the production and expenditure approach from current prices to previous year's prices with automatic conversion to constant prices calculated by chain-linking volumes, currently as of the reference year 2015

5. balancing GDP between the production and expenditure methods in order to achieve a balanced value of GDP at current prices
6. balancing GDP between the production and expenditure method in order to achieve a balanced value of GDP at previous year's prices
7. analysis of the results of the balance process in the time series taking into account the development of GDP and its components and possible correction of the results of the balance process
8. correction for seasonal variation adjustment of GDP for current and constant prices
9. compilation of a quarterly sector account for sector S.13 and S.2

### **Taking over and processing of source data**

Source data can be statistical or administrative. Some source data, mostly statistical, are available a few days before a "flash estimate" is made. In the case of a missing data source, mostly administrative data sources, estimates are made based on the sources available. At least one source is available for each institutional sector of the economy, with the exception of the household sector S.14, at the time of the "flash estimate". For sector S.14, no direct data information is available for the calculation of GDP from the production approach, therefore estimates are made on the basis of annual data using year-on-year indices for the sales of sole traders available on a monthly basis.

### **Inclusion of conceptual and completeness adjustments**

Conceptual and completeness adjustments enter into national accounts to ensure the transition from corporate accounting to the concept of national accounts according to the ESA 2010 methodology. In national accounts, the same adjustments are made in annual national accounts as in quarterly national accounts. The value of adjustments in quarterly national accounts is obtained directly based on source data or indirectly on the basis of data from the previous year using year-on-year development (quarter-on-quarter ROMR). An overview of the individual adjustments is given in the table below.

**Table 5 – Conceptual adjustments and completeness adjustments**

<b>Conceptual adjustments</b>	<b>Adjustment method</b>	<b>Adjustment sector</b>
Holding gains and losses	Direct	S.11, S.12, S.14
Subsidies on products	Direct	S.11, S.14
Production of housing services	Indirect	S.11
Fees for insurance services related to non-life insurance	Direct	S.11, S.12, S.13, S.14, S.15, S.2
Fixed assets include in intermediate consumption	Direct	S.11
Goods sent abroad for processing	Direct	S.11, S.14
FISIM and allocation of FISIM	Direct	S.11, S.12, S.13, S.14, S.15
Imputed rents	Indirect	S.14
Output of households as employers of domestic personnel	Indirect	S.14
<b>Completeness adjustments</b>		
N1 – Producer should have registered (underground producer)	Indirect	S.14
N2 – Illegal producer that fails to register	Indirect	S.14
N3 – Producer is not obliged to register	Indirect	S.14
N5 – Registered entrepreneurs not included in statistics	Indirect	S.14

N6 – Misreporting by the producer	Indirect	S.11, S.14
N7 – Statistical deficiencies in data	Indirect	S.11, S.14

Output and intermediate consumption data obtained from the statistical reports listed are adjusted by the calculated volume of **holding gains and losses** due to changes caused by price developments during the period considered.

**Subsidies on products** are considered to be payments provided by General Government (transfers) outside sector S.13. These are transfer payments to non-financial subjects – legal and natural persons (entrepreneurs), which were established for the purpose of making a profit and contributions to contributory organizations outside the general government sector.

The total value of **FISIM** produced by financial corporations S.12 is allocated to intermediate consumption of the respective institutional sectors. More information is in chapter 4.2.

During the transition from corporate accounting to the concept of national accounts, output and intermediate consumption in sector S.11 are adjusted for **output of housing services**. This is imputed output for dwellings owned by sector S.11.

The total **fees for non-life insurance services** are proportional to the amount of actual premiums paid by the institutions, plus the proceeds from the investment of insurance companies technical provisions after deduction of claims received. These fees are allocated into intermediate consumption and final consumption of sectors on the basis of the sectoral structure of non-life insurance written, which the Statistical Office of the Slovak Republic obtains from insurance companies.

According to the ESA 2010 methodology, the fixed assets included in **intermediate consumption**, ie. the inclusion in long-term intangible and tangible assets, has a usable life of more than one year, in contrast to current legal norms in the Slovak Republic, which set a limit of 1700 € and a usable life of more than one year and 2400 € for intangible assets and the same usable life of more than one year.

As the ESA 2010 methodology only sets a usable life for the intermediate consumption threshold, from a practical point of view it is difficult to determine from the value of some products whether it is a “screwdriver” (which should not be part of GFCF) or some other tool that should already be included in GFCF. We therefore chose the acquisition value of 100 € as the entry threshold for the reclassification of intermediate consumption products into GFCF. This means that products with a purchase value of less than 100 € are included in intermediate consumption.

Within **goods sent for processing abroad**, only the volume of sales for processing (or value added from processing) is included in output. The statistical survey provides information on whether the enterprise provided inward processing or processing under contract within its activities, as well as on the volumes of goods that underwent processing in the Slovak Republic, broken down according to the statistical classification of CPA products. The purpose is to obtain data on inward processing in accordance with customs regulations.

The completeness adjustments are divided into 7 categories: N1 - Producer should have registered (underground producer), N2 - Illegal producer that fails to register, N3 - Producer is not obliged to register, N4 - Registered units not covered by the statistical survey, N5 - Registered entrepreneurs not included in statistics, N6 - Misreporting by the producer and N7 - Statistical deficiencies in data.

Producer should have registered (underground producer) (N1) are mostly small producers whose turnover exceeds the limit set for registration. Registration is avoided in order to avoid paying taxes and social security contributions.

In the national accounts, 4 adjustments are made for the Illegal producer (N2), namely

- prostitution
- production and consumption of drugs
- smuggling of tobacco products
- alcohol smuggling

Producer is not obliged to register (N3) include two activities:

- own-account agricultural production
- own-account construction production

We do not make adjustments for units not included in statistical surveys, from the point of view of updating the statistical register (N4).

The category of registered units not subject to statistical survey (N5) represents an adjustment for those reporting agents that did not enter the survey, but entered the survey that is not primarily used by the Statistical Office.

The reason for the deliberate distortion of the reported data (N6) is to reduce the tax base and the basis for social security contributions as much as possible, while making an adjustment for undervalued production and overvalued intermediate consumption.

Other statistical incompleteness (N7) concerns income in kind, tips and increase of standing timber, by which national accounts are adjusted.

## **3.2 Balancing, benchmarking and other reconciliation procedures**

### **3.2.1 Quarterly GDP balancing procedure**

All three methods are used to calculate GDP. GDP is compiled independently by the production and expenditure approach, the income approach is the residual approach.

The production method is considered to be the most important in the quarterly national accounts in terms of source coverage and link to other statistics. It is based on the verification of the obtained and processed source data and the analysis of their changes in the time series.

Expenditure approach - the estimate of GDP by the expenditure approach is based on the verification of source data, analysis of changes in the time series and comparison of data.

The income approach of estimating GDP is not considered a separate approach in the quarterly national accounts of the Slovak Republic, as the operating surplus and mixed income are not estimated from independent sources. They are calculated as differences between value added and other income items of value added and change in accordance with the balance of production P.1 and / or intermediate consumption P.2.

Theoretically, three different approaches of calculating GDP should provide the same estimate (result). However, these methods are based on various surveys and administrative data sources, as well as estimates, and are therefore subject to errors and mistakes and in practice there are some discrepancies in the compilation of quarterly national accounts. Only the production and expenditure approach is used for balancing. The income method is not used for this purpose, because gross operating surplus as well as mixed income are differential indicators and their verification is not done from direct data sources.

In balancing, the difference between the production and expenditure approach of GDP is expressed separately as a statistical discrepancy. With a flash estimate and a improved estimate of GDP for Q3 2018, this discrepancy was still quantified separately.

**Table 6 - GDP and its components by quality levels for the 3rd quarter of 2018 at current prices**

Current prices	Row	Transaction	Flash estimate (flash)		Improved estimate		Revision by annual account + benchmark revision		Spring revision according to the annual account in 2020		Autumn revision according to the annual account in 2020		Spring revision according to the annual account in 2021	
			publication 14.11.2018		publication 7.12.2018		publication 28.10.2019		publication 30.4.2020		publication 30.10.2020		publication 30.4.2021	
			in mil. EUR	index	In mil. EUR	index	in mil. EUR	index	in mil. EUR	index	in mil. EUR	index	in mil. EUR	index
Production approach	1	Output	54 343	10,5	54 386	10,6	52 520	10,6	52 582	10,8	52 549	10,7	52 495	10,8
	2	Intermediate consumption	32 827	13,0	32 866	13,1	31 143	13,1	31 232	13,6	31 236	13,6	31 221	13,7
	3=1-2	Gross value added	21 516	6,9	21 520	6,9	21 377	7,1	21 350	7,0	21 313	6,8	21 273	6,6
	4	Net taxes on products	2 281	8,3	2 279	8,2	2 374	5,1	2 374	5,1	2 384	5,3	2 384	5,3
	5=3+4	<b>Gross domestic product</b>	<b>23 797</b>	<b>7,0</b>	<b>23 799</b>	<b>7,0</b>	<b>23 751</b>	<b>6,9</b>	<b>23 724</b>	<b>6,8</b>	<b>23 697</b>	<b>6,6</b>	<b>23 657</b>	<b>6,5</b>
Expenditure approach	6=7+8+9	Total final consumption	16 712	5,5	16 724	5,6	16 750	5,7	16 795	5,9	16 798	5,9	16 826	5,9
	7	Households	12 254	5,5	12 256	5,6	12 513	6,3	12 569	6,6	12 569	6,6	12 592	6,7
	8	Non-profit institutions serving households	221	3,3	224	4,5	200	4,3	190	-1,0	190	-1,0	190	-1,0
	9	General Government	4 238	5,4	4 245	5,6	4 036	3,9	4 036	3,9	4 039	3,9	4 044	3,8
	10=11+12	Gross capital formation	6 397	6,6	6 548	9,1	6 519	6,0	6 452	5,2	6 452	5,2	6 384	4,8
	11	Gross fixed capital formation	4 885	-6,0	5 036	-3,1	4 842	-5,9	4 766	-7,1	4 766	-7,1	4 751	-6,9
	12	Changes in inventories and valuables	1 511	x	1 511	x	1 677	x	1 686	x	1 686	x	1 633	x

13	Export of goods and services	21 463	8,2	21 314	7,5	20 951	7,9	20 952	8,1	20 926	8,0	20 925	8,0
14	Import of goods and services	21 106	8,5	20 970	7,8	20 469	6,6	20 474	6,9	20 479	6,9	20 479	6,9
15=13-14	Net balance of foreign trade	357	x	344	x	482	x	477	x	447	x	446	x
16	Discrepancy	330	x	183	x	0	x	0	x	0	x	0	x
<b>17=6+10+15+16</b>	<b>Gross domestic product</b>	<b>23 797</b>	<b>7,0</b>	<b>23 799</b>	<b>7,0</b>	<b>23 751</b>	<b>6,9</b>	<b>23 724</b>	<b>6,8</b>	<b>23 697</b>	<b>6,6</b>	<b>23 657</b>	<b>6,5</b>

**Explanatory Notes:** year-on-year development, growth or decrease compared to 3.q.2017

**Notes:** possible deviations in aggregates were caused by rounding the data to mil. EUR; GDP is balanced at the level of thous. EUR

**Table 7 - GDP and its components by quality levels for the 3rd quarter of 2018 at constant prices of the previous year in mil.EUR**

Constant prices PPY	Row	Transaction	Flash estimate (flash)	Improved estimate	Revision by annual account + benchmark revision	Spring revision according to the annual account in 2020	Autumn revision according to the annual account in 2020	Spring revision according to the annual account in 2021
			publication 14.11.2018	publication 7.12.2018	publication 28.10.2019	publication 30.4.2020	publication 30.10.2020	publication 30.4.2021
			in mil. EUR	in mil. EUR	in mil. EUR	in mil. EUR	in mil. EUR	in mil. EUR
Production approach	1	Output	52 820	52 861	51 047	51 107	51 075	51 023
	2	Intermediate consumption	31 846	31 884	30 213	30 299	30 303	30 289
	2-1=3	Gross value added	20 973	20 977	20 834	20 808	20 772	20 734
	4	Net taxes on products	2 223	2 221	2 254	2 254	2 263	2 263
	<b>5=3+4</b>	<b>Gross domestic products</b>	<b>23 196</b>	<b>23 199</b>	<b>23 088</b>	<b>23 062</b>	<b>23 035</b>	<b>22 997</b>
Expenditure approach	6=7+8+9	Total final consumption	16 230	16 240	16 266	16 312	16 314	16 342
	7	Households	11 955	11 957	12 206	12 261	12 261	12 284
	8	Non-profit institutions serving households	212	215	193	183	183	183
	9	General Government	4 062	4 068	3 868	3 868	3 870	3 875
	10=11+12	Gross capital formation	6 260	6 406	6 298	6 231	6 231	6 165
	11	Gross fixed capital formation	4 766	4 912	4 724	4 649	4 649	4 626
	12	Changes in inventories and valuables	1 494	1 494	1 574	1 582	1 582	1 539
	13	Export of goods and services	21 043	20 896	20 538	20 539	20 514	20 513
	14	Import of goods and services	20 635	20 502	20 014	20 019	20 024	20 024
	15=13-14	Net balance of foreign trade	408	394	524	519	490	489
	16	Discrepancy	299	159	0	0	0	0
	<b>17=6+10+15+16</b>	<b>Gross domestic product</b>	<b>23 196</b>	<b>23 199</b>	<b>23 088</b>	<b>23 062</b>	<b>23 035</b>	<b>22 997</b>

**Notes:** possible deviations in aggregates were caused by rounding the data to mil. EUR; GDP is balanced at the level of thous. EUR

**Table 8 - GDP and its components by quality levels for the 3rd quarter of 2018 at chain-linked volumes**

Constant prices CHAIN	Row	Transaction	Flash estimate (flash)		Improved estimate		Revision by annual account + benchmark revision		Spring revision according to the annual account in 2020		Autumn revision according to the annual account in 2020		Spring revision according to the annual account in 2021	
			publication 14.11.2018		publication 7.12.2018		publication 28.10.2019		publication 30.4.2020		publication 30.10.2020		publication 30.4.2021	
			in mil. EUR, 2010=1 00	index	in mil. EUR, 2010=1 00	index	in mil. EUR, 2015=1 00	index	in mil. EUR, 2015=1 00	index	in mil. EUR, 2015=1 00	index	in mil. EUR, 2015=1 00	index
Production approach	1	Output	51 541	7,6	51 581	7,7	50 840	7,7	50 899	7,9	50 869	7,9	50 816	7,9
	2	Intermediate consumption	31 326	9,9	31 362	10,0	30 147	10,0	30 233	10,5	30 237	10,5	30 223	10,6
	3=1-2	Gross value added	20 197	4,5	20 201	4,5	20 688	4,7	20 662	4,5	20 628	4,4	20 590	4,2
	4	Net taxes on products	2 127	5,8	2 125	5,8	2 239	3,5	2 239	3,5	2 248	3,7	2 248	3,7
	<b>5=3+4</b>	<b>Gross domestic product</b>	<b>22 323</b>	<b>4,6</b>	<b>22 325</b>	<b>4,6</b>	<b>22 927</b>	<b>4,6</b>	<b>22 901</b>	<b>4,4</b>	<b>22 876</b>	<b>4,3</b>	<b>22 838</b>	<b>4,2</b>
Expenditure approach	6=7+8+9	Total final consumption	14 734	2,6	14 743	2,7	15 956	2,8	16 000	3,0	16 004	3,0	16 031	3,0
	7	Households	10 885	3,1	10 887	3,2	12 081	3,8	12 136	4,2	12 136	4,2	12 158	4,2
	8	Non-profit institutions serving households	195	-0,4	197	0,9	185	0,6	176	-4,5	176	-4,5	176	-4,5
	9	General Government	3 663	1,4	3 668	1,6	3 699	0,0	3 699	0,0	3 703	0,0	3 707	-0,2
	10=11+12	Gross capital formation	6 151	3,8	6 295	6,3	6 264	3,3	6 198	2,6	6 198	2,6	6 133	2,2
	11	Gross fixed capital formation	4 681	-8,5	4 824	-5,7	4 686	-8,3	4 611	-9,4	4 611	-9,4	4 589	-9,5
	12	Changes in inventories and valuables	x	x	x	x	x	x	x	x	x	x	x	x
	13	Export of goods and services	21 209	6,4	21 062	5,6	20 392	6,0	20 393	6,2	20 368	6,1	20 367	6,1
	14	Import of goods and services	19 955	6,1	19 827	5,4	19 685	4,2	19 690	4,5	19 694	4,5	19 694	4,5
	15=13-14	Net balance of foreign trade	x	x	x	x	x	x	x	x	x	x	x	x
	16	Discrepancy	x	x	x	x	x	x	x	x	x	x	x	x
<b>17=6+10+15+16</b>	<b>Gross domestic product</b>	<b>22 323</b>	<b>4,6</b>	<b>22 325</b>	<b>4,6</b>	<b>22 927</b>	<b>4,6</b>	<b>22 901</b>	<b>4,4</b>	<b>22 876</b>	<b>4,3</b>	<b>22 838</b>	<b>4,2</b>	

**Explanatory Notes:** index = year-on-year development, growth or decrease compared to 3.q.2017

### 3.2.2 Benchmarking of quarterly national accounts and annual national accounts

Benchmarking in quarterly national accounts takes place at a detailed level twice a year. This means that the quarterly national accounts are always tuned to annual national accounts after the annual transmission has been sent.

Quarterly national accounts are tuned to annual national accounts mainly using ratios, where annual values are broken down into quarters using ratios of source data from quarterly national accounts.



The first version of the annual national account, which is sent in the March transmission, is actually the sum of the quarterly data. These accounts are then revised using the available annual resources.

The seasonally and calendar adjusted quarterly NA data are benchmarked against calendar adjusted annual series and the only seasonally adjusted quarterly data are benchmarked against unadjusted (original) annual series. The benchmarking procedure implemented directly in software tool JDemetra+ is used.

### 3.2.3 Other reconciliation(s) of QNA different from balancing and benchmarking

These procedures ensuring the verification of GDP are actually used directly in the implementation of the balance sheet, in the verification of data of individual indicators:

- comparison of data obtained from annual statistical reports with data from statistical reports required for the compilation of quarterly accounts of selected indicators of the production and expenditure approach (output, intermediate consumption, GFCF, wages),
- verification through the development of constant prices,
- comparison with employment data,
- assessment of significant changes, events occurring during the year in the economy and their impact,
- comparison with foreign trade data,
- controls using labor productivity and other relative indicators: the share of their values in individual commodities or columns,
- an important tool for verifying the estimation of indicators of the production and expenditure approach of GDP and employment is the Working group for flash estimation of GDP, created by our Directorate in cooperation with the institutions of the Ministry of Finance, NBS, Council for Budget Responsibility and Infostat. Before each publication of the flash estimate of GDP, a working group will meet on the premises of the Slovak Statistical Office, while each institution will discuss its own independent GDP estimates.

### 3.2.4 The amount of estimates in various releases

The amount of estimates may vary in the process of compiling GDP, mainly due to the availability of data. Not all data sources are available with a flash estimate of GDP in T + 45. The availability of information is better with each subsequent revision.

The estimate of GDP by the production approach at the time of the first revision is marked by the unavailability of data at the level of 18%. This percentage of the estimate is mainly due to the absence of data for the household sector.

In the case of the expenditure approach, the non-coverage rate is 26%. This percentage of the estimate is mainly due to the absence of data on household final consumption.

Subsequent revisions of quarterly data depend on the compilation of annual national accounts, which are more covered by data sources.

### **3.3 Volume estimates**

#### 3.3.1 General volume policy

The chosen methodology of conversion into constant prices calculated by chaining is the Annual Overlap. The methodology is recommended by Eurostat.

#### 3.3.2 Chain-linking and benchmarking

The methodology for converting quarterly national accounts data from current prices to chain-linked volumes has been harmonized with the procedure used in annual national accounts: the indicators are first converted to average prices for the previous year. The indicators thus obtained are converted into the average prices of the previous year and then, by means of annual average price indices, are chained to the prices in the base year. The base year usually changes every five years and currently the base year is 2015. Due to the use of this chaining method, the aggregates are not additive to their aggregate chain values. This means that the values of aggregates in 2015 prices do not fit with the sum of amounts of individual components. This is because each time series is chained separately.

#### 3.3.3 Chain-linking and seasonal adjustments

Seasonal adjustments of chain-linked QNA data follow the recommendations of the CMFB Task Force on seasonal adjustment of QNA held in 2007. Seasonally (and calendar) adjusted chain-linked QNA volume measures are generally obtained by direct adjusting the chain-linked series, followed by a benchmarking of the adjusted chain-linked series. The reference data for benchmarking are the independently derived chain-linked annual series in unadjusted form for only seasonally adjusted QNA data, and in calendar adjusted form for seasonally and calendar adjusted QNA data.

Chain-linked volume measures in unadjusted and adjusted form are not additive. No correction is made to remove the non-additivity introduced by chain-linking. All chain-linked QNA volumes are adjusted directly except some component series of GDP from the expenditure side. These components are adjusted indirectly by aggregating the adjusted component data in average prices of the previous year and chain-linking the result. The seasonally adjusted data in average prices of the previous year are derived by unchaining the benchmarked adjusted chain-linked volume series. Discrepancies between the directly adjusted total GDP and the aggregate of its seasonally adjusted components expressed in the previous year's prices are equal to zero because the total gross capital formation series is derived indirectly and thus the series of discrepancies is allocated there. It follows that the non-additivity between the adjusted GDP and its expenditure components expressed in chain-linked volumes is introduced only by chain-linking and not by seasonal adjustment.

### **3.4 Seasonal and calendar adjustment**

All variables of QNA main aggregates are provided in non-seasonally adjusted form as well as in seasonally adjusted form (including calendar adjustments, where relevant) to be in line with the ESA 2010 transmission programme. Provision of seasonally adjusted data includes the time series in current prices and chain-linked volumes while the adjusted quarterly data in the previous year's prices are not provided. Generally the seasonal adjustment practices of SO SR follow the recommendations from ESS guidelines on seasonal adjustment.

#### **3.4.1 Policy for seasonal adjustment**

No seasonally and calendar adjusted data indicators are directly used in compiling seasonally and calendar adjusted QNA variables. After the compilation of QNA variables they are seasonally and calendar adjusted using TRAMO-SEATS method implemented in the software tool JDemetra+ version 2.2.3. Each quarterly time series was examined separately by running a detailed pre-treatment based on RegARIMA models using statistical criteria complemented by the use of economic and calendar information.

For almost all of the time series logarithm transformation is applied (multiplicative decomposition). All the series are tested on the presence of outliers (mostly three types are chosen – additive outlier, transitory change, level shift) and if the outlier is statistically significant and economically plausible it is fixed and introduced into model. For a given variable in current prices and chain-linked volumes the models with the same ARIMA parameters are preferred so as to minimize the volatility of adjusted deflator derived indirectly.

Because of users' needs for temporal consistency the adjusted quarterly data are benchmarked to fit the unadjusted annual data (sum or average). The seasonally and calendar adjusted quarterly data are constrained to the calendar adjusted data over the year and the only seasonally adjusted quarterly data are constrained to unadjusted data over the year. The benchmarking procedure implemented directly in JDemetra+ is used. The additivity of seasonally adjusted set of QNA series in current prices is ensured by applying the indirect approach on the aggregate series or alternatively by using direct approach for all series and distributing the discrepancies among one or more component series. For some set of time series (e.g. components of GDP from the production and income side) the discrepancies are quantified as a separate time series. Preferably the key aggregates (e.g. GDP and total employment) and the main components are adjusted directly. The indirect method of seasonal adjustment for chain-linked volumes is described in section 3.3.3.

#### **3.4.2 Policy for calendar adjustment**

Calendar adjustment is performed within pre-treatment of time series using RegARIMA approach, with all pre-tests for number of regressors (working/trading days), leap year effect and moving holiday effects (Easter). The adjustment for calendar effects is done only for those QNA time series for which there is an economic rationale for the existence of calendar effects and these are statistically significant and plausible. For

this reason, some QNA variables are not calendar adjusted at all, e.g. employment measured in persons. Seasonally and calendar adjusted quarterly data are benchmarked to match the calendar adjusted annual data.

Actually working or trading days adjustment (including leap year effect where significant) is applied only for variables of final consumption expenditure, exports, imports and employment in hours worked. Other variables (including GDP) were tested with no significant calendar effects and thus they remain to be only seasonally adjusted. No variable is adjusted for Easter effects because of its low significance. For proper estimation of trading / working days regressors the national calendar is applied taking into account specific public holidays for Slovakia.

### 3.4.3 Revision policy for seasonally adjusted data

According to the revision policy for seasonally adjusted data the partial concurrent adjustment is applied to take into account the new information and to minimize the size of revisions due to the seasonal adjustment process. The model, filters, outliers and calendar regressors are re-identified only once a year (usually after the main annual revision of quarterly NA data) while the respective parameters and factors are re-estimated every time the figures for new quarter are added. No limitation for the revision period of the seasonally adjusted data are set up, i.e. the whole time series are revised every time the seasonal adjustment is launched. The special attention is paid to the treatment of values at the end of a time series, especially in times of strong economic changes and crisis. These values are modelled as outliers according to the information based on statistical criteria and economic plausibility. At first the outlier at the end of the series is treated as additive and later, when additional observations are available, it may be changed either to a level shift or a transitory change.



## Chapter 4 – Estimation of GDP and its components in the production approach

### 4.1 Gross value added, including sectoral breakdown

Gross value added is calculated as output less intermediate consumption. The estimation of gross value added is made separately for each institutional sector, broken down into 88 branches of SK NACE. The breakdown of A\*88 is also used to revalue the indicators to constant prices. The price indices are supplied by Department of Price Statistics. These prices are used to direct revaluation of production to the prices of the previous year. The results are the volumes and indices created by the chaining process.

**Table 9 – Gross value added by industries and GDP in current prices**

in. Mill. €

SK NACE	1. Q.	2. Q.	3. Q.	4. Q.	2018
Agriculture, forestry and fishing (A)	375.75	488.72	857.10	403.00	2 124.57
Manufacturing (B - E)	4964.764	4 304.31	4 642.35	5 866.79	19 778.21
Construction (F)	732.091	1375.848	2172.392	2070.094	6 350.43
Wholesale; retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation; food service activities (G - I)	3418.089	4040.671	4136.334	3054.702	14 649.80
Information and communication (J)	926.81	960.00	850.15	968.20	3 705.16
Financial and insurance activities (K)	631.12	789.15	650.20	463.07	2 533.53
Real estate activities (L)	1 763.83	2 185.94	2 149.67	2 154.67	8 254.10
Professional, scientific and technical activities; administrative and support service activities (M - N)	1986.959	2311.455	2018.035	1771.668	8 088.12
Public administration and defence; compulsory social security; education; human health and social work activities (O - Q)	2716.106	2950.284	3089.883	3055.51	11 811.78
Arts, entertainment and recreation, repair of household goods and other services (R - U)	679.161	648.069	707.367	737.815	2 772.41
<b>All industries</b>	<b>18 194.68</b>	<b>20 054.44</b>	<b>21 273.48</b>	<b>20 545.52</b>	<b>80 068.11</b>
Net taxes on products	2038.431	2392.274	2383.508	2474.364	9 288.58
<b>Gross domestic product</b>	<b>20 233.11</b>	<b>22 446.71</b>	<b>23 656.99</b>	<b>23 019.88</b>	<b>89 356.69</b>

#### Agriculture, forestry and fishing (NACE A)

NACE A consists of divisions 01 Crop and animal production, hunting and related service activities, 02 Forestry and lodging and 03 Fishing and aquaculture.

The set of units contains all establishment units, subsidised organisations and school economies in the sector of general government as well as the private self-employed farmers and small growers and breeders not registered in the business register, which carry out activities belonging to this section.

The gross value added of the division 01 represents the sum of agricultural activities and the inseparable non-agricultural activities (secondary production). It is mainly the production of plant products and the production of animal products. In addition, hunting also falls into this category.

The secondary production represents the processing of own agricultural products, agro-tourism, sports and rural tourism, services performed within the maintenance and preserving of the country and other activities.

The gross value added in the division 02 represents the amount of timber harvesting within the revenues from sales of own goods. In addition, it is the production for own final use, e.g. fire wood, wooden fences against game, seeds of forest plants, seeds for the forest recovery etc.

The output of the division 03 is represented by the products belonging under CPA 03.00 Fish and other fishery products.

Due to the fact that national accounts are compiled on the basis of survey data according to the predominant activity, duplicate values of output and intermediate consumption are excluded.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, holding gain and losses, allocation of FISIM and allocation of fees for insurance services.

From exhaustiveness adjustments the most important are N3 (own-account agricultural production) and N6.

### **Mining and quarrying; Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities (NACE B to E)**

Section B covers all establishment units of S.11, which are dealing with the mining of minerals, existing in the nature as solid substances (coal and ore), liquids (oil), or gases (natural gas). Their activity is done by mining or quarrying by the means of drilling. This section covers also those units, which are dealing with additional operations intended for the preparation of raw materials for the market. If the division 08 is concerned, the activities related to the decoration and construction stone and operation of gravel and sand pits are performed also by units belonging to the S.14 sector.

The section C covers all establishment units of the sector of non-financial corporations, which are part of manufacturing. This section includes also subsidised and budgetary organisations and units controlled by municipalities belonging into the sector of general government (production and distribution of scientific publications, etc.).

Section D covers units, which are dealing with the production and distribution of electricity, gas and water.

Section E covers all units, whose main activity is the water supply, sewerage, and waste management. This section covers also subsidised and budgetary organisations and units controlled by municipalities from the sector of general government (public service enterprises and technical services of cities involved in the production in these sectors). The register records in this category also units not registered in business register dealing with the activities of water supply, sewerage and waste management of the sector of households.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, holding gain and losses, allocation of FISIM and allocation of fees for insurance services, capitalisation of R&D and capitalisation of software.

From exhaustiveness adjustments the most important is N6.

### **Construction (NACE F)**

In the sector of non-financial corporations, the enterprises dealing with the building of houses, highways and network engineering prevail. The subsidised organisations with construction as the main activity, or the municipal firms and facilities of the corresponding code of activity are classified into the sector of general government and firms not registered in the business register with the construction output are included into the sector of households. The information on the construction of new residential and non-residential buildings, as well as on engineering networks and repairs, reconstructions or modernisation of apartments is available from the statistical survey. The entity which carries out the construction work abroad for the time period being less than one year is considered as resident and thus its output is considered as national.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods and holding gain and losses.

From exhaustiveness adjustments the most important are N3 (own-account construction production) and N6.

Wholesale and retail trade, Repair of motor vehicles and motorcycles; Transportation and storage, Accommodation and food service activities (NACE G to I).

Section G is specific by a huge number of units, which are classified in register into the non-financial sector, sector of general government and the sector of households. In



the sector of non-financial corporations, the industry 45 covers sellers of cars of various marks. The industry 46 consists of units providing wholesale activity prevailingly falling into the size category of 0-19 employees. The industry 47 keeps the units with retail trade activities, while mainly the retail chains are in question, supermarkets, retail shops, pharmacies, petrol stations, consignments, internet sales, good automats etc.

The section H Transportation and storage covers establishment units belonging into S.11, the main activity of which is related to transport and related activities. The highest number of units is represented by road transporters of goods. However, the registers include also dispatch firms, telecommunication operators, post, air companies, shipping companies and bigger travel agencies. The budgetary organisations from sector S.13, which are dealing with the construction and administration of infrastructure, belong here too. The road transporters belong to the sector of households and are classified under the legal form 101 physical person – entrepreneur.

The section I covers those reporting units from the sector of non-financial corporations, which are dealing with the operation of hotels, restaurants, catering and dining halls for students. The majority of units belong into the category of 0-19 employees. In the sector of households, prevailingly the units merged under the legal form 101 physical person – entrepreneur. In sector S.13, the budgetary organisations, subsidised organisations running special facilities of particular institutions classified in the sector S.13 are in question.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, allocation of FISIM, allocation of fees for insurance services and sales from operational leasing.

From exhaustiveness adjustments the most important are N6 and N7, specifically tips.

## **Information and communication (NACE J)**

Section J Information and communication covers establishment units for sector S.11, main activity of which is related to the above mentioned services. For the sector S.13, the register contains mainly budgetary organisations, the main activity of which is related to information, communication and mass media services. In the sector of households, majority of units under the legal form 101 physical person – entrepreneur.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods and capitalisation of RD, software and originals.

From exhaustiveness adjustments the most important are N6.

### **Financial and insurance activities (NACE K)**

Section K consists of branches 64 Financial service activities, except insurance and pension funding, 65 Insurance, reinsurance and pension funding, except compulsory social security and 66 Activities auxiliary to financial services and insurance activities.

Section K covers units belonging to the sector of financial corporations. In the sector of households, majority of units under the legal form 101 physical person – entrepreneur.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, FISIM and its allocation and allocation of fees for insurance services.

From exhaustiveness adjustments the most important are N5 in S.14 and N7.

### **Real estate activities (NACE L)**

Section L Real estate activities covers the establishment units from S.11, the main activity of which is related to the above mentioned services, e.g. construction co-operatives and housing management facilities. For the sector of general government, the subsidised and budgetary organisations and units controlled by municipalities belong here (units under the competence of which is the management of facilities belonging to S.13, technical services enterprises of the local municipality etc.). The sector S.15 is represented by houses owner's communities.

Calculation of total production of dwelling services is based on combination of stratification and user cost method. The stratification method is applied only to flats (rented and occupied by owners) in S.14 and also to rented flats in S11 and 12 sectors, as the market rentals are representative only for these types of dwellings. For other types of dwellings than the flats in S.11, S.12 and S.14, the UCM (Unit cost method) has been applied.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, allocation of FISIM and housing services.

From exhaustiveness adjustments the most important are N5 and N6.

### **Professional, scientific and technical activities; Administrative and support service activities (NACE M and N)**

Section M covers the units belonging into the sector of non-financial corporations, the main activity of which is related to the services within section M. A significant part of output in the sector of general government is generated by the testing institutes and other professional controlling and testing bodies belonging to S.13. The sector of households covers the units under the physical person and freelancers.

Section N covers reporting units belonging into the sector of non-financial corporations, sector of general government and the sector of households the main activity of which is related to the services related to section N. For sector S.13, mainly the subsidised organisations being controlled by the municipality are covered by the register. The sector of households covers the units under the legal form 101-physical person.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, allocation of FISIM, holding gains and losses and capitalisation of RD.

From exhaustiveness adjustments the most important is N6.

### **Public administration and defence; Education; Human health and social work activities (NACE O to Q)**

Section O covers reporting units belonging mainly into the sector of general government S.13 and partially also units belonging to sector S.12 in the scope of the obligatory social security system. For sector S.13, the non-market producers, budgetary and subsidised organisations are in question. This section contains all units implementing public administration activities performed by public units. This includes activities such as drafting laws and legal frameworks, legislative activities, taxation, security, defense, immigration, foreign relations and the implementation of government programs in various fields. This section also contains social security funds and their management.

The section P is represented prevalingly by the sector of general government S.13, where among subsidised and budgetary organisations all types of kindergartens and elementary schools, some secondary schools, universities and other types of education are registered. In the sector of non-financial corporations mainly the

vocational centres, operated by big enterprises, are classified; among the smaller units belong driving schools and some language schools or other types of educational facilities. Part of private and church schools is classified in the sector S.15; in the sector of households, the remaining part of private schools, together with firms with various forms of education, is classified.

The health industry (section Q) covers the majority of reporting units which are classified in the sector of general government. Public hospitals are classified in the sector of general government has taken place. The private health-care facilities, medical institutions, specialised institutions are classified in S.11. The social-work houses, orphanages, youth centres and belong to S.13 as they are budgetary organisations. The entities providing health-care and social services under the legal form 105 freelancer - physical person undertaking based on the Law other than the Law on sole traders are classified into the sector of households. The sector NPISH covers private health facilities registered as non-profit institutions, medical institutions, specialised institutions, hospices, consultancy centres in the health industry etc.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are allocation of FISIM, allocation of fees for insurance services and capitalisation of RD.

From exhaustiveness adjustments the most important are N5 and N6.

### **Arts, entertainment and recreation; Other service activities; Activities of households as employers; Activities of extraterritorial organisations (NACE R to U)**

The section R covers establishment units belonging into the sector of non-financial corporations, the main activity of which is related to the above mentioned services. The big number of units are classified in the branch 93 Sport activities and amusement and recreation activities mainly in the size category of enterprises up to 19 employees. The sector S.13 covers urban libraries, cultural centres, museums and theatres. Many entities operating under the legal form 101 physical person – entrepreneurs are classified in the sector of households. The sector NPISH covers various sport clubs, foundations and civic associations.

The section S covers all units of S.11 and S.13, the main activity of which is related to the services within this section. The financial corporations sector is represented in this section by non-profit institutions serving financial corporations. Many entities operating under the legal form 101 physical person – entrepreneurs are classified in the sector of households. The highest number of units belongs to sector NPISH, where all political parties, profession chambers and church communities are registered.

Section T The activities of households as employers are recorded only in sector S.14 from the point of view of the national accounts of the Slovak Republic. There is no direct source for estimating household activities as employers, so it is estimated and covered by conceptual adjustment.

The main data sources for compilation of gross value added are statistical surveys and administrative data sources. S.14 used YoY indices from the monthly statistics on self-employed sales and the development of value added for small enterprises is also taken into account.

These data are adjusted by conceptual adjustments and adjustments on exhaustiveness. From conceptual adjustments the most important within these industries are cost on sold goods, allocation of FISIM, allocation of fees for insurance services.

From exhaustiveness adjustments the most important are N5, N6 and N7.

## 4.2 FISIM

The total value of FISIM is equal to the amount of FISIM on deposits and FISIM on loans calculated for all institutional sectors that consume the services of financial intermediaries producing FISIM. Subsector S.122 and subsector S.125 are considered to be the creators of FISIM.

FISIM is allocated to users as a cost. This means that part of the interest payments to financial intermediaries must be reclassified as payments for services and allocated to financial intermediaries as output. The corresponding value is recorded as user consumption. The value of GDP is affected by the part of FISIM allocated to final consumption, exports and imports.

### Calculation of FISIM allocated to P.11, P.2 and P.31

FISIM in subsectors S.122 and S.125 is calculated separately for each user sector, with the same reference rate value for both subsectors being entered in the calculation algorithm. The internal reference interest rate is calculated as the ratio of interest received on loans plus interest on deposits within and between subsectors S.122 and S.125 and the stock of loans within and between subsectors S.122 and S.125.

$$\text{FISIM} = \text{FISIM(L)} + \text{FISIM(D)}$$

$$\text{FISIM(L)} = \text{Ri(L)} - \text{L} * \text{Ri}$$

$$\text{FISIM(D)} = \text{D} * \text{Ri} - \text{Ri(D)},$$

Kde

$$\text{FISIM} = \text{total FISIM for S.122+S.125}$$

$$\text{FISIM(L)} = \text{FISIM from loans,}$$

$$\text{FISIM(D)} = \text{FISIM from deposits.}$$

Ri = internal reference interest rate within subsectors S.122 and S.125

L = average annual value of loans granted

D = average annual value of deposits received

Ri (L) = actual interest earned on loans

Ri (D) = actual interest paid on deposits

## Calculation of FISIM allocated to P.62 and P.72

Imports of FISIM services are calculated as the sum of imported FISIM services from loans granted (loans taken out by residents abroad) and the sum of imported FISIM services from deposits (deposits made by residents abroad).

Exports of FISIM services are calculated as the amount of FISIM on loans granted to non-resident units and FISIM on deposits received from non-resident units.

The algorithm for calculating FISIM imports is identical to the export of FISIM services.

The external reference interest rate (used in the calculation of exports and imports of FISIM services) is calculated as the ratio of interest received on loans plus interest on deposits between resident and non-resident financial institutions and stocks of loans plus stocks of deposits between resident and non-resident financial institutions.

Export FISIM = Export FISIM (L) + Export FISIM (D)

Export FISIM (L) =  $Re(L) - L * Re$

Export FISIM (D) =  $D * Re - Re(D)$ ,

where

FISIM exports = total exports of FISIM services for S.122 + S.125

FISIM exports (L) = exports of FISIM services from loans

FISIM exports (D) = exports of FISIM services from deposits

R (e) = external reference interest rate within subsectors S.122 and S.125

L = average annual value of loans granted to non-resident units

D = average annual value of deposits received from non-resident units

Re (L) = actual interest earned on loans

Re (D) = actual interest paid on deposits

## Data sources

Data from NBS as a main administrative data sources are used to calculate FISIM for subsectors S.122 and S.125. These are stocks of loans and deposits broken down by institutional sector (statements V 5-12 and V 33-12) and the related interest income and expense. Interest on deposits and loans for subsector S.122 is available directly from the administrative resource of the NBS (statement V 13-04), broken down by all institutional sectors. Interest information in subsector S125 is drawn from the quarterly statistical survey (report Pin 3-04). Information on loan balances in S125 is drawn from the NBS quarterly report M 81-04.

**Table 10 – FISIM allocation in subsectors S.122 and S.125 together on the debit side**

In mill. €	Uses						
	S.1+S.2	S.11	S.12	S.13	S.14	S.15	S.2
Export	21	0	0	0	0	0	21
Import	0	0	0	0	0	0	0
Output, FISIM in S.12	0	0	0	0	0	0	0
Intermediate consumption	178	125	11	28	8	6	0
Final consumption of households	267	0	0	0	267	0	0

**Table 11 - FISIM allocation in subsectors S.122 and S.125 together on the credit side**

In mill. €	Resources						
	S.1+S.2	S.11	S.12	S.13	S.14	S.15	S.2
Export	0	0	0	0	0	0	0
Import	44	0	0	0	0	0	44
Output, FISIM in S.12	422	0	422	0	0	0	0
Intermediate consumption	0	0	0	0	0	0	0
Final consumption of households	0	0	0	0	0	0	0

### 4.3 Taxes less subsidies on products

Taxes less subsidies on products (i.e. net taxes on products) are calculated as taxes on products (D.21rec) less subsidies on products (D.31pay).

Net taxes on products = D.21 - D.31

Taxes on products are the sum of taxes such as value added tax (VAT, D.211rec), import taxes and import duties other than VAT and taxes on products other than VAT and import taxes (D.214).

$D.21 = D.211 + D.212 + D.214$

Taxes on products (D.21) are taxes that are paid per unit of a given product or service that are produced or that are the subject of transactions. The tax may be a specific monetary amount per unit of quantity of a product or service or it may be calculated as a specific percentage of the unit price or value of the goods and services that are produced or the subject of the transactions. Taxes levied on a product, regardless of which institutional unit pays the tax, are included in taxes on products, unless they are explicitly included in another item.

Value added tax (VAT, D.211) is a tax on goods and services, which is collected gradually by enterprises and which is ultimately charged in full to the final purchaser.

This item includes value added tax, which is collected from domestic and imported products by the General Government, as well as other deductible taxes, unless they are subject to similar rules as VAT. All taxes of the type of value added tax are hereinafter referred to as "VAT". The similarity of VAT is, that producers are obliged to pay to the General Government only the difference between VAT on their sales and VAT on their purchases for intermediate consumption and gross fixed capital formation.

Import taxes and import duties other than VAT (D.212) include compulsory payments levied by the General Government or the institutions of the European Union on imported products, excluding VAT, with the aim of releasing them for free circulation in the economic territory, as well as on services, which are provided to resident units by non-resident units.

Taxes on products other than VAT and import taxes (D.214) consist of taxes on products and services that are paid in the result of the output, export, sale, transfer,

leasing or supply of these products or services or in the result of their use for own consumption or own capital formation.

Subsidies on products (D.31) are subsidies provided per unit of a product or service produced or imported. Subsidies on products represent green energy.

### **Data sources**

The data source for D.211 is the accrued value of VAT provided by the Financial Policy Institute (FPI), which is calculated by time-adjusted cash method.

The administrative source of data for D.212 and D.214 is the Fin 1-12 statement, which contains the revenues (and expenditures) of General Government subjects. The calculated value of D.214 from this resource is complemented by the accrued value of consumption tax from FPI, which is calculated by time-adjusted cash method.

The value of D.31 at the quarterly level is estimated on the basis of development and on the basis of previous time series, while after obtaining the annual data, the amounts for the quarters are specified by the structure.



## **Chapter 5 - Estimation of GDP and its components in the expenditure method**

### **5.1 Household final consumption**

The methodological approach on the compilation of final consumption of households („hereinafter FCH“) can be defined as bottom-up, where firstly the estimate for individual groups of expenditures by COICOP classification is made and then by summing them up, the main aggregated value for FCH is calculated.

When estimating the particular items, several data sources are used which are mutually combined and completed. The main data source for the calculation of FCH is the statistics of retail trade sales available at monthly basis.

The following data sources belong among other statistical sources related to the retail trade surveys: monthly questionnaire on transport, monthly questionnaire in telecommunication, monthly questionnaire on selected retail trade services, data from price statistics etc.

The information from NBS, individual ministries and/or police are used as administrative data sources. The calculation algorithm for FCH works also with data from HBS, mainly using the year-on-year indices.

The main data source for the retail-trade sales is the statistical survey OPU 1-12- the monthly questionnaire on trade, catering and accommodation. Data are reported at 3-digit level of SK NACE Rev. 2. and consequently grossed-up for the total population of economically active units and data.

When calculating the FCH, it is necessary to deduct from the value of retail trade sales allocated to the COICOP groups that part of services, which does not represent the purchases of households. Thus, the sales are adjusted by purchases realised by business entities, which represent their intermediate consumption or the GFCF.

Administrative data sources represent mainly the data from the MOF SR (information on lottery wins and data for the excise taxes being collected) and data from NBS (background for the calculation of insurance services, BoP statistics – purchases of residents and non-residents etc.).

In addition to direct sources, which enter the calculation of FCH, also various extrapolation approaches are used depending on the relevant COICOP category. Here belong various estimates based on the calculations as price multiplied by quantity, estimates using various coefficients and percentages or calculations resulting from alternative data sources.

FCH is furthermore adjusted by the FISIM allocation and by grossing-ups made according to particular types of exhaustiveness (e.g. estimates for agricultural output for own final use, drugs, smuggling, tips, and prostitution).

Within the calculation of FCH in national concept, the final data resulting from domestic concept are increased by the values of purchases of Slovak residents abroad and, at

the same time, decreased by the expenditures of non-residents in the territory of the SR. Consumption of non-residents (workers and tourists) in the territory of Slovakia represents an estimate of financial means for their own consumption (purchase of clothes, food, etc.).

Estimates of final consumption of households in constant prices are calculated using appropriate indices of consumer prices (by which values in current prices are deflated) obtained from Price Statistics Department on quarterly basis by COICOP classification at the 3-digit level.

## **5.2 Government final consumption, including split individual/collective consumption**

Final consumption of general government (P.3) is calculated on quarterly basis from administrative statements FIN 1-12 Financial statement of revenue, expenditure and financial operations and FIN 2-04 Financial report on selected data of assets and liabilities in general government subject. It is composed of transactions:

- + P.1 (output)
- P.11 (market output)
- P.12 (own-account output)
- P.131 (payments for other non-market output)
- + D.632 (natural social transfers)

Output (P.1) entering the GGFCE (P.3) is a subject to the conceptual adjustments, described in chapter 4.1.

All adjustments are estimated based on annual data and quarterly development of previous periods.

General government final consumption expenditures (P.3) are divided into:

- Individual consumption expenditures (P.31) are natural social transfers (D.63), which are calculated as a sum of:
  - non-market output (D.632), which is calculated as sum of outputs of healthcare, education, social security, recreation and culture, according to COFOG classification
  - market output (D.632) which is equal to reimbursements to health insurance companies
- expenditures of collective consumption (P.32) are calculated as a difference between expenditures of general government final consumption and expenditures of individual consumption ( $P.32 = P.3 - P.31$ )

## **5.3 NPISH final consumption**

The value of final consumption of NPISH for S.15 on quarterly basis is result of following items:

$P.3$  (NPISH FCE) =  $P.1$  (output) –  $P.11$  (market output) –  $P.12$  (output for own final consumption) +  $D.632$  (social transfers in kind)

We have no statistical or administrative source of data for calculation of final consumption of non-profit institutions serving households on quarterly basis. Therefore, the estimate is made only using the appropriate annual indicators and development of number of units in S.15 in budget organizations and also based on growth rate between quarters, according to revised previous year.

**Table 12 – Final consumption divided to individual adjustments by institutional sector**

Component of Final consumption	in mill. €
Household final consumption	12 255
Government final consumption	4 245
NPISH final consumption	224
Final consumption total	16 724

## 5.4 Gross fixed capital formation

Gross fixed capital formation (P.51g) includes the acquisition of fixed assets minus sale fixed assets by producers-residents during the reference period plus certain increases in the value of non-produced assets, realized through the productive activity of the producer or institutional units. Fixed assets represents tangible or intangible assets, made as output during production process and are going to be used repeatedly in this process or permanently, for period longer than one year.

GFCF is compiled separately for every institutional sector, by production classification and by industry. Division by type of fixed assets is also used for revaluation of indicators to constant prices. Price indices are obtained from the Price Statistics Department. These prices are used for revaluation of GFCF to previous year's prices, and subsequently using chain-linking method we obtain data in chain-linked volumes.

The estimation of GFCF for individual type of assets is made for S.11 - S.15 sectors separately using both, the statistical surveys and administrative data sources. In case of S.13, for transfer data from administrative reports to ESA concept and for classification into the type of asset in quarters, a bridge table is used, by which the following EKRK items are included in GFCF (The individual EKRK items are shown in Table 14). As well as, the quarterly data in other sectors are adjusted by conceptual adjustments, e.g. small tools, own-account software capitalization, R&D and originals.

In some sectors, data from the quarterly surveys are also adjusted on data obtained from annual data due to the difference between automated calculated quarterly and annual source data occurred. This difference is divided into quarters using the ratios and year-on-year changes from source of data for quarterly national accounts.

**Table 13 – GFCF by types of assets in 3q2018**

in mil. €

Total	AN111	AN112	AN1131	AN1132	AN1139+AN114	AN115	AN117
GFCF	Dwellings	Other buildings and structures	Transport equipment	ICT equipment	Other machinery and equipment, weapons systems	Cultivated biological resources	Intellectual property products
<b>5 036</b>	593	1 514	740	95	1 718	65	311

*Gross fixed capital formation (GFCF) in dwellings (AN111) and other buildings and structures (AN112)*

The estimate for dwellings (AN111G) is made from the Quarterly questionnaire on the begun and finished dwellings (STAT 3-04) submitted by municipalities. Prices of family houses or dwellings are taken over from NBS statistics (prices of real estate) by type of dwellings and houses and by regions. The value of increase of new, finished dwellings is obtained by multiplication of the surface area of finished dwelling (house) by the average price of dwelling (house).

As concerns the estimates for recreational buildings, garages, general repairs and renovations on households' own-account and transfer of ownership costs, the baseline of the annual data for individual GFCF housing items (sector S.14) for the previous year is used, broken down into quarters by structure and proportionality.

In estimating the calculation of GFCF of general repairs, in cooperation with the Construction, Trade and Services Department from the Business Statistics Directorate, we use available relevant quarterly data on detailed construction output of residential buildings from direct statistical surveys for the Construction, Trade and Services Department. We used construction output for dwellings, the volume of construction output for reconstructions and modernizations of dwellings and houses to estimate GFCF of general repairs. We are talking about major renovations and repairs, such as roof replacement, insulation of an apartment building or a house, major repairs above 1700 euros, which are included in the GFCF. For S.11 and S.12 sectors, data for the acquisition and sale of residential buildings are obtained from the quarterly statistical sources (Prod 13-04, PEN 3-04, POI 3-04 and PIN 3-04) from module M112 - Acquisition and sale of tangible and intangible assets.

The estimate of **other buildings and structures** (AN112) is calculated from quarterly statistical (S.11, S.12) and administrative sources (S.13). Concerning the estimate of AN112 for sectors S.14 and S.15, the baseline is the annual GFCF AN112 data for the previous year, broken down into quarters according to structure and proportionality.

*GFCF in transport equipment (AN1131), ICT (AN1132), other machinery and equipment, including weapon systems (AN1139+AN114).*

Estimates for **transport equipment** are calculated from quarterly statistical (S.11, S.12) and administrative data sources (S.13). For the estimation of transport equipment for sectors S.14 and S.15, the baseline is the annual GFCF data for the previous year, broken down into quarters by structure and proportionality.

Estimates for **ICT** in sectors S.11 and S12 are based on the corresponding annual structure applied to total other machinery and equipment from statistical sources. The estimate for sector S.13 is compiled on the basis of EKRK (economic classification of the budget classification) items (table 14) from administrative sources. For the estimation of ICT for sectors S.14 and S.15, the baseline is the annual GFCF data for the previous year, broken down into quarters by structure and proportionality.

Estimates for **other machinery and equipment, including weapon systems** are calculated from statistical (S.11, S.12) and administrative sources (S.13). Related to estimate of GFCF for other machinery and equipment for sectors S.14 and S.15, the baseline is the annual GFCF data for the previous year, broken down into quarters by structure and proportionality.

To refine GFCF estimates, we also use the commodity flow method, the main components of which are imports and exports of capital goods.

*Cultivated biological resources (AN115)*

Estimates for **Cultivated biological resources** are calculated from quarterly statistical sources (S.11, S.12). The estimate for sector S.13 is compiled on the basis of EKRK items (table 14) from administrative sources. Concerning the estimation of Cultivated biological resources in sectors S.14 and S.15, the baseline is the annual GFCF data for the previous year, broken down into quarters by structure and proportionality.

*Intellectual property products (AN117)*

Intellectual property products mainly include research and development, computer software and databases and other intangible assets. *Computer software* is calculated from quarterly statistical sources (S.11, S.12). The estimate for sector S.13 is compiled using by EKRK items (table 14) from administrative sources. The GFCF estimation for IPP in sectors S.14 and S.15, the baseline is the annual GFCF data for the previous year, broken down into quarters by structure and proportionality. To refine the GFCF estimates, we also use the import and export of capital goods according to the CPA.

Due to the fact that data for *Research and Development* are not available in all sectors, we estimate them based on annual R&D data for the previous year and the development of year-on-year source data from the GFCF statistical and administrative sources of intangible assets in NACE 72 Scientific research and development.

Other intangible assets include small tools, own-account software capitalization, and originals, for which the underlying bases are annual GFCF data for the previous year, broken down into quarters by structure and year-on-year development of GFCF intangible assets by NACE from statistical sources.

**Table 14 - EKRK items**

Type of asset	EKRK Code	Name	ESA 2010 Code
	700000	Capital expenditures	P5111

<b>Other buildings and structures</b>	230000	Capital income	P5113
	231000	Income from the sale of capital assets	P5113
	239000	Other capital income	P5113
	239001	From pooled investment funds	P5113
	239002	From returns	P5113
	239200	Other	P5113
	716000	Preparatory and project documentation	P5111
	717000	Realization of constructions and their technical evaluation	P5111
	717001	Realization of new constructions	P5111
	717002	Reconstruction and modernization	P5111
	717003	Extensions, superstructures, building modifications	P5111
	718000	Reconstruction and modernization	P5111
	719000	Other capital expenditures	P5111
	719001	For pooled funds for investments	P5111
	719014	Returns	P5111
	719200	Other	P5111
	710000	Acquisition of capital assets	P5111
	712000	Purchase of buildings, structures or their parts	P5112
	712001	Of buildings, structures or their parts	P5112
	712002	Of buildings, structures intended for liquidation	P5112
<b>Roads</b>	Not estimated at quarter, it is part of other buildings and structures		
<b>Flats</b>	Not estimated at quarter, it is part of other buildings and structures		
<b>Decommissioning costs</b>	312002	From the state special purpose fund	P5111
	331001	From a foreign entity other than an international organization	P5111
	322002	From state special purpose fund	P5111
<b>Machinery and equipment</b>	718004	Of operating machines, devices, equipment, technology and tools	P5111
	718005	Of special machines, devices, equipment, technology and tools	P5111
	713000	Purchase of machines, devices, equipment, technology and tools	P5111
	713001	Of interior equipment	P5111
	713004	Of operating machines, devices, equipment, technology and tools	P5111
	713005	Of special machines, devices, equipment, technology and tools	P5111
<b>Military systems</b>	633005	Special machines, devices, equipment, technology and tools	P5111
<b>Hardware</b>	718002	Of computational technology	P5111
	713002	Of computational technology	P5111

<b>Radio, telecommunications</b>	713006	Of communication infrastructure	P5111
	718003	Of telecommunication technology	P5111
	718007	Of communication infrastructure	P5111
	713003	Of telecommunication technology	P5111
<b>HM Small tools</b>	633001	Interior equipment	P5111
	633002	Computational technology	P5111
	633003	Telecommunication technology	P5111
	633004	Operating machines, devices, equipment, technology and tools	P5111
	633005	Special machines, devices, equipment, technology and tools	P5111
	633006	General material	P5111
	633007	Special material	P5111
	633019	Communication infrastructure	P5111
	633200	Other	P5111
<b>Means of transport</b>	714000	Purchase of vehicles of all kinds	P5111
	714001	Of passenger cars	P5111
	714002	Of buses	P5111
	714003	Of motorcycles, boats, tricycles, quads	P5111
	714004	Of trucks, tractors, trailers, transport vehicles	P5111
	714005	Of special cars	P5111
	714006	Of transport planes, helicopters	P5111
	714007	Of other means of transport	P5111
<b>Cultivated biological resources</b>	233000	Income from the sale of land and intangible assets	P512
	233001	From the sale of land	P512
	719013	For purchase of animals in basic herd	P5111
<b>R&amp;D</b>	Estimate according to previous period		
<b>Computer software and databases</b>	718006	Of software	P5111
	711003	Of software	P5111
<b>Originals</b>	Estimate according to previous period		
<b>Other intellectual products</b>	719012	For special financial resources	P5111
	711005	Of other intangible assets	P5111
	711200	Of others	P5111
<b>NM Small tools</b>	633013	Software	P5111
	633018	Licenses	P5111

## Changes in Inventories

Changes in inventories are measured by the value of inputs incoming into inventories decreased by the value of withdrawals from inventories. Inventories cover all goods which are not recorded as GFCF and with which the resident units dispose. In the quarterly system of statistical questionnaires, they are traced in the following categories:

- material (raw materials, auxiliary substances, operating substances, spare parts, wrappings),
- work-in progress, own-produced semi-finished goods,
- finished goods and animals
- goods for resale.

Data obtained by the calculation of difference between opening and closing stocks are furthermore adjusted by holding gains/ losses, information from administrative sources (standing timber), mark-up for work in progress and by changes due to reclassification of entities and adjustments related to exhaustiveness and balance sheet adjustments.

**Table 15 – Changes in Inventories broken down to categories**

in mil. €	Materials	Work-in-progress	Finished products and animals	Goods for resale	P.52
3q 2018	666,5	-95,5	446,7	488,9	1 506,7

## Acquisitions and disposals of valuables

Valuables are defined as products with significant value, which are not used for production or consumption, but they are kept as means of preserving values. Their economical benefits lie in the fact, that their value does not change with general price level. Precious metals and gems, antiques, works of art, etc. are included. These types of products are recorded as acquisitions minus decrease of valuables and are part of gross capital formation.

**Table 19 – Acquisitions minus disposal of valuables segmented into institutional sectors in 3. quarter 2018**

in mil. €	S.1
Total	5

## 5.5 Imports/Exports

### *Import of goods*

**Table 20 – total import of goods segmented by Intra/Extra EU** in thd. €

Intra EU	Extra EU	Total
11 361 967	7 165 841	18 527 808

Within the compilation of quarterly national accounts for import of goods, the main data source is the Foreign Trade Statistics (FTS). It is segmented into systems of



INTRASTAT as a statistical source of data, which includes statistical survey of trading with products with member countries of EU as a partner countries and system of EXTRASTAT as an administrative data source, which is used for the compilation of trading statistics between SR and non-member EU countries, by using single customs declarations. Both systems (Intrastat and Extrastat) are collecting data for goods.

The data source for import of goods is further adjusted on NA concept (ESA2010) by the following items:

- Goods sent for processing (main adjustment of data source is exclusion of goods sent abroad for further processing and products imported to SR after processing abroad, so-called active and passive processing). Within the compilation of quarterly national accounts, as a data source is FTS, where this volume is determined by codes according to the type of trade. For active processing on import are codes 4-1, for passive processing codes 5-1.
- Trading of non-resident units registered in SR for VAT purposes. Exclusion of added value of non-resident units is carried out by comparing data from tax returns for VAT and data in FTS.
- Estimation of illegal activities. Within the calculation of import of goods, we take into account the import of drugs and smuggling of alcohol and cigarettes. Estimation of drug import is based on results taken over from surveys of European monitoring center for drugs and drug addiction EMCDDA. Estimation of smuggled products includes smuggling of alcohol and tobacco. It is based on information on the consumption of these items for a given period of time, number of consumers, data on the quantity of products seized during customs controls, together with information from media.
- Consumption of residents. There is needs to add a volume of consumption of residents in SR using the data source from LFS and tourism from BoP (NBS). In this adjustment, the distinguish between two groups - working residents and residents as a tourists. Calculation for consumption of working residents: estimation based on YoY + index of growth of residents in observed period (year-on-year) by LFS. For calculation of consumption of residents as tourists, there is applied the same method using the coefficient for tourism growth index in BoP on payments.

**Table 21 – Calculation of import of goods** in thd. €

			<b>3Q</b>
<b>P.71</b>	<b>Import of products</b>	<b>=</b>	<b>18 527 808</b>
	Import of goods according to FTS	+	18 682 894
	Of which active processing	-	135 201
	Of which passive processing	-	77 674
	Non-resident trading	+	62 503
	Import of drugs	+	13 351
	Import of smuggled products	+	8 339
	Consumption of residents	+	73 596
	Balancing	+	-100 000

## Import of services

**Table 22 – total import of services segmented into Intra/Extra EU** in thd. €

Intra EU	Extra EU	Total
2 022 227	420 179	2 442 406

Main data source for import of services is a Balance of Payments (from NBS). BoP for import of services is compiled on basis of Quarterly report on services received from abroad and services provided abroad SLUZ(PB)1-04. Only a part of data from BoP is replaced by calculations carried out by SO SR. These are revenues from passive processing and FISIM service.

- In case of revenue from passive processing, there is a difference between passive processing on side of import of goods and passive processing on side of export of goods (more information is given in import and export of goods).
- Import of FISIM services – it is calculated as sum of imported FISIM services from provided credits (credits, taken by residents abroad) and sum of imported FISIM services from deposits (deposits, inserted by residents abroad). Calculation algorithm of FISIM services for import is identical as in calculation of export of FISIM services.  
The external reference interest rate (used in the calculation of imports of FISIM services) is calculated as a ratio of interest received on loans plus interest on deposits between resident and non-resident financial institutions and stocks of loans plus stocks of deposits between resident and non-resident financial institutions.
- Consumption of residents – same as for goods.

**Table 23 – Calculations for import of services** in thd. €

			3Q
P.72	Import of services	=	2 442 406
	Import of services from NBS	+	2 309 310
	Revenues from passive processing	+	30 599
	Import of FISIM	+	44 341
	Consumption of residents	+	58 156

## Export of goods

**Table 24 – total export of products segmented into Intra/Extra EU** in thd. €

Intra EU	Extra EU	Total
15 863 071	2 777 297	18 640 368

The main data source for the compilation of export of goods is foreign trading statistics. For export, the same description is applied as for import. Data source for export of goods is further adjusted on NA concept (ESA2010) by the following items:

- Goods for processing (main adjustment of data source is exclusion of goods sent abroad for further processing and goods imported to SR after processing abroad, so-called active and passive processing). Within the compilation of quarterly national accounts, as a data source is FTS, where this volume is determined by codes according to the type of trade. For active processing on import are codes 5-1, for passive processing codes 4-1.
- Data for merchanting are taken from NBS as a net export of goods within trading between resident and non-residents, without entering of goods into SR territory. As a data source is used quarterly report on services taken from NBS - SLUZ 1-04.
- Trading of non-resident units registered in SR for VAT purposes. The description is the same as in case of import of goods.
- Consumption of non-residents. As a data source for calculation of volume of non-resident consumption in SR is used information from ÚPSVaR and tourism statistics obtained from BoP (NBS). Calculation of non-residents consumption is the same as for import of goods. For working non-residents there enters growth index of non-residents in observed period (year-on-year) by ÚPSVaR as coefficient. For consumption of non-resident tourists, there enters coefficient of index of growth of tourism in BoP on credit side.

**Table 25 – Calculation of export of goods** in thd. €

			3Q
<b>P.61</b>	<b>Export of products</b>	=	<b>18 640 368</b>
	Export of products by ŠZO	+	19 022 124
	Of which active processing	-	205 663
	Of which passive processing	-	47 075
	Clear export of goods - merchanting	+	1 136
	Trading of non-residents	+	-146 075
	Consumption of non-residents	+	15 921

### *Export of services*

**Table 26 – Total export of services segmented into Intra/Extra EU** in thd. €

Intra EU	Extra EU	Total
2 123 325	550 284	2 673 609

Payment balancing (from NBS) is the main source of data for export and import of services. Payment balancing in part of standard account – export of services is created on basis of Quarterly report on received services from abroad and services given to abroad SLUZ(PB)1-04. Part of the data from payment balancing is replaced by own calculations of SO SR. These are revenues from active refining, values for FISIM and illegal activities (prostitution).

- Revenues from active refining are difference between active refining on side of export of products and active refining on side of import of products (more information in import and export of products).
- Export of FISIM services – it is calculated as a sum of FISIM from loans provided to non-resident units and FISIM from deposits received from non-resident units.

Calculation algorithm of export of FISIM is the same as calculation of import of FISIM services.

- Export of prostitution services – Source data for estimation of this item is determining of number of persons doing this occupation and average prices for provided services. Information is obtained from publicly available sources, websites of relevant organizations, dealing with human trafficking and press releases.
- EU services – collection of taxes and insurance. It represents a part of the value of levies of SR from traditional own resources. An estimate based on YoY is used to create a quarterly national accounts.
- Consumption of non-residents – same as in case of products.

**Table 27 – Calculation of export of services** in thd. €

			<b>3Q</b>
<b>P.62</b>	<b>Export of services</b>	<b>=</b>	<b>2 673 609</b>
	Export of services from NBS	+	2 516 426
	Revenues of active processing	+	70 462
	Prostitution	+	14 086
	EU services – tax collection and insurance	+	6 100
	Export of FISIM	+	20 830
	Consumption of non-residents	+	45 705

## **Chapter 6 – Estimation of GDP and its components in the income approach**

For calculation of GDP by income method is not used independent method. Reason for this is lack of relevant data for direct independent calculation of operating surplus and mixed incomes. Both sub-aggregates are obtained as balancing difference in the Generation of income sector accounts.

Definitions of institutional units and sectors, used classifications and main data sources are same as for the compilation of GDP by production method. Compilation of wages and salaries for employees, taxes and subsidies for production is based on quarterly statistical surveys and administrative data sources. Operating surplus and mixed income are balancing items of Generation of income account.

### **6.1 Compensation of employees, including components**

Compensation of employees D.1 includes total wages and salaries in form of cash or in kind, paid by the employer as wage for work made during a given period. In quarterly national accounts, they are recorded on use side of Generation of income account. The item D.1 is divided into wages and salaries (D.11) and social contributions from employers (D.12) by individual sectors and subsectors. Social contributions from employers are further divided into actual social contributions (D.121) and imputed social contributions (D.122). The main data source for D.1 calculation are data from quarterly statistical surveys and administrative data sources. The following indicators by individual components are taken from the statistical surveys, while some indicators are only available in annual statistical surveys, but not quarterly. These data are estimated on quarterly basis based on the last available annual values.

Wages and salaries (D.11):

- Wages and wage compensation of employees
- Compensation for work on-call duty outside the workplace
- Cash benefits from profit after tax by own employees
- Other cash payments of expenses
- Severance pay
- Income in kind (estimation)

Social contributions from employers (D.12):

- Compulsory contributions for statutory insurance paid by the employer for employees
- Voluntary social contributions from employers (estimation)
- Compensation of income in case of temporary incapacity for work
- Social costs (estimation)

Basis for the calculation of transactions D.11 and D.12 in sector of non-financial corporations are quarterly statistical surveys Prod 3-04 for large companies and Prod 13-04 for small companies. Within the sector of financial corporations are used quarterly surveys Pen 3-04 (survey on banking institutions), Pin 3-04 (survey on non-banking institutions) and Poi 3-04 (survey on insurance).

Concerning the general government sector, the administrative source of data Fin 1-12 (monthly survey on revenues and expenditures of general government entities), which is managed by the Ministry of Finance of the Slovak Republic, is used. This type of survey includes the data on revenues and expenditures of general government entities on cash basis divided by economic classification of the budget classification (EK RK). In accordance with ESA 2010 methodology, a bridge table was built, according to which the EK RK items entering the calculation of compensation of employees are defined.

For calculation of Compensation of employees in sector of non-profit institutions serving households is used a survey Práca 2-04 (quarterly survey on Labour), which selectively covers NPISH. For households sector S.14 there are no statistical surveys on quarterly basis, therefore an expert estimation is made based on number of employees and the development of average wage per employee in the time series. Compensation of employees for total national economy are reported as their sum for individual sectors S.11 to S.15. The data quality of item Compensation of employees is verified by comparison with employment data in domestic ESA 2010 concept. The share indicators are checked in the time series and also at the level of NACE divisions – average compensation per employee and average compensation per hour worked.

To ensure the completeness of the data within the Income approach, the additional calculations are made for indicator of compensation of employees. Specifically, these are adjustments for compensation of unregistered employees, for underestimating reported wage data and tips in services (in sectors S.11 and S.14) and for production used for compensation in kind (in sector S.13). The employment balancing method as well as data from public polls and administration sources are used in the compilation of estimates for individual components of non-observed economy.

## **6.2 Taxes and subsidies on production**

### *Other taxes on production*

Other taxes from production D.29 consists of all taxes, which are paid by reporting units by reason of their business activity, regardless of the quantity or value of realized production (products and services produced or sold). Other taxes on production mainly cover regularly paid taxes on ownership of land, buildings, structures used in production process and from use of property (vehicles, machinery and equipment) for commercial purposes, e.g. road tax, pollution charges, business fees and trade licenses paid by companies for the purpose of obtaining a license to pursue a particular type of business or profession, charges for use of dwellings for purposes other than accommodation, use of public space and revenues from stamp sales. In the group of fees, these are mainly: registration, administration, court and notary services. Waste collection and disposal fees are not included. They are considered as common taxes on income, wealth, etc.

As a main data source on quarterly basis, the administrative data source of Fin 1-12 survey is used.

### *Other subsidies on production*

Other subsidies on production D.39 include subsidies on elimination of unfavorable results in worse natural conditions, subsidies for the protection of the territory against the harmful effects of water, subsidies for management of watercourses, for works of public benefit, subsidies for abatement programs for ore and coal mining, subsidies for public bus transport, for financing and operation and maintenance of land reclamation facilities, for forest management, for the support of small and medium-sized enterprises, for the support of tourism, for the support of artistic creation, for reducing program for eliminating of energy intensity and use of alternative energy sources, subsidies on production for cooperatives of the disabled persons. The main data source is Fin 1-12 survey. Data are adjusted for EU flows.

### **6.3 Gross operating surplus & mixed income**

Gross operating surplus B.2g for the national economy represents a sum of net operating surpluses for individual sectors, increased by consumption of fixed capital. It is a differential balancing item and is not quantified separately. All conceptual adjustments from the production method are included in the operating surplus through the value added of individual sectors.

Mixed income B.3 is a balancing item of generation of income account in S.14. Gross mixed income includes also consumption of fixed capital. All conceptual adjustments from the production method are included in mixed income account through the value added in household sector.





## Chapter 7 – Population and employment

### 7.1 Population

Variable of total population transmitted within transmission programme is calculated making use of demographic statistics data. Population data in demographic statistics cover persons with permanent residence in the territory of the Slovak Republic (SR citizens, EU citizens registered on permanent residence in the SR and third country nationals who were granted permanent residence permit in the SR). The population data reflect the results of the most recent Population and Housing Census, updated annually, based on the results of the statistical surveys on vital statistics and migration conducted by the Statistical Office of the Slovak Republic. The results of the surveys are processed monthly. The dates of occurrence of demographic events (births, deaths and changes of permanent residence), not the dates of the civil registration of demographic events, are used in compiling of population data.

The total population for the reference quarter is calculated as the arithmetic mean of the population figures for the end of the respective months of the quarter and the preceding month, e.g. for the first quarter of the year it would be the average of the month-end population figures for December, January, February and March. The annual total population is computed as an average of the values for quarterly population.

### 7.2 Employment: persons

The total employment in persons of domestic concept ESA2010 is compiled by balancing method based on comparison and reconciliation of data on supply side of labour force with the demand for labour force. The supply of labour force is represented here by data obtained by Labour Force Survey in households (LFS) which correspond to the national concept of employment. This data are adjusted with regard to the coverage and the domestic concept of ESA2010. Demand for labour force is represented by data from statistical business surveys, which are already expressed in domestic concept. They are combined with administrative sources and expert estimates.

The main sources used are business statistical surveys (quarterly and annually) and administrative sources. Business statistical surveys are organised by the SO SR in line with the Law on State Statistics. This group covers surveys specifically focused on employment data (for General Government and NPISH units) and surveys focused on production data with a separate module for employment (for financial and non-financial corporations). The main indicator taken from statistical surveys is the *average recorded number of employees in physical persons*. In addition, also the following indicators are reported: *average number of employees in full-time equivalents*, *number of jobs on agreement* (short-term or one-off jobs), *hours worked of employees* and *hours worked by jobs on agreement*. The advantage of the structural surveys is that the indicators of employment and hours worked are directly linked to the indicators of output and value added. Administrative sources (monthly data) are used to adjust LFS data to the ESA2010 domestic concept and to estimate employment for the units not covered by

business surveys (self-employed persons, employers and their employees from the households sector). The main institutions serving as administrative sources are the Social Insurance Agency, the Central Office of Labour, Social Affairs and Family of the Slovak Republic and the SO SR.

Adjustments on the supply side start with the total number of persons working in the main job from LFS. This number includes also persons who are officially registered as unemployed but take part in the so called activation works getting remuneration in the form of social benefits (within the framework of active measures taken by the Labour Office). These persons are not included on the demand side (i.e. in business surveys), thus their number is deducted from total of persons working.

Within adjustments to the domestic concept the number of persons working abroad (less than 1 year) and the employees of non-resident institutions in the SR (LFS figures) are deducted from LFS data. Non-residents working for resident units (less than 1 year), employees of Slovak embassies and members of Slovak armed forces located abroad are added. Within adjustments regarding the coverage the estimate of number of working persons living in the collective households (students living in dormitories, church workers, clergymen, working prisoners) is added.

The data from the business statistical surveys (demand side) already correspond to the domestic concept so no further adjustments are needed. The number of employees is estimated for each institutional sector using the data from surveys or administrative sources. From the institutional unit's point of view, the concept of employees is in persons (the employee with two jobs within the same firm is recorded only once) but in terms of the whole economy, the concept is rather jobs (one can have two jobs in different firms). For that reason from the total number of employees from the statistical surveys we subtract the estimate of secondary jobs (we use the ratio of main to secondary jobs from LFS). We add the number of jobs on agreement but expressed in full-time equivalents. This estimate is comparable with the number of persons working on agreement surveyed also within LFS employment. The number of persons on maternity leave (taken from LFS) is added as it is not included in the statistical surveys.

The number of self-employed persons are estimated by use of administrative sources – mainly social insurance (managed by Social Insurance Agency) and statistical register of organisations (managed by SO SR). The numbers and growth rates are compared also with the data on self-employed taken from LFS.

Subsequently the adjusted figures from both sides are being compared and balanced. The comparison of longer time series shows that the employment from the supply side (LFS) is always higher than from the demand side (surveys). It is assumed that employment taken from LFS covers better the short-term, seasonal jobs and includes also part of non-observed economy. Thus, the employment from the supply side is furthermore adjusted within the tolerance of the statistical deviation and the remaining difference is considered as non-registered employment and is added to the number of employees in the households sector on the demand side. The resulting figure is treated as definitive estimate of the domestic concept of total employment for the entire economy. The reconciliation of labour force from supply side for the 3rd quarter 2018 is shown in Table 28.

**Table 28 - Reconciliation of labour force from the supply side – 3rd quarter 2018**

	Data source	Persons
<b>Total employment LFS - main jobs</b>	LFS	2 579 008
Persons on activation work (-)	LFS	- 44 964
Residents working for non-resident units – short-term (-)	LFS	- 138 953
Non-residents working for resident units – short-term (+)	administrative	51 847
Employees of non-resident institutions in the SR (-)	LFS	- 631
Employees of embassies of the SR and the members of army located abroad (+)	administrative	1 030
Workers from collective households (students, prisoners, clergymen) (+)	administrative	12 700
Other adjustment – balance of the labour force		- 28 900
<b>Total employment – domestic concept</b>		<b>2 431 137</b>
<i>of which</i>		
employees	business surveys	2 113 557
self-employed persons	administrative	317 580

Breakdown by industry A10 of employment in persons (domestic concept) is constructed from business surveys data, not from LFS. The LFS figures may be less reliable in detailed industry breakdown due to the higher relative standard error that follows from the methodology of the sample survey. Employment from LFS (national concept) is provided within the table 110 of the ESA2010 transmission programme. Employment according to the domestic concept (employees and self-employed) together with hours worked are provided within the table 111 of the ESA2010 transmission programme including the industry breakdown A10.

### 7.3 Employment: total hours worked

Total hours worked are not constructed by adjustment of LFS data on hours worked. They are compiled separately for individual institutional sectors using data from business statistical surveys and expert estimates. Total hours worked consist of hours worked for the following categories of workers:

- employees (including non-registered)
- jobs on agreement
- working prisoners
- activation work
- self-employed

The main data source for computation of hours worked are annual and quarterly business statistical surveys. The survey questionnaires include the indicators *hours worked of employees* and *hours worked of persons with job on agreement*. The definition of hours worked in the questionnaires is in accordance with ESA2010 definition of hours worked.

It captures the actual hours worked by all employees (i.e. in all jobs) including these categories:

- hours worked within normal or contractual hours as well as overtime
- paid working time spent on a business trips
- inactive on-call work time spent at the work-place
- short periods of rest during the workday, tea and coffee breaks

The definition excludes hours paid for but not worked, such as paid annual leave, paid public holidays, paid sick leave, parental leave, strikes, etc.. Hours worked by non-residents working for resident units are recorded by the surveys and the hours worked by residents working abroad for non-resident units are excluded (i.e. out of scope of the surveys).

Hours worked of prisoners and activation workers are estimated. Activation works are excluded from employment in persons but they are treated as secondary jobs so hours worked are assigned for them. Hours worked of self-employed are computed by using the number of self-employed persons and usual weekly working hours of self-employed from LFS (also for industry breakdown A10).

Breakdown by industry A10 of hours worked of employees is taken also from business surveys data, not from LFS, for the same reason as for employment in persons. The hours worked are thus directly harmonized with the employment figures in persons.



## Chapter 8 – Flash estimate

### 8.1 Flash GDP estimate

The flash estimate data are compiled using the production and expenditure approach. The difference in the volume of GDP calculated by the production and expenditure approach results from the different data sources used in compiling the GDP, as well as from the lower availability of data on a quarterly basis. The difference between the production and expenditure approach of GDP is expressed separately in the preliminary results from the quarterly accounts as a statistical discrepancy.

The data are compiled in accordance to the following components:

- **production of GDP:** output, intermediate consumption, value added and net taxes on products, and
- **expenditure components:** final consumption of households, final consumption of non-profit institutions serving households, final consumption of General Government, gross fixed capital formation, change in stocks and valuables, exports and imports of goods and services.

Flash estimate of GDP is usually available within 45 days after the end of the reference quarter. More detailed results are within 70 days after the end of the reference quarter.

The data are preliminary at the time of first publication. The data become definitive after the closure of the annual national accounts and tables for supply and admission 3 years after the end of the reference year. Preliminary and definitive data are marked in the published materials.

#### Data sources

GDP by production activity: A comprehensive and up-to-date Statistical Business Register is used to design regular full and sample surveys, which are the main source of data for financial and non-financial corporations.

The flash estimate for sector S.13 is calculated using the administrative data sources obtained from the State Treasury (ST), in the case of local governments (local authorities and municipalities), transport companies and some hospitals obtained from the Datacenter. These are statements FIN 1-12 and FIN 2-04.

Sole traders not registered in the Business Register are estimated on the basis of information in Database Roč 3 (This microdata database consists from the combination of various administrative data sources and is calculated for the entire population according to the Statistical Business Register). The quarterly breakdown of volumes is made on the basis of the development of sales of sole traders based on monthly surveys. The flash estimate also reflects the development trends for sole traders (indices of sales from the survey of monthly industry statistics).

Statistical survey - Práca 2 - 04 (sample) is used to calculate the flash estimate of GDP for sector S.15 on quarterly basis.

In the Statistical Business Register, we export the number of organizations for a given quarter, item ESA2010=15000. We filter active organizations from the export of organizations, where we will sort the number of organizations according to NACE and KATP. We make a year-on-year comparison of the number of organizations of individual NACE, KATP in a given quarter. We compare quarterly values with respect to the number of organizations and individual years and the quarterly estimate. We make a year-on-year and quarter-on-quarter comparison of the total number of active organizations in S.15. Comparison of calculations; recalculation of indices based on the growth rate of the number of organizations. Evaluation of all calculations and estimation of quarterly indicators. The indicators required for FLASH, improved estimate of P.2, D.11, D.121, D.122, D.29, P.51c, P.11, the others are only expertly estimated in the same way. In this way, we obtain values at current prices, that are consequently adjusted according to a price index (deflator) taken from S.13. Based on it, we then convert current prices to constant prices (PPY) and chaining, in which the volume indices are chained 2015=100. In quarterly accounts there is a lack of datasources, so it is necessary to take into account entire time series and their development and number of organizations in the sector.

GDP by expenditure category: Household data are compiled on the basis of retail data, HBS and other administrative and statistical sources. The main sources of data on expenditures for the general government sector are quarterly reports provided by the Ministry of Finance and a monthly report on state budget revenues and expenditures. Data on gross fixed capital formation and inventories are obtained from regular surveys of enterprises. The main source of data on imports and exports is the balance of payments, Intrastat and Extrastat.

### **GDP estimation procedure**

GDP by production activities: Estimates of gross output and intermediate consumption at current prices are compiled using basic primary data sources. Gross value added is calculated as the difference between gross output and intermediate consumption. The data recorded in the sample survey are adjusted by standard procedures to achieve full coverage.

Recalculations to constant prices are made by double deflation of gross output and intermediate consumption using appropriate price indices. In total, deflation is performed by 10 sections of SK NACE Rev.2 in the case of quarterly results.

GDP by expenditure category: The main source of data in estimating household final consumption is data from retail trade, HBS and other administrative and statistical sources. Estimates of household final consumption at constant prices are calculated using the relevant consumer price indices for forty-five COICOP groups. Estimates of General Government final consumption expenditures are obtained directly from data sources processed by the Ministry of Finance of the Slovak Republic. Data on employee remuneration are deflated separately, when converted into constant prices. At the same time, the wage index adjusted for the effect of labor productivity is used for deflation. Intermediate consumption is recalculated on the basis of the relevant price indices. Consumption of fixed capital is deflated by the price index used to recalculate gross fixed capital formation. Data on fixed capital formation are obtained

from fixed assets procurement statistics and converted into constant prices using the relevant industrial producer price indices (for fixed capital formation from domestic production). The change in stocks is obtained as the difference between the reported value of stocks at the beginning and the end of the reference period from regular surveys. Inventory data at the beginning and end of the current period are deflated separately for agriculture, industry, construction, trade and transport, using the relevant industrial producer price indices. Estimates of imports and exports of goods and services at constant prices are obtained by deflation using adjusted price indices of domestic production and adjusted price indices of foreign trade. Time series of GDP data are compiled according to ESA2010 and are also available at constant prices of the previous year and at chain-linked volumes using the reference year 2015.

## **8.2 Flash employment estimate**

Flash estimate of total employment (in unadjusted as well as in seasonally adjusted form) is regularly produced and published by the SO SR at T+45 days after the reference quarter. The figure for total employment is compiled by the method of reconciliation and balancing of labour data on supply side (represented by LFS) and demand side (statistical business surveys) as it is described more in detail in chapter 3 and 7.

Data from LFS and statistical surveys in enterprises are available at around 37 days after the reference quarter but no sooner than T+30. Administrative data relevant for T+45 flash estimates are mostly available only for the first two months of the quarter. The figure of total employment is not usually revised between the flash (T+45) and regular (T+60) estimate because no more relevant data sources are available between these time points. At T+60 more detailed data on employment (split into employees, self-employed and NACE industries, the same with hours worked) are compiled and published at national level.



## Chapter 9 – Main data sources

The list of data sources is given in the table 29.

**Table 29 – The list of data sources**

number	Name of data source	Survey	Use in the method of estimating GDP		
			Production	Expenditure	Pension
1	Quarterly questionnaire on business statistics	Prod 3-04	x	x	x
2	Quarterly questionnaire on business statistics in small enterprises	Prod 13-04	x	x	x
3	Quarterly enterprise questionnaire on banking	Pen 3-04	x	x	x
4	Quarterly enterprise questionnaire on nonbanking financial institutions	Pin 3-04	x	x	x
5	Quarterly questionnaire in insurance	Poi 3-04	x	x	x
6	Quarterly questionnaire on labour	Práca 2-04			x
7	Monthly questionnaire on trade, restaurants and accommodation	OPU 1-12	x	x	
8	Monthly questionnaire on transport	DOP 1-12	x	x	
9	Monthly questionnaire on selected market services	VTS 1-12	x	x	
10	Monthly questionnaire on information and communication	IKaP 1-12	x	x	
11	Quarterly questionnaire on the begun, in progress and finished dwellings	STAV 3-04		x	
12	Statistics on household budgets			x	
13	Statistical balance sheet - liabilities	V (NBS) 5-12	x		
14	Statistical balance sheet - assets	V (NBS) 33-12	x		
15	Quarterly statement on interest costs and revenues	V (NBS) 13-04	x		
16	Statistical balance sheet	V (NBS) 81-04	x		
17	Foreign Trade Statistics			x	
18	Statistics of the motor vehicles			x	
19	Balance of Payments	SLUZ (PB) 1-04		x	
20	Monthly profit and loss statement	BIL 2-12	x		
21	Survey on selected data on individual financial statements of insurance companies	VUP 1-04	x		
22	Financial statement of revenue, expenditure and financial operations	FIN 1-12	x	x	x
23	Financial statement on selected data from A and P of general government subjects	FIN 2-04	x	x	
24	Overview of income, expenses and management of health insurance company	VZP	x	x	

A more detailed description of the individual data sources is given below:

<b>Name of survey: Prod 3-04 Quarterly questionnaire on business statistics</b>
Link to surveys undertaken at the European level:
Periodicity: quarterly
Time of availability of results: t+26 days after reference period
Main variables used in QNA: Variables for Output:
– Revenues from sales of own goods and services
– Revenues from sales of own goods and costs on the sold goods

<ul style="list-style-type: none"> <li>- Changes in inventories of work-in-progress</li> <li>- Capitalisation</li> </ul> <p>Variables for Intermediate Consumption:</p> <ul style="list-style-type: none"> <li>- Consumption of material, energy and services</li> <li>- Shortages and losses on inventories</li> </ul> <p>Variables for gross capital formation:</p> <ul style="list-style-type: none"> <li>- Acquisition and sale of durable assets</li> <li>- Changes in inventories</li> </ul>
Further adjustments made to the survey data:

<b>Name of survey: Prod 13-04 Quarterly questionnaire on business statistics in small enterprises</b>
Link to surveys undertaken at the European level:
Periodicity: quarterly
Time of availability of results: t+25 days after reference period
<p>Main variables used in QNA:</p> <p>Variables for Output:</p> <ul style="list-style-type: none"> <li>- Revenues from sales of own goods and services</li> <li>- Revenues from sales of own goods and costs on the sold goods</li> <li>- Changes in inventories of work-in-progress</li> <li>- Capitalisation</li> </ul> <p>Variables for Intermediate Consumption:</p> <ul style="list-style-type: none"> <li>- Consumption of material, energy and services</li> <li>- Shortages and losses on inventories</li> </ul> <p>Variables for gross capital formation:</p> <ul style="list-style-type: none"> <li>- Acquisition and sale of durable assets</li> <li>- Changes in inventories</li> </ul>
Further adjustments made to the survey data: Sample survey, therefore data are grossed-up.

<b>Name of survey: Pen 3-04 Quarterly enterprise questionnaire on banking</b>
Link to surveys undertaken at the European level:
Periodicity: quarterly
Time of availability of results: t+25 days after reference period
<p>Main variables used in QNA:</p> <ul style="list-style-type: none"> <li>- Fees and commissions received</li> <li>- Acquisition and sale of durable assets</li> </ul>
Further adjustments made to the survey data:

<b>Name of survey: Pin 3-04 Quarterly enterprise questionnaire on nonbanking financial institutions</b>
Link to surveys undertaken at the European level:
Periodicity: quarterly
Time of availability of results: t+25 days after reference period
<p>Main variables used in QNA:</p> <p>Variables for Output:</p> <ul style="list-style-type: none"> <li>- Revenues from sales of own goods and costs on the sold goods</li> <li>- Revenues from sales of securities and shares, securities and shares sold</li> <li>- Changes in inventories</li> <li>- Capitalisation</li> <li>- Income from financial leasing</li> <li>- Income from operative leasing</li> </ul> <p>Variables for Intermediate Consumption:</p> <ul style="list-style-type: none"> <li>- Consumption of material, energy and services</li> <li>- Shortages and losses on inventories</li> </ul> <p>Variables for GFCF</p> <ul style="list-style-type: none"> <li>- Acquisition and sale of durable assets,</li> </ul>
Further adjustments made to the survey data:

<b>Name of survey: Poi 3-04 Quarterly questionnaire in insurance</b>
Link to surveys undertaken at the European level:
Periodicity: quarterly
Time of availability of results: t+25 days after reference period
Main variables used in QNA: Variables for Output: <ul style="list-style-type: none"> <li>- Premiums written</li> <li>- Social contributions received from employees and employers</li> <li>- Costs on insurance claims</li> <li>- Social benefits funded by private funds</li> <li>- Fees and commissions received</li> </ul> Variables for Intermediate Consumption: <ul style="list-style-type: none"> <li>- Consumption of material, energy and services</li> </ul>
Further adjustments made to the survey data:

<b>Name of survey: Práca 2 – 04 – Quarterly survey on Labour</b>
Link to surveys undertaken at the European level (e.g. short term business statistics): Regulation (EC) 2223/96 on the European system of national and regional accounts in the Community
Periodicity (e.g. quarterly/monthly/other- to be specified): Quarterly
Time of availability of results (e.g. 40 days after the end of the reference period): T + 30 days after the reference period
Main variables used in QNA: Condition: ESA2010 = 15000 <ul style="list-style-type: none"> <li>- average registered number of employees;</li> <li>- hours worked by employees;</li> <li>- persons working on agreements;</li> <li>- wages, compensation of employees;</li> <li>- compensation for on-call duty outside the workplace;</li> <li>- severance pay;</li> <li>- income compensation in the event of temporary incapacity for work;</li> <li>- compulsory contributions to statutory premiums paid by the employer.</li> </ul>
Further adjustments made to the survey data: A more detailed description is in Chapter 4

<b>Name of survey: OPU 1-12 – Monthly questionnaire on trade, restaurants and accommodation</b>
Link to surveys undertaken at the European level (e.g. short term business statistics): Regulation (EC) 2223/96 on the European system of national and regional accounts in the Community
Periodicity (e.g. quarterly/monthly/other- to be specified): monthly
Time of availability of results (e.g. 40 days after the end of the reference period): T + 30 days after the reference period
Main variables used in QNA: Turnover less VAT (in €)
Further adjustments made to the survey data:

<b>Name of survey: Dop 1-12 – Monthly questionnaire on transport</b>
Link to surveys undertaken at the European level (e.g. short term business statistics): Regulation (EC) 2223/96 on the European system of national and regional accounts in the Community
Periodicity (e.g. quarterly/monthly/other- to be specified): monthly
Time of availability of results (e.g. 40 days after the end of the reference period): T + 30 days after the reference period
Main variables used in QNA: Turnover less VAT (in €)
Further adjustments made to the survey data:

<b>Name of survey: VTS 1-12 – Monthly questionnaire on selected market services</b>
Link to surveys undertaken at the European level (e.g. short term business statistics): Regulation (EC) 2223/96 on the European system of national and regional accounts in the Community
Periodicity (e.g. quarterly/monthly/other- to be specified): monthly
Time of availability of results (e.g. 40 days after the end of the reference period): T + 30 days after the reference period
Main variables used in QNA: Turnover less VAT (in €)

Further adjustments made to the survey data:
<b>Name of survey: IKaP 1-12 – Monthly questionnaire on information and communication</b>
Link to surveys undertaken at the European level (e.g. short term business statistics): Regulation (EC) 2223/96 on the European system of national and regional accounts in the Community
Periodicity (e.g. quarterly/monthly/other- to be specified): monthly
Time of availability of results (e.g. 40 days after the end of the reference period): T + 30 days after the reference period
Main variables used in QNA: Turnover less VAT (in €)
Further adjustments made to the survey data:
<b>Name of survey: STAV 3-04 Quarterly questionnaire on the begun, in progress and finished dwellings</b>
Link to surveys undertaken at the European level: Regulation of the Council (EC) No.1165/98 on the short-term statistics as amended by the Regulation of the European Parliament and the Council (EC) No. 1158/2005.
Periodicity: quarterly
Time of availability of results: T + 37 days after the reference period
Main variables used in QNA: Variables for GFCF dwellings: – Basic data on dwellings, size of finished dwellings, construction permits on the construction of new buildings
Further adjustments made to the survey data: A more detailed description is in Chapter 5.4
<b>Name of survey: Statistics on household budgets</b>
Link to surveys undertaken at the European level (e.g. short term business statistics): A gentlemen agreement“ adopted by the Statistical Programme Commission (SPC) in 1989
Periodicity (e.g. quarterly/monthly/other- to be specified): annually
Time of availability of results (e.g. 40 days after the end of the reference period): 7 months after the end of year
Main variables used in QNA: Data on expenditures and income of households.
Further adjustments made to the survey data:
<b>Name of data source: V (NBS) 5-12 - Statistical balance sheet - liabilities</b>
Organisation collecting the data, and purposes for which it is collected: National Bank of Slovakia (NBS); Administrative data, which are used for the compilation of national accounts.
Periodicity: Monthly
Variables used for QNA: The amount of deposits broken down by time and economic sectors and sub-sectors of the European system of national accounts. The reporting units are commercial banks of Slovakia and the affiliates of foreign banks in Slovakia.
Further adjustments made to the data: A more detailed description is in Chapter 4
<b>Name of data source: V (NBS) 33-12 - Statistical balance sheet - assets</b>
Organisation collecting the data, and purposes for which it is collected: National Bank of Slovakia (NBS); Administrative data, which are used for the compilation of national accounts.
Periodicity: Monthly
Variables used for QNA: Credits provided to clients broken down by types and time into institutional sectors and sub-sectors of the European system of national accounts. The reporting units are commercial banks of Slovakia and the affiliates of foreign banks in Slovakia.
Further adjustments made to the data: A more detailed description is in Chapter 4
<b>Name of data source: V (NBS)13-04 – Quarterly statement on interest costs and revenues</b>
Organisation collecting the data, and purposes for which it is collected: National Bank of Slovakia (NBS); Administrative data, which are used for the compilation of national accounts.
Periodicity: Monthly
Variables used for QNA: Interest costs and interest revenues from clients broken down by institutional sectors and sub-sectors of the European system of national accounts, statistical classification of economic activities and by municipalities. The reporting units are commercial banks of Slovakia and the affiliates of foreign banks in Slovakia.
Further adjustments made to the data: A more detailed description is in Chapter 4
<b>Name of data source: M (NBS) 81-04 - Statistical balance sheet</b>
Organisation collecting the data, and purposes for which it is collected: National Bank of Slovakia (NBS); Administrative data, which are used for the compilation of national accounts.
Periodicity: Quarterly

Variables used for QNA: Financial indicators in non-banking financial institutions, loans, assets and liabilities broken down by institutional sectors and sub-sectors of the European system of national accounts. The reporting units are non-banking financial institution in Slovakia.

Further adjustments made to the data: A more detailed description is in Chapter 4

**Name of data source: Foreign Trade Statistics**

Organisation collecting the data, and purposes for which it is collected: Statistical Office of the Slovak Republic and Financial Administration of the Slovak Republic; Data are used for compilation of Foreign Trade Statistics and National Accounts

Periodicity:  
Monthly

Variables used for QNA:  
Form, observation value and type of trade for products according to combined nomenclature

Further adjustments made to the data:  
Adjustments are given in more detail in Chapter 5

**Name of data source: Statistics of the motor vehicles**

Organisation collecting the data, and purposes for which it is collected: Ministry of Interior of the SR (webpage); Data serve for the statistics of the MI SR, as well as for the calculation of the final consumption of households

Periodicity: Quarterly

Variables used for QNA: Data on the number of registrations of the new and individually imported cars broken down by type and the region of Slovakia and the total for the entire Slovak Republic

Further adjustments made to the data:

**Name of data source: SLUZ (PB) 1-04 - Balance of Payments**

Organisation collecting the data, and purposes for which it is collected: National Bank of Slovakia; For the compilation of balance of payments statistics (ECB) and the compilation of national accounts

Periodicity: monthly

Variables used for QNA: International transactions in services, revenues and current transfers

Further adjustments made to the data: A more detailed description is in Chapter 4

**Name of data source: BIL 2-12 - Monthly profit and loss statement**

Organisation collecting the data, and purposes for which it is collected:

Periodicity: monthly

Variables used for QNA: Variables for Output  
- Fees and commissions received  
- Trading of financial assets and liabilities

Further adjustments made to the data:

**Name of data source: VUP 1-04 - Survey on selected data on individual financial statements of insurance companies**

Organisation collecting the data, and purposes for which it is collected:

Periodicity: quarterly

Variables used for QNA: Variables for Output  
- Reinsurers share

Further adjustments made to the data:

**Name of data source: Fin 1-12 Financial statement of revenue, expenditure and financial operations**

Organisation collecting the data, and purposes for which it is collected: DataCentrum (for municipalities), The State Treasury (for all other subjects of general government). Purpose: compilation of statistical data of general government

Periodicity: monthly

Variables used for QNA: Revenues and expenditure of general government subjects

Further adjustments made to the data: Removing of EU flows (for D.39)

**Name of data source: Fin 2-04 Financial statement on selected data from A and P of general government subjects**

Organisation collecting the data, and purposes for which it is collected: DataCentrum (for municipalities), The State Treasury (for all other subjects of general government). Purpose: compilation of statistical data of general government

Periodicity: Quarterly

Variables used for QNA: Accrued income and expenditures of general government

Further adjustments made to the data:
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<b>Name of data source: VZP – Overview of income, expenses and management of health insurance company</b>
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Organisation collecting the data, and purposes for which it is collected: Ministry of Finance of the Slovak Republic.
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Purpose: compilation of statistical data of general government
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Periodicity: Quarterly
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Variables used for QNA: Payment for administration of public health insurance to private health insurance companies
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Further adjustments made to the data: none
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## **ANNEX 1 – THE LIST OF ABBREVIATIONS**

- ESA 2010 – The European System Accounts 2010
- SO SR (ŠÚ SR) – The Statistical Office of the Slovak Republic
- GDP – Gross domestic product
- NBS – National Bank of Slovakia
- MF SR – Ministry of Finance of the Slovak Republic
- ÚPSVaR – The Central Office of Labour, Social Affairs and Family
- HBS – Household budget survey
- SK NACE – Statistical classification economic activities
- COICOP – Classification of individual consumption by purpose
- COFOG – Classification of the Functions of Government
- EKRK – Economic classification of the budget classification
- GFCF – Gross fixed capital formation
- GGFCE – General government final consumption expenditure
- HFCE – Household final consumption expenditure
- NPISH – Non-profit institutions serving households
- NPISH FCE – NPISH final consumption expenditure
- R&D – Research & Development
- FISIM – Financial intermediation services indirectly measured
- FTS – Foreign trade statistics
- BoP – Balance of payments
- VAT – value-added tax
- DIČ – tax identification number
- IČO – Identification number
- EMCDDA – European Monitoring Centre for Drugs and Drug Addiction
- LFS – Labor force sample survey
- YoY – year over year
- SUTs – Supply and Use tables
- IOTs – Input-output tables
- QNA – Quarterly national Accounts
- ESS – European Statistical System
- EDP – The Excessive deficit procedure
- STATdat – SO SR database which contains reports (tables) of economic and socio-economic development indicators
- DATAcube – SO SR database which contains multidimensional tables (cubes) for indicators of economic and socio-economic development
- KATP – Classification of organizations by number of employees
- CMFB – Committee on Monetary, Financial and Balance

