



STATISTIČNI URAD REPUBLIKE SLOVENIJE  
STATISTICAL OFFICE OF THE REPUBLIC OF SLOVENIA

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## REGIONAL ACCOUNTS INVENTORY

No 14 | Ljubljana, 2011





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3 NATIONAL ACCOUNTS

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# FOREWORD

Regional accounts are part of the European System of Accounts (ESA 95). With national accounts they share the concepts of calculating statistical indicators which are used by competent organizations to assess the economic situation and to make appropriate decisions.

Regional accounts data support decision-making at the level of regional policy, the purpose of which is to reduce social and economic disparities among the EU Member States and their regions.

Welfare and economic development potential of regions can vary; therefore, well-balanced regional policy, the basis of which is the territorial regulation, is necessary for reducing the disparities.

In the EU the territorial breakdown is regulated by a Common Classification of Territorial Units for Statistics – NUTS. Slovenia appears at the NUTS 1 level as a whole country, at the NUTS 2 level the national territory is divided into cohesion regions Vzhodna Slovenija and Zahodna Slovenija, which are at the NUTS 3 level further broken down into 12 statistical regions.

The objectives of regional development, for which a large share of the EU budget is intended, are captured in the notion of cohesion policy, the principle of which is that the reduction of regional disparities is positive for all regions. Resources from EU funds, intended for these objectives, are allocated to individual regions on the basis of regional accounts data.

This publication is divided into five chapters. Chapter 1 is intended for general information related to the compilation of regional accounts. Chapter 2 contains the calculation of regional GDP which is from the aspect of absorption of EU funds the most important regional indicator because the size of regional GDP (at the NUTS 2 level) determines the distribution of the majority of the resources from these funds. Chapter 3 is dedicated to the presentation of the methodology of the calculation of gross fixed capital formation by region and Chapter 4 to compensation of employees by region. Chapter 5 represents households' accounts by region - the only economic sector that is addressed as a whole by regional accounts.

The methodology in this publication is intended for better understanding of regional accounts for experts as well for the lay public.

June 2011



Irena Križman

Director General

Statistical Office of the Republic of Slovenia



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## ABBREVIATIONS

AJPES	Agency of the Republic of Slovenia for Public Legal Records and Related Services
BRS	Business Register of Slovenia
CPR	Central Population Register
DURS	Tax Administration of the Republic of Slovenia
ESA 1995	European System of Accounts 1995
EU	European Union
EUR	euro
EU-SILC	Survey on Income and Living Conditions
FISIM	Financial intermediation services indirectly measured
GDP	Gross domestic product
GFCF	Gross fixed capital formation
INV-1, INV-2	Statistical survey on gross investments
KAU	Kind of activity unit
LKAU	Local kind of activity unit
MDDSZ	Ministry of Labour, Family and Social Affairs
MNZ	Ministry of the Interior
NACE	General Industrial Classification of Economic Activities within the European Union
NPISH	Non-profit institutions serving households
NUTS	Classification of Territorial Units for Statistics
PIN	Personal identification number
SKD	Standard Classification of Activities
SKIS	Standard Classification of Institutional Sectors
SKTE	Standard Classification of Territorial Units
SRE	Statistical Register of Employment
SURS	Statistical Office of the Republic of Slovenia
ZAP/M	Statistical Survey on Earnings
ZPIZ	Pension and Disability Insurance Institute
ZRSZ	Employment Service of Slovenia



# CHAPTER 1

## GENERAL INFORMATION

### 1.1 Introduction

Regional accounts are a regional specification of the corresponding accounts for the entire economy, i.e. national accounts. In addition to the same statistical concepts and definitions, regional and national accounts also have largely common data sources and completely consistent end results. The accounts are prepared in accordance with the European System of Accounts 1995 (ESA 1995).

In compiling regional accounts, each region is treated as a separate economic entity. A region is a smaller economic entity than the whole country; therefore, it requires additional and more detailed data sources. This means that the results of the calculation of regional accounts can provide additional information in the production of national accounts. In general, it is considered that regional accounts data are somewhat less reliable than national accounts data since detailed data sources are for various reasons often of lower quality. On the other hand, some methods of compiling regional accounts allow the use of national accounts data which are usually based on various data sources at a much more detailed level than the level of the data sources used in compiling regional accounts.

The relationship of regional and national accounts is therefore complex. Regional accounts are an autonomous and for the most part independent system of calculating the desired indicators whose final results are generally adjusted to the results of the national accounts only in the most recent phase of compilation.

The purpose of compiling regional accounts is to provide information to support decision making in the field of regional policy which contributes to more balanced development of the country. The aim of the calculation is to obtain high-quality regional data which are methodologically coordinated by the European Union (EU) and lead to better cohesion and regional policy.

The development of regional accounts in Slovenia took place in several steps:

- The first regional accounts data were published by the Statistical Office of the Republic of Slovenia (SURS) in 1996. They involved the data on gross domestic product (GDP) and gross value added by twelve statistical regions.
- From 2000 to 2005, successive amendments to the Slovenian and EU legislation followed in the field of regional division of territory which has set the legal framework of regional accounts. Those amendments had no direct impact on SURS's commitments concerning regional accounts at the time of adoption. The changes were:
  - In 2000 a regulation was adopted on a standard classification of territorial units (Official Journal of the Republic of Slovenia No. 28/2000). The Standard Classification of Territorial Units (SKTE) thus become a mandatory national standard for recording, collecting, processing, analysing, publishing and disseminating statistical data according to the territorial division of the Republic of Slovenia. The first five levels of classification of the territory were taken along the lines of the Classification of Territorial Units for Statistics (NUTS) in the European Union.
  - In 2003 a Regulation on a Common Classification of Territorial Units for Statistics NUTS (Regulation of the European Parliament and of the Council No. 1059/2003) was adopted which governed the territorial breakdown at three levels (NUTS 1, NUTS 2 and NUTS 3) in the then fifteen EU Member States. The NUTS classification also obtained legal status.
  - Due to the entry of new members into the EU in 2005 an amended Regulation on a Classification of Territorial Units for Statistics NUTS (Regulation of the European Parliament and of the Council No. 1888/2005) was adopted. With the accession of Slovenia to the EU the NUTS classification has become compulsory for our country. Slovenia at the levels of NUTS 1 and NUTS 2 appeared as a whole while at the third level its territory was divided into twelve statistical regions.

- A new amendment to the Regulation on a Common Classification of Territorial Units for Statistics NUTS in 2007 (Regulation of the European Parliament and of the Council No. 105/2007) had a direct impact on SURS's obligations. By changing the NUTS 2 level the national territory was divided into two cohesion regions: Vzhodna Slovenija and Zahodna Slovenija. Thus Slovenia had to provide the required statistical data at the NUTS 2 level. That same year a new regulation on SKTE was adopted (Official Journal of the Republic of Slovenia No. 9/2007).
- In 2008 the Commission Regulation No. 11/2008 set out the time series and the first year of the series that has to be provided. That same year, SURS published at the NUTS 2 level data on regional GDP and three new types of regional data: gross fixed capital formation (GFCF), compensation of employees and household accounts.
- In 2010, the publication of data on regional household accounts was extended to the level of NUTS 3. Publications in the field of regional accounts in 2010 with lengths of time series that are available are shown in Table 1.1.

**Table 1.1 Regional accounts in Slovenia, 2010**

Regional data by type	Time series length	Level of publishing
Gross domestic product	1995–2008	NUTS 2, NUTS 3
Gross value added by activity	1996–2008	NUTS 2, NUTS 3
Gross fixed capital formation	1999–2008	NUTS 2
Compensation of employees	1999–2008	NUTS 2
Household accounts	1999–2008	NUTS 2, NUTS 3

The compilation of regional accounts at SURS is the responsibility of the National Accounts Department. At the end of 2010 the department had twenty employees, three of whom prepared regional accounts. The department is not divided into smaller organizational units and regional accounts are not a separate organizational unit. One of the three employees who deal with regional accounts is preparing data on regional GDP and compensation of employees, one is preparing data on regional household accounts and one is preparing data on regional gross fixed capital formation.

Regional accounts are due to conceptual and practical problems of calculation restricted to the listed areas and therefore are not compiled for the entire system as it applies to national accounts. This publication describes in detail the sources and methods used in Slovenia for the compilation of regional accounts. Chapter 2 describes the methodology of compiling regional gross domestic product and gross value added by industry, Chapter 3 the methodology of regional gross fixed capital formation, Chapter 4 the methodology of regional compensation of employees and Chapter 5 the methodology of compiling regional household accounts. The descriptions refer to 2006 (gross domestic product and gross value added) and 2007 (remaining areas). The methodology used in other years does not deviate significantly from the methodology described in this publication.

The description of sources and methods for compiling national accounts in this publication is restricted to those parts which are necessary for the interpretation of the calculation of regional indicators. The methodology for compiling national accounts is described in detail in the publication "Gross National Income Inventory" which is available on SURS's website: [http://www.stat.si/eng/tema\\_ekonomsko\\_nacionalni\\_bnd.asp](http://www.stat.si/eng/tema_ekonomsko_nacionalni_bnd.asp).

## 1.2 Methods of regionalization

For the compilation of regional accounts various data sources at various levels of detail are used. The level of detail is defined by the level of the smallest statistical unit for which data sources for the compilation of regional accounts are available. Statistical units whose level of detail is the most suitable for the compilation of regional accounts are local kind of activity units (LKAU) and, in the case of household accounts, the resident.

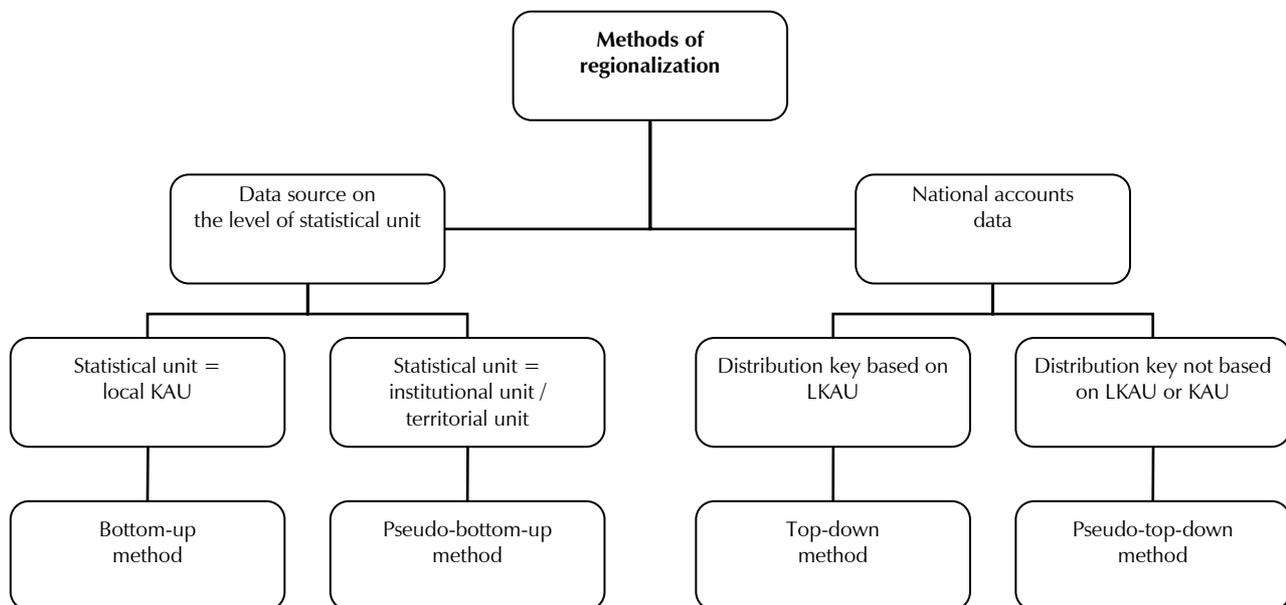
The LKAU is the part of a kind of activity unit (KAU) which corresponds to a local unit. The KAU groups all the parts of an institutional unit in its capacity as producer contributing to the performance of an activity at class level (4 digits) of the SKD 2002 and corresponds to one or more operational subdivisions of the institutional unit. LKAU is situated at a geographically identified location and may correspond to an institutional unit or a part thereof; on the other hand, it can never belong to two different institutional units.

In ideal case all data sources are available at the level of LKAU (or residents in households account), but in practice just a part of data sources are available at the mentioned level, others are available at higher (less detailed) levels. (Un)availability of data sources has a significant impact on the selection of the method of regionalization.

In general, regionalization is possible according to three kinds of methods: bottom-up methods, top-down methods and combined methods.

The bottom-up methods involve the use of information on units that are residents in the region and the summing-up of these information until the regional value of the aggregate is established. The regional values must add up to the corresponding national value. The top-down methods (the methods are called top-down because the aggregate is allocated to a region and not to a single unit) involve the distribution of a national figure among regions, without attempting to single out resident units, by means of a distribution key which reflects as closely as possible the variable to be estimated. Mixed methods, combined from both previously mentioned methods, are also often used. Besides the listed methods, also a variety of methods exist which are called "pseudo methods" - pseudo-bottom-up method and pseudo-top-down method. The first one is used when data sources are available only at higher levels (KAU, institutional units, territorial units, etc.) and no availability of data at the level of LKAU and/or resident while the second one is used when the distribution key is not based on data of LKAU or KAU. Chart 1.1 shows a many times decisive influence of availability of data sources on the method of regionalization.

**Chart 1.1 Methods of regionalization from the view of availability of data sources**



The advantage of bottom-up methods is in the measurement of variable directly at the level of unit; however after adding up the results of regional accounts mainly differ from the results of national accounts and should be further reconciled. The advantage of top-down methods is in the coherence of the results of regional and national accounts and in lower costs of compilation, but the results are obtained indirectly through distribution keys which more or less accurately reflect the variable to be estimated.

A final decision on the choice of methods depends not only on the availability of data sources, but also on the suitability of each method for a particular area of regional accounts. In general, bottom-up methods are preferred because of the direct measurement of variable at the unit level, but in practice most often a combination of different methods is used.

In the Slovenian regional accounts all the methods described above are used. In compiling the gross domestic product the top-down method is the predominant while in other areas it is the bottom-up method. In all cases, the predominant method is complemented by other methods, the choice of which is mostly determined by the availability of data sources.

### 1.3 Regional breakdown

Regional breakdown in Slovenia is covered by two classifications:

- Common Classification of Territorial Units for Statistics – NUTS and
- Standard Classification of Territorial Units – SKTE.

NUTS is the basis for regional breakdown of Slovenia and is therefore the fundamental classification of regional accounts after Slovenia joined the EU. NUTS is defined as a territorial classification for the compilation of regional accounts and divides the territory of EU Member States into three hierarchical levels – NUTS 1, NUTS 2 and NUTS 3. Larger countries are broken down already at the level of NUTS 1 while Slovenia at this level appears as a single region. At the NUTS 2 level Slovenia is divided into two regions, which are at the NUTS 3 level further broken down into 12 regions (Table 1.2). Regions at the NUTS 2 level are called cohesion regions and regions at the NUTS 3 level statistical regions.

Lower levels of NUTS are called local administrative units, but are not the subject of the NUTS regulation. In Slovenia, the first level of local administrative units is represented by the administrative units and the second level by the municipalities.

**Table 1.2 Classification NUTS 2006, Slovenia**

Code	NUTS 1	NUTS 2	NUTS 3
SI0	Slovenia		
SI01		Vzhodna Slovenija	
SI011			Pomurska
SI012			Podravska
SI013			Koroška
SI014			Savinjska
SI015			Zasavska
SI016			Spodnjeposavska
SI017			Jugovzhodna Slovenija
SI018			Notranjsko-kraška
SI02		Zahodna Slovenija	
SI021			Osrednjeslovenska
SI022			Gorenjska
SI023			Goriška
SI024			Obalno-kraška

Lower levels of the territorial breakdown of national territory are regulated by the SKTE (before Slovenia's accession to the EU the SKTE regulated national territory at all levels). The first three levels of the SKTE are in line with the NUTS levels while from the fourth level on the territory of Slovenia is further broken down into five levels:

- level SKTE 4: administrative units,
- level SKTE 5: municipalities,
- level SKTE 6: local communities, village communities and district communities,
- level SKTE 7: settlements,
- level SKTE 8: spatial districts.

The SKTE establishes levels of territorial breakdown and ensures that they match which is especially important in the aggregation of individual data. NUTS contains some minor discrepancies in the overlapping level (municipalities / statistical regions), but such deviations are within the cohesion regions and do not affect the results of the calculations at the level of cohesion regions.

The extent of statistical and cohesion regions has changed in 2000 (Regulation on SKTE, Official Journal of the Republic of Slovenia No. 28/2000) when six municipalities were excluded from the Osrednjeslovenska statistical region and merged with the Jugovzhodna Slovenija statistical region. As the aforementioned statistical regions are in different cohesion regions, the cohesion region Vzhodna Slovenija increased while the cohesion region Zahodna Slovenija decreased by municipalities of Kočevje, Ribnica, Sodražica, Loški potok, Kostel and Osilnica.

## 1.4 Other classifications

Besides the NUTS classification, two classifications are also important for the regional accounts compilation<sup>1</sup>:

- the Standard Classification of Activities (SKD): it is an obligatory national standard used for determination of activities and for classifying business entities and their parts for the needs of official and other administrative data sources (registers, databases, etc.), and for the needs of statistics and analysis at the national and international level. It is harmonized with the Classification of Economic Activities in the European Union (NACE). For regional accounts compilation as presented in this publication the SKD 2002 version is used (harmonized with NACE Rev. 1);
- the Standard Classification of Institutional Sectors (SKIS): according to SKIS, institutional sectors with similar economic behaviour are grouped into the following sectors: non-financial corporations (S.11), financial corporations (S.12), general government (S.13), households (S.14) and non-profit institutions serving households (S.15). This classification is used primarily in cases where national accounts data serve as a data source for regional accounts compilation.

## 1.5 Publication practice and revision policy

The reference period for all regional accounts data is the calendar year. Data are published not later than 24 months after the reference year and are available to all users simultaneously. As a rule, national publishing takes place before or at least at the same day as data are transmitted to Eurostat.

Data are published on SURS's website ([www.stat.si](http://www.stat.si)) in Slovene and English languages in the following publications:

- in the First Release which contains the most important data and a short comment,
- in the SI-STAT database where all regional accounts data are available,
- data on GDP and gross value added by activities are available also in Excel files.

All publications for individual areas of regional accounts are published on the same day.

Revised data are published within regular publishing. Regional accounts data are always consistent with the latest published national accounts data as all national accounts revisions are considered in regional accounts compilation. Regional accounts data are therefore revised not only due to changes in regional accounts data sources and methods but also due to national accounts revisions.

Data relating to years up to and including 2006 are converted by using the fixed exchanged rate 1 EUR = 239.64 Slovenian tolar.

<sup>1</sup> More at: <http://www.stat.si/eng/klasje/klasje.asp>.



# CHAPTER 2

## GROSS DOMESTIC PRODUCT

### 2.1 Introduction

In Slovenian regional accounts only the top down approach is used to compile regional gross domestic product (GDP) or gross value added. National accounts' value added (or rather its income components) of activities is allocated to regions by distribution keys. However, by contents the methodology could be partly viewed as bottom-up as well (see Chapter 2.5.1 for more details). Because of the top-down approach no extrapolations or adjustments to national accounts data are needed.

Slovenia is divided into the following NUTS territorial units:

- NUTS 1: the whole country,
- NUTS 2: two cohesion regions,
- NUTS 3: twelve statistical regions.

The compilation of regional gross value added is done at the NUTS 3 level. Data at the NUTS 2 level are obtained by a simple aggregation of NUTS 3 data and the NUTS 1 level already refers to the whole country. No calculations are made for the levels below NUTS 3.

Main data sources for the compilation of regional gross value added are:

- national accounts' data on gross value added and its income components as elements to be regionalized, as methodology is based on the top-down approach;
- wages and salaries, and employment from the statistical survey on earnings and the Statistical Register of Employment as the main data sources for distribution keys with which the national accounts data are regionalized.

Distribution keys for 2006 are 99.5% based on statistical surveys or censuses data (of which 57.4% on closely related indicators and 42.1% on less related indicators) and only 0.5% on administrative data sources.

Regional gross domestic product data are available back to 1995 and regional gross value added data by activities back to 1996. There are no breaks in time series. Regional gross value added is published for 13 activities of the Standard Classification of Activities (SKD 2002).

In the following chapters, first the release and revision policy, the main data sources and the main principles of the regional gross value added compilation are described. This is followed by the most important chapter describing the method used; first its general elements are presented and then its elements that apply to individual activities. The chapter concludes with the self-assessment of the current quality level and discussion of possible future improvements. The methodology described relates to 2006. The methodology used in other years does not differ substantially from the one presented in this publication.

### 2.2 Publication practice and revision policy

#### 2.2.1 Publication practice

New data are released at the latest 24 months after the reference year (for example, 2006 data were published in December 2008). The official release calendar is given for approximately one year in advance with the official release date for the regional gross value added data announced to take place not later than December 31. The actual release usually takes place a little earlier and is confirmed in the week before the release.

Data are made public by a First Release on SURS's website<sup>2</sup>, with a few most important pieces of information and links to more detailed Excel tables<sup>3</sup> and interactive tables in the SI-STAT database<sup>4</sup>. The SI-STAT data portal allows building customized tables by choosing variables, items and table layout. On the other hand, the advantage of Excel tables is that they allow presentation of more detailed data, i.e. larger number of decimal places. All types of releases are made in Slovenian and English languages.

Regional data are published for GDP, gross value added, employment and employees. Gross value added, employment and employees are published for 13 SKD activities:

- A+B Agriculture, hunting, forestry and fishing
- C+D Mining and quarrying, manufacturing
- E Electricity, gas and water supply
- F Construction
- G Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods
- H Hotels and restaurants
- I Transport, storage and communication
- J Financial intermediation
- K Real estate, renting and business activities
- L Public administration and defence; compulsory social security
- M Education
- N Health and social work
- O+P Other community, social and personal services activities, private households with employed persons.

Due to their smaller national gross value added, data for activities B Fishing, C Mining and quarrying, and P Private households with employed persons are unreliable and therefore joined to other activities (fishing to agriculture, hunting and forestry; mining and quarrying to manufacturing; private household with employed persons to other community, social and personal services activities).

The regional breakdown is 12 NUTS 3 regions (statistical regions) and two NUTS 2 regions (cohesion regions). Data for both levels are published in the same table.

Data are presented in the following way:

- regional GDP is presented in millions of euros, regional structure (where Slovenia = 100), per capita expressed in euros, and in per capita expressed in indices (where Slovenia = 100);
- regional gross value added by activities is presented in millions of euros, regional structure (where Slovenia = 100) and activity structure (where region = 100);
- employment and employees by regions and activities are presented by the number of persons.

Because the old Slovenian currency, Slovenian tolar, was replaced with euro in 2007, an exchange rate has to be used for the conversion of data before 2007. Actually two exchange rates are used:

- "fixed exchange rate 2007" is mostly used, and means that a single, fixed exchange rate is used for all years (239.64 Slovenian tolar for one euro). The advantage of this exchange rate is that all relative numbers in euros remain the same as they were in Slovenian tolar;

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<sup>2</sup> [http://www.stat.si/eng/tema\\_ekonomsko\\_nacionalni.asp](http://www.stat.si/eng/tema_ekonomsko_nacionalni.asp).

<sup>3</sup> [http://www.stat.si/eng/tema\\_ekonomsko\\_nacionalni\\_bdpreg.asp](http://www.stat.si/eng/tema_ekonomsko_nacionalni_bdpreg.asp).

<sup>4</sup> <http://www.stat.si/pxweb/Database/Economy/Economy.asp>.

- "current exchange rate" is only used to convert GDP per capita figures. The advantage of this exchange rate is that it makes international comparisons possible.

Besides above mentioned, Slovenian regional GDP data appear also on the Eurostat's website, and in SURS's publications Statistical Yearbook<sup>5</sup> and Slovene Regions in Figures<sup>6</sup>, both of which are bilingual, in Slovenian and English languages.

## 2.2.2 Revision policy

Data are revised due to changes in data sources or compilation methods. Revisions due to major national accounts revisions are implemented in regional accounts before the next data release. Minor revisions in time series are carried out and published in each compilation round. Revised data are published together with the first releases at the end of the year unless there is a special need to publish them earlier.

All data currently published (1995-2008) are comparable over time. There are no breaks in time series as all backward revisions have been made in the whole time series. There is no special method used for the backward revisions. Data obtained by backward revisions are actually anew, i.e. again, calculated data by using revised national accounts data and the same distribution keys for regionalization, or also updated, changed or altogether new distribution keys.

## 2.3 Main data sources

### 2.3.1 Introduction

Main data sources for the compilation of regional gross value added are national accounts data, the Business Register of Slovenia, the Statistical Register of Employment and the statistical survey on earnings. They are all briefly described in the following chapters. The description of data sources used only for specific activities is given in chapters where methodology for these activities is treated.

### 2.3.2 National accounts data

The basis of regional accounts methodology is to regionalize activities' gross value added and its income components taken from national accounts, by distribution keys. All activities available at national accounts are taken and regionalized, that is currently 140 activities at different levels of the SKD (Chapter 2.6).

### 2.3.3 Business Register of Slovenia

The Business Register of Slovenia (BRS) is an administrative and statistical data source at the same time. It is kept by the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES). Business entities are entered in the Business Register on the basis of registration at the register bodies (courts, ministries, chambers, etc.) or are created and entered into the Business Register on the basis of law (government bodies). Business entities are not allowed to start operating without prior registration in the Business Register.

The Business Register therefore covers all legal organizational forms of business entities, i.e. legal and natural persons and their constituent parts, performing any type of profit or non profit activities on the territory of Slovenia, except private farmers.

In the Business Register the following attributes of each business entity important for regional gross value added estimation are available:

- a 10 digit registration code: the first seven digits represent the business entity, while the remaining three digits are devoted to its establishments. Once assigned by AJPES, this registration code becomes an identification code, obligatorily used in all administrative registers and statistical surveys in Slovenia;

<sup>5</sup> [http://www.stat.si/eng/pub\\_letopis\\_prva.asp](http://www.stat.si/eng/pub_letopis_prva.asp).

<sup>6</sup> [http://www.stat.si/eng/pub\\_regije.asp](http://www.stat.si/eng/pub_regije.asp).

- a precise geographical location code (x and y map coordinates of the national coordinate system), the statistical region code, the community code and other territorial unit codes according to the National Register of Territorial Units;
- the national classification of activities code compatible with the NACE classification.

### **2.3.4 Statistical Register of Employment**

The major part of distribution keys for regionalizing national accounts' gross value added are built from data of the Statistical Register of Employment (SRE, Slovenian SRDAP) and the statistical survey on earnings (Chapter 2.3.5).

The Statistical Register of Employment is the most comprehensive geocoded register of employees and self-employed at the level of individual person. It contains the following data important for regional gross value added estimation:

- location (a geocode) where a person is living (permanent address),
- location (a geocode) of the establishment where a person is working,
- SKD code of the establishment where a person is working,
- uniform identification code of the establishment where a person is working.

The register covers persons who have compulsory social insurance or are employed or self-employed on the territory of Slovenia and are at least 15 years old and not retired. Employment can be temporary or permanent, full time or part time. It also covers persons temporarily out of work due to sickness or other reasons if social security contributions for them are paid. Persons working under copyright contracts, contracts for work/service, unpaid family members, self-employed persons who do not pay social security contributions and Slovenian citizens working in Slovenian enterprises, on construction sites, etc., abroad are not covered.

The register is updated monthly with data from M forms, i.e. Registration of Data for the Pension, Disability and Health Insurance, Parental Care Insurance, Insurance Against Unemployment, and Employment (data are provided by the Health Insurance Institute of Slovenia, the Pension and Disability Insurance Institute and the Employment Service of Slovenia), and data from other databases (the Central Population Register, the Business Register of Slovenia).

### **2.3.5 Statistical survey on earnings**

The statistical survey on earnings is the other crucial data source for building distribution keys. It is conducted monthly and provides an insight into the amount of average monthly earnings and their changes in Slovenia. These data are an important source for wage policy-making, for collective negotiations and for calculating various social receipts. The source of data on earnings is the Monthly Report on Earnings by Legal Persons. Data for this report are collected every month by AJ PES and sent to SURS for statistical processing.

Observation units are legal persons of public and private sector or their units (establishments) registered for performing activity in Slovenia.

The survey covers persons (their earnings) in paid employment who signed employment contracts; work under copyright contract and work under contract for work/service are not taken into consideration. All persons in paid employment, employed for fixed or unspecified period of time, irrespective of whether they work full time or part time, are taken into consideration. Individual private entrepreneurs and persons employed by them, own account workers, workers in employment promotion schemes, posted workers and farmers are not covered.

## **2.4 General principles**

### **2.4.1 Use of benchmarks and extrapolations**

Benchmarks and extrapolations are not used while compiling regional gross value added. All data sources are available in time for the timely release of regional GDP data. However, some data sources for building distribution keys for agriculture have benchmarks of their own.

## 2.4.2 Treatment of ancillary activities

There is no separate treatment of ancillary activities. Ancillary activities including headquarters are allocated to the same activity as the principal activity of the institutional unit they belong to. If ancillary activity is located in another region, it is treated as a separate local unit.

## 2.4.3 Treatment of the extra-regio

Extra-regio gross value added is not estimated because of its minor importance in Slovenia. Slovenia does not have any large presence of economic territory abroad or in international waters (for instance military or scientific bases, deposits of oil, natural gas, etc.).

## 2.4.4 Approach to exhaustiveness

Non-exhaustiveness is dealt with only at the national level. Adjustments that arise from non-exhaustiveness and are taken over from national accounts are not treated separately from the non-adjusted figures; therefore only the adjusted figures or exhaustive figures are used. This actually means that adjustments are allocated to regions proportionally to the non-adjusted figures.

## 2.4.5 Calculation of financial intermediation services indirectly measured by user industries

Financial intermediation services indirectly measured (FISIM) are calculated and attributed to industries in national accounts. Only national accounts' gross value added which already incorporates FISIM is regionalized; this means that FISIM are actually allocated to regions proportionally to gross value added. The new method for the FISIM allocation has already been fully implemented for all years (1995-2008).

## 2.4.6 Adjustments for commuting

No adjustments for commuting are needed because all distribution keys with which national values are regionalized are based on the place of production. For instance, in the case of employment as a distribution key, the place of work, and not of residence, is taken into account.

## 2.4.7 Transition from gross value added to gross domestic product

In order to obtain regional GDP at market prices, taxes on products are added to and subsidies on products are deducted from gross value added at basic prices. Taxes and subsidies on products are allocated to regions proportionally to gross value added..

## 2.5 General method

### 2.5.1 Introduction

Regional gross value added for an activity is obtained by regionalizing national gross value added for the respective activity by distribution keys, which are wages and salaries, employees, and some other distribution keys for special cases. To be more specific, regionalized is actually not the activity's gross value added directly, but its income components obtained from national accounts instead. By summing up these regionalized income components the regional gross values added are obtained.

The method used is always top-down from the aspect of calculation as national values are always regionalized by distribution keys. However, one could regard closely related indicators of the top-down methods, as shown in the regional gross value added compilation table (Table 2.2), as grossed up bottom-up data as well because the income components (which are to be regionalized) and the indicators (distribution keys) are of similar substance: compensation of employees (an income component from national accounts) is regionalized by wages and salaries (distribution key made from data of the statistical survey on earnings and the Statistical Register of Employment). Gross value added estimated by the bottom-up method, if the calculation had been carried out this way, would amount to EUR 15,593 million or 57.4% of the total national gross value added. Table 2.2 at the end of this Chapter shows how regional gross value added at the NUTS 3 level is compiled by activities, methods used and distribution keys. In order

to keep the Table in manageable size, only 16 activities are shown even though the compilation is actually done for 140 activities. In addition, only top-down methods are shown in detail as the compilation is entirely based on the top down approach.

### **2.5.2 Income components**

The income components suitable for regionalization are created by combining the income components available from national accounts. After analyzing available distribution keys and national accounts data, four specific income components were created; they are now used as the elements for regionalization by distribution keys for all activities. The four income components are:

- A. compensation of employees working at legal units, i.e. at non-financial and financial corporations, governmental institutions and non profit institutions serving households (NPISH). In 2006, this income component's share amounted to 54.1% of the total national gross value added;
- B. compensation of employees working at unincorporated enterprises. In 2006, this income component amounted to 3.5% of the total national gross value added;
- C. gross operating surplus combined with net other taxes on production (other taxes on production less other subsidies on production). Gross operating surplus is taken as a whole, and not operating surplus and consumption of fixed capital separately. The value of net other taxes on production is so small that no special distribution key is used, but simply its value is added to gross operating surplus and regionalized as a whole. In 2006, this income component amounted to 31.3% of the total national gross value added;
- D. gross mixed income combined with net other taxes on production (other taxes on production less other subsidies on production). Here, too, the value of net other taxes on production is so small that no special distribution key is used, but simply its value is added to gross mixed income and regionalized as a whole. In 2006, this income component amounted to 11.2% of the total national gross value added.

After regionalizing the above mentioned income components the regional gross value added of an activity is obtained by simply adding up all the four regionalized income components. For each activity the total of the regional gross values added remains the same as the national value from national accounts and no grossing up is needed.

There are 140 national accounts' activities that are available for regionalization. For each activity four income components are created. Consequently, altogether 560 different income components are regionalized by distribution keys (140 activities times four income components).

### **2.5.3 Distribution keys**

#### **2.5.3.1 Primary keys**

For each income component the most appropriate distribution key available is constructed and used. For the majority of activities the so called primary keys are used and for some activities special keys have been constructed (Chapter 2.5.3.2).

Primary keys are:

1. wages and salaries of employees at legal units: they are used as a distribution key for income components A (compensation of employees working at legal units) and C (gross operating surplus combined with net other taxes on production). This key could be referred to as weighted number of employees at legal units as well because it is mathematically obtained by multiplying the number of employees by the average wage index in the same region;
2. weighted number of employees at households: it is used as a distribution key for the income component B (compensation of employees working at unincorporated enterprises). Weights are average wages and salaries at legal units in the same region. Weighting with average wages and salaries at households would be more appropriate, of course, but these data are not available. However, the weighted number is still considered a better distribution key than the un-weighted;
3. weighted number of the sum of self-employed and employees at households: it is used as a distribution key for the income component D (gross mixed income combined with net other taxes on production). Weights are average

wages and salaries at legal units in the same region because data on wages and salaries at households are not available. However, the weighted number is still considered a better distribution key than the un-weighted.

When SURS started the regional GDP estimation in 2000, only 17 activities from national accounts were available for regionalization. When the number of activities increased to 140, revisions were made which brought about quite large changes in the quantity of data. These changes are improvements in the quality too, because larger number of activities that are available to be regionalized means that more homogeneous technology of production is used in activities and this makes regionalization by distribution keys more accurate. Primary keys are obtained by the so-called layers approach in two steps. The first step is to make strictly symmetrical employment tables by 12 NUTS 3 regions and 140 activities. The sources for these tables are the Statistical Register of Employment and the statistical survey on earnings (Chapter 2.3). There are seven such tables which are also called layers of the central employment matrix:

- 1 farmers
- 2 own-account workers
- 3 individual entrepreneurs
- 4 employees working at households
- 5 employees working at uni-regional legal units which are not covered in layer 6
- 6 employees working at uni-regional legal units
- 7 employees working at multi-regional legal units

Layers 5 and 6 differ in data sources. Layer 6 covers all employees working at uni-regional legal units from the statistical survey on earnings, while layer 5 covers those employees from the Statistical Register of Employment that are not covered by the statistical survey in layer 6.

In the second step, the central employment matrix is weighted by the average wage indices (average for Slovenia = 100) obtained from the statistical survey on earnings thus being transformed into the weighted central employment matrix. The weighted matrix makes better distribution keys for regionalization of gross value added than the central employment matrix because it takes into account not only employees but wages and salaries as well. So there are seven symmetrical tables or layers of the weighted central employment matrix, defined similarly as layers of the central employment matrix. Different income components from national accounts are then regionalized by the best suited combination of these layers. These are primary keys for regionalization, used most of the time, unless a better key is available.

The combinations of layers of the central employment matrix actually used are as follows:

- weighted employees at legal units: they are obtained as the sum of layers 5, 6 and 7, and make the primary key 1 (wages and salaries of employees at legal units);
- weighted employees at households: they are obtained from layer 4 and make the primary key 2 (weighted number of employees at households);
- weighted self-employed and employees at households: they are obtained as the sum of layers 2, 3 and 4, and make the primary key 3 (weighted number of self-employed and employees at households).

Layer 1 (farmers) has not been used up to now because other distribution keys, considered more reliable, are available (Chapter 2.6.1), but is, nevertheless, useful as a reference.

The advantage of this approach, where different distribution keys are used to regionalize different income components of an activity's gross value added, over regionalizing the whole activity's gross value added by a single key is that each key is better suited to that particular component of gross value added so the overall accuracy is improved. Another advantage of the layers approach is that it is also flexible, i.e. capable of creating new distribution keys, by making different combinations of layers, if better suited to new data sources.

### **2.5.3.2 Special keys**

For some activities the primary keys are not satisfactory enough so special distribution keys for regionalizing national accounts' income components were developed instead. This relates to the following activities: agriculture and hunting, forestry; production and distribution of electricity; and letting of own property. Special keys are described in chapters discussing activities where they are used (2.6.1, 2.6.2, 2.6.3 and 2.6.4).

## **2.6 Methods applied to individual activities**

### **2.6.1 01 Agriculture, hunting and related service activities**

For the activity 01 Agriculture, hunting and related service activities a special distribution key is used to regionalize the income components produced at unincorporated enterprises, that is the income components D (gross mixed income combined with net other taxes on production) and B (compensation of employees working at unincorporated enterprises). The distribution key is made up of the total labour force (employees and self-employed) in annual work units (50% of the key) and the area of agricultural land (another 50% of the key).

The source for the special key is SURS's statistics of agricultural holdings. Statistics is based on exhaustive data from the agricultural census held in 2000 and subsequent sample statistical surveys held in 2003, 2005 and 2007. The next agricultural census was carried out in 2010 and in 2012 all data will be available. Labour force is measured in annual work units in order to take into account part-time and seasonal work. One annual work unit equals one person in full-time employment in agriculture in one year (1,800 hours). Total labour force in agriculture covers salaried and non-salaried labour force.

Primary keys are used for the income components produced at legal units: the key 1 (wages and salaries of employees at legal units) is used for the regionalization of the income components A (compensation of employees working at legal units) and C (gross operating surplus combined with net other taxes on production).

For the activity of agriculture, hunting and related service activities, regional gross value added is compiled for five activities (01.1–01.5). Total regional value for individual activity is obtained by adding up all regionalized income components, compiled both by the special and primary keys.

### **2.6.2 02 Forestry, logging and related service activities**

For the activity 02 Forestry, logging and related service activities a special distribution key made up of the combination of the forest area (50% of the key) and of the volume of the cut-down trees (another 50% of the key) is constructed to regionalize its gross value added. In order to keep the method uniform throughout all activities and for easier future potential improvements of the parts of the gross value added, all four income components are regionalized by this key and then summed up to obtain regional gross value added. The compilation is done for the whole activity 02. The source of data on forest area and volume of cut-down trees is the Slovenian Forest Service. Each year it measures 1/10 of the total forest area for various variables. In this 1/10 of the total area, area itself is measured in total but the volume of the cut-down trees is measured as a sample. This sample is taken from a number of fixed planes (each time the same planes are measured) that occupy about 1/200 of the researched area.

### **2.6.3 E Electricity, gas and water supply**

For the activity 40.1 Production and distribution of electricity a special distribution key is used to regionalize the income component C (gross operating surplus with net other taxes on production). The key is made up of the combination of electricity production in megawatts and the primary key 1 (wages and salaries of employees at legal units) weighted with gross value added in the activity 40.11 Production of electricity and in the rest of the activity 40.1. This special key replaces the primary key 1 alone because of the high proportion of fixed capital in this activity, which requires indicators other than only wages and salaries.

The source of data on the electricity production in megawatts is SURS's energy statistics. Statistics is based on a number of statistical surveys gathering data from all producers of electricity (hydroelectric power stations, steam power stations and the only nuclear power station).

The other three income components of the activity 40.1 are regionalized by primary keys:

- the income component A (compensation of employees working at legal units) is regionalized with the primary key 1 (wages and salaries of employees at legal units);
- the income component B (compensation of employees working at unincorporated enterprises) is regionalized with the primary key 2 (weighted number of employees at households);
- the income component D (gross mixed income combined with net other taxes on production) is regionalized with the primary key 3 (weighted number of self-employed and employees at households).

Finally, gross value added of the rest of the activity E Electricity, gas and water supply is regionalized only by primary keys. In this activity, regional gross value added is compiled at the level of four activities (40.1–40.3, 41).

#### 2.6.4 K Real estate, renting and business activities

For the activity 70.2 Renting of own property a special distribution key is used to regionalize the income component C (gross operating surplus with net other taxes on production). The key is made up from data on useful floor space of dwellings weighted by central heating. Higher proportion of centrally heated dwellings in a region is taken as an indicator of higher quality, i.e. higher rents, and as such used as a corrective of the useful floor space.

Data on the useful floor space and the number of dwellings with central heating are based on results of the census of population, households and dwellings held in 2002, data on construction permits and data on permits for demolishing constructions or changing their purpose. By adding new dwellings to and subtracting the demolished ones from the census data, figures for current periods are obtained. In principle better data, such as actually paid rents in regions, are not used because they are unreliable. There are relatively few rented dwellings as most people live in their own homes (about 90%), most dwellings that are rented do not have their rental contracts registered, and even when they are registered the contracts usually do not contain the true rental amounts.

The other three income components of the activity 70.2 Letting of own property are regionalized using primary keys:

- the income component A (compensation of employees working at legal units) is regionalized with the primary key 1 (wages and salaries of employees at legal units);
- the income component B (compensation of employees working at unincorporated enterprises) is regionalized with the primary key 2 (weighted number of employees at households);
- the income component D (gross mixed income combined with net other taxes on production) is regionalized with the primary key 3 (weighted number of self-employed and employees at households).

Finally, the rest of gross value added of the activity K Real estate, renting and business activities is regionalized using primary keys. In this activity, regional gross value added is compiled at the level of 14 activities (70.1–70.3, 71–73, 74.1–74.8).

#### 2.6.5 Other activities

For all other activities, only primary keys are used to regionalize income components of gross value added. This applies to the following activities:

- B Fishing: regional gross value added is compiled at the level of the whole activity;
- C Mining and quarrying: regional gross value added is compiled at the level of four activities (10, 12, 13, 14);
- D Manufacturing: regional gross value added is compiled at the level of 23 activities (15–37);
- F Construction: regional gross value added is compiled at the level of five activities (45.1–45.5);
- G Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods: regional gross value added is compiled at the level of 19 activities (50.1–50.5, 51.1–51.7, 52.1–52.7);
- H Hotels and restaurants: regional gross value added is compiled at the level of five activities (55.1–55.5);

- I Transport, storage and communication: regional gross value added is compiled at the level of 13 activities (60.1, 60.21–60.24, 61, 62, 63.1–63.4, 64.1, 64.2);
- J Financial intermediation: regional gross value added is compiled at the level of six activities (65.1, 65.21–65.23, 66, 67);
- L Public administration and defence; compulsory social security: regional gross value added is compiled at the level of seven activities (75.1, 75.21–75.25, 75.2);
- M Education: regional gross value added is compiled at the level of eight activities (80.101–80.103, 80.2, 80.3, 80.41, 80.42);
- N Health and social work: regional gross value added is compiled at the level of eight activities (85.11, 85.121, 85.122, 85.13, 85.14, 85.2, 85.31, 85.32);
- O Other community, social and personal services activities: regional gross value added is compiled at the level of 16 activities (90, 91, 92.1–92.6, 92.711, 92.712, 92.72, 93.01–93.05);
- P Private households with employed persons: regional gross value added is compiled at the level of the whole activity.

## 2.7 Regional gross value added at constant prices and regional volume growth rates

Gross value added and GDP at constant prices are calculated only at the national level. Regional gross value added at constant prices or regional volume growth rates are not calculated because regional deflators are not available nor are they envisaged.

Instead of the volume growth rates of the regions' GDP, SURS publishes, from time to time, the difference of a region's GDP per capita index for two different years, usually 1 or about 10 years apart (for instance 2007 index minus 1995 index). This indicator describes the performance of a region by stating how much it improved its position in comparison to the national average in a given period of time. The indicator is calculated only for regions as a whole, and not for their activities. An example is given in Table 2.1 which is taken from the First Release of December 2009. The comment attached to figures in the First Release was as follows: "Measured by the GDP per capita index, compared to 2006 the Obalno-kraška statistical region improved its position in comparison to the Slovenian average the most, by 1.7 percentage points (from 102.3 in 2006 to 104.0 in 2007), and the Zasavska region deteriorated its position the most, by 1.9 percentage points (from 68.1 to 66.1).".

**Table 2.1 GDP per capita index, 2006 and 2007, Slovenia = 100**

	2006	2007	2007 minus 2006
<b>Slovenia</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>
<b>Zahodna Slovenija</b>	<b>120.4</b>	<b>120.4</b>	<b>0.0</b>
Obalno-kraška	102.3	104.0	1.7
Goriška	96.3	96.4	0.1
Gorenjska	84.3	84.7	0.3
Osrednjeslovenska	144.3	143.7	-0.6
<b>Vzhodna Slovenija</b>	<b>82.5</b>	<b>82.4</b>	<b>-0.1</b>
Notranjsko-kraška	74.8	75.4	0.5
Jugovzhodna Slovenija	92.9	93.1	0.2
Spodnjeposavska	80.8	80.2	-0.6
Zasavska	68.1	66.1	-1.9
Savinjska	88.9	87.9	-1.0
Koroška	76.7	76.9	0.2
Podravska	84.2	85.1	0.9
Pomurska	65.7	65.2	-0.5

## 2.8 Quality assessment and improvements

Strengths of Slovenian regional gross value added figures and methodology are in the consistency between the concepts used in national and regional accounts, and in the fact that distribution keys which are based on employees or their wages and salaries are always located by local kind of activity units. The main weakness of the methodology is that it is entirely based on the top-down calculation.

Different income components of regional gross value added are of different quality. The regionalized compensation of employees figures are probably quite good because the distribution key (wages and salaries) is well related to the national value it regionalizes (national accounts' compensation of employees); here the regional comprehensive data (wages and salaries) comprise 74% of the national accounts data (compensation of employees). Other regionalized income components are weaker because there is less connection between distribution keys and national accounts values. The weakest is the quality of the regionalized gross operating surplus because there is no good key for a part of gross operating surplus, for the net operating surplus.

Regional values of an activity are regarded to be of higher quality level if a higher percentage of its gross value added is regionalized by distribution keys based on closely related indicators (as shown in Table 2.2). Regardless, regional values of activities whose national gross value added is small are always regarded to be of low quality (such are activities mining and quarrying, private households with employed persons and fishing). According to these criteria activities are sorted in the following order, from the highest to the lowest quality level of their regionalization:

- M Education
- N Health and social work
- L Public administration and defence; compulsory social security
- H Hotels and restaurants
- D Manufacturing
- G Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods
- O Other community, social and personal services activities
- F Construction
- I Transport, storage and communication
- J Financial intermediation
- K Real estate, renting and business activities
- E Electricity, gas and water supply
- A Agriculture, hunting and forestry
- C Mining and quarrying
- P Private households with employed persons
- B Fishing.

Possible improvements in the quality of the methodology can be directed into analysis whether bottom-up methods or pseudo bottom-up methods could be used to a larger extent. However, bottom-up methods can only serve as a means for checking the results of the existing methods. The prevailing method will still be top-down as there are no sources for actual compiling regional gross value added at the level of local kind of activity unit as there are no accounting statements for local kind of activity units, but only for the whole enterprises.

Table 2.2 Regional gross value added compilation table, 2006, mio EUR

Activities	Bottom-up methods	Top-down methods					Adjustment to national accounts data	Total	
		statistical surveys and censuses		administrative data sources		total			
		closely related indicators	extrapolations, models and less related indicators	closely related indicators	extrapolations, models and less related indicators				
1	2	3	4	5	6 = 2 do 5	7	8 = 6 + 7		
A Agriculture, hunting and forestry									
D.1 at legal persons	-	73			33	106	0	106	
D.1 at unincorporated enterprises	-		4		7	23	0	23	
B.2g+(D.29-D.39) at legal persons	-		1	6	7	20	0	20	
B.3g+(D.29-D.39) at unincorporated enterprises	-		4	397	7	494	0	494	
Gross value added	-	73	424		146	643	0	643	
B Fishing									
D.1 at legal persons	-	2				2	0	2	
D.1 at unincorporated enterprises	-	0				0	0	0	
B.2g+(D.29-D.39) at legal persons	-		1	0		0	0	0	
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	1		1	0	1	
Gross value added	-	3	1			4	0	4	
C Mining and quarrying									
D.1 at legal persons	-	102				102	0	102	
D.1 at unincorporated enterprises	-	2				2	0	2	
B.2g+(D.29-D.39) at legal persons	-		1	26		26	0	26	
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	6		6	0	6	
Gross value added	-	103	31			135	0	135	
D Manufacturing									
D.1 at legal persons	-	3,799				3,799	0	3,799	
D.1 at unincorporated enterprises	-	209				209	0	209	
B.2g+(D.29-D.39) at legal persons	-		1	2,022		2,022	0	2,022	
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	382		382	0	382	
Gross value added	-	4,008	2,404			6,412	0	6,412	
E Electricity, gas and water supply									
D.1 at legal persons	-	292				292	0	292	
D.1 at unincorporated enterprises	-	0				0	0	0	
B.2g+(D.29-D.39) at legal persons	-		1+5	523		523	0	523	
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	3		3	0	3	
Gross value added	-	292	526			818	0	818	

Table 2.2 Regional gross value added compilation table, 2006, mio EUR (continued)

Activities	Bottom-up methods	Top-down methods					Adjustment to national accounts data	Total	
		statistical surveys and censuses		administrative data sources		total			
		closely related indicators	extrapolations, models and less related indicators	closely related indicators	extrapolations, models and less related indicators				
1	2	3	4	5	6 = 2 do 5	7	8 = 6 + 7		
F Construction									
D.1 at legal persons	-	1	874				874	0	874
D.1 at unincorporated enterprises	-	2	170				170	0	170
B.2g+(D.29-D.39) at legal persons	-		1	277			277	0	277
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	659			659	0	659
Gross value added	-		1,043	937			1,980	0	1,980
G Trade; repair									
D.1 at legal persons	-	1	1,790				1,790	0	1,790
D.1 at unincorporated enterprises	-	2	115				115	0	115
B.2g+(D.29-D.39) at legal persons	-		1	951			951	0	951
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	322			322	0	322
Gross value added	-		1,905	1,273			3,178	0	3,178
H Hotels and restaurants									
D.1 at legal persons	-	1	299				299	0	299
D.1 at unincorporated enterprises	-	2	95				95	0	95
B.2g+(D.29-D.39) at legal persons	-		1	97			97	0	97
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	136			136	0	136
Gross value added	-		394	233			627	0	627
I Transport, storage and communication									
D.1 at legal persons	-	1	949				949	0	949
D.1 at unincorporated enterprises	-	2	83				83	0	83
B.2g+(D.29-D.39) at legal persons	-		1	751			751	0	751
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	259			259	0	259
Gross value added	-		1,032	1,009			2,041	0	2,041
J Financial intermediation									
D.1 at legal persons	-	1+2	634				634	0	634
D.1 at unincorporated enterprises	-		1	648			648	0	648
B.2g+(D.29-D.39) at legal persons	-		3	9			9	0	9
B.3g+(D.29-D.39) at unincorporated enterprises	-		1+3	35			35	0	35
Gross value added	-		634	692			1,327	0	1,327

Table 2.2 Regional gross value added compilation table, 2006, mio EUR (continued)

Activities	Bottom-up methods		Top-down methods				Adjustment to national accounts data	Total	
	1	2	statistical surveys and censuses		administrative data sources				6 = 2 do 5
			extrapolations, models and less related indicators						
K Real estate, renting and business activities									
D.1 at legal persons	-	1,696					1,696	0	1,696
D.1 at unincorporated enterprises	-	195					195	0	195
B.2g+(D.29-D.39) at legal persons	-		1+6	2,265			2,265	0	2,265
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	442			442	0	442
Gross value added	-	1,890	2,707				4,598	0	4,598
L Public administration; compulsory social security									
D.1 at legal persons	-	1,238					1,238	0	1,238
D.1 at unincorporated enterprises	-	0					0	0	0
B.2g+(D.29-D.39) at legal persons	-		1	362			362	0	362
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	0			0	0	0
Gross value added	-	1,238	362				1,600	0	1,600
M Education									
D.1 at legal persons	-	1,346					1,346	0	1,346
D.1 at unincorporated enterprises	-	1					1	0	1
B.2g+(D.29-D.39) at legal persons	-		1	139			139	0	139
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	10			10	0	10
Gross value added	-	1,347	149				1,496	0	1,496
N Health and social work									
D.1 at legal persons	-	1,013					1,013	0	1,013
D.1 at unincorporated enterprises	-	25					25	0	25
B.2g+(D.29-D.39) at legal persons	-		1	140			140	0	140
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	153			153	0	153
Gross value added	-	1,038	293				1,331	0	1,331
O Other community, social and personal services									
D.1 at legal persons	-	562					562	0	562
D.1 at unincorporated enterprises	-	23					23	0	23
B.2g+(D.29-D.39) at legal persons	-		1	243			243	0	243
B.3g+(D.29-D.39) at unincorporated enterprises	-		3	151			151	0	151
Gross value added	-	586	394				979	0	979

Table 2.2 Regional gross value added compilation table, 2006, mio EUR (continued)

Activities	Bottom-up methods	Top-down methods					Adjustment to national accounts data	Total
		statistical surveys and censuses		administrative data sources		total		
		closely related indicators	extrapolations, models and less related indicators	closely related indicators	extrapolations, models and less related indicators			
1	2	3	4	5	6 = 2 do 5	7	8 = 6 + 7	
P Private households with employed persons								
<i>D.1 at legal persons</i>	-	1	0				0	0
<i>D.1 at unincorporated enterprises</i>	-	2	5				5	5
<i>B.2g+(D.29-D.39) at legal persons</i>	-			1	0		0	0
<i>B.3g+(D.29-D.39) at unincorporated enterprises</i>	-			3	14		14	14
Gross value added	-		5		14		19	19
<b>Total activities (A to P)</b>		<b>1,593</b>		<b>11,449</b>		<b>146</b>	<b>27,188</b>	<b>27,188</b>

**Distribution keys used to regionalize activities' income components**

- 1 wages and salaries of employees at legal units
- 2 weighted number of employees at households
- 3 weighted number of the sum of self-employed and employees at households
- 4 annual work units in agriculture and area of agricultural land
- 5 electricity production
- 6 useful floor space weighted with central heating
- 7 forest area and the volume of the cut-down trees

**Income components**

- D.1 compensation of employees
- B.2g+(D.29-D.39) gross operating surplus combined with net other taxes on production
- B.3g+(D.29-D.39) gross mixed income combined with net other taxes on production



# CHAPTER 3

## GROSS FIXED CAPITAL FORMATION

### 3.1 Introduction

Gross fixed capital formation (GFCF) by region shows investment activity by institutional units or their parts in each region and activity. GFCF is an important indicator in deciding on regional policy as it reflects the economic situation in the region. SURS compiles and publishes data at the NUTS 2 level (cohesion regions of Vzhodna Slovenija and Zahodna Slovenija) and by activities in accordance with the Standard Classification of Activities (SKD).

This chapter is divided into four parts. In the first two parts, publication practice and revision policy including general information are described. Part three contains information about main data sources, which is followed by the most important part - description of the method of compilation in part four. The inventory refers to 2007. The methodology used in other years does not deviate significantly from the one described in this publication.

A generic list of methods for the compilation of regional accounts for GFCF and their brief description is found in the Eurostat manual<sup>7</sup>. This includes also a description of the methodological features and some more demanding parts of calculation.

### 3.2 Publication practice and revision policy

SURS publishes data on regional GFCF 22 months after the reference year (for instance, data for 2007 were published in October 2009). The release date is confirmed 10 months in advance (in January).

Data are published with the First Release on SURS's website<sup>8</sup>. The First Release contains the most important data with a short comment. The release is linked to more detailed data tables which are available in the SI-STAT database<sup>9</sup>. All types of publications are in Slovene and English.

Data are available at the NUTS 2 level (Vzhodna Slovenija, Zahodna Slovenija) and by groups of activities according to the SKD 2002 at the A6 level, at which the activities are grouped into six categories:

- A+B Agriculture, hunting, forestry, fishing;
- C+D+E Mining, manufacturing, electricity, gas and water supply;
- F Construction;
- G+H+I Wholesale and retail trade, hotels and restaurants, transport and communications;
- J+K Financial intermediation, real estate, renting and business activities;
- L+M+N+O+P Other services.

Data are presented as follows:

- in million EUR (data prior to 2007 are converted from tolar to euros according to the fixed exchange rate 1 EUR = 239.640 SIT),
- structure by region (Slovenia = 100),
- structure by activity (region = 100).

<sup>7</sup> Regional Accounts and Methods: Gross value-added and Gross fixed capital formation.

<sup>8</sup> [http://www.stat.si/eng/tema\\_ekonomsko\\_nacionalni.asp](http://www.stat.si/eng/tema_ekonomsko_nacionalni.asp).

<sup>9</sup> <http://www.stat.si/pxweb/Database/Economy/Economy.asp>.

The data series for the 1999–2006 period was published for the first time in December 2008<sup>10</sup>. Since then the data are published each year in October for a new reference year including revised data from previous years. Data revisions are made because of changes in data sources and methodology. Revisions in national accounts that affect revisions in regional accounts are also integrated in the next publication of regional accounts. Minor revisions in time series are done and published by yearly calculation.

All currently published data (1999-2008) are comparable over time. Time series are continuous (no interruptions in time series) because all adequate revisions are made in entire data series. No special methods are used for the calculation of backward data – these are calculated by the same method as regular data.

### 3.3 General principles

#### 3.3.1 Methods of regionalization

The observation unit in the compilation of GFCF is the local kind of activity unit (LKAU). In contrast to institutional unit, the use of LKAU assures more precise information about region where the investment is created as the majority of institutional units are heterogeneous – from the aspect of activity they are performing (principal and secondary activities) and from the aspect of location where the activity is performed (multiregional units with the centre of economic interest in more than one region). The use of LKAU provides data on GFCF that are homogenous from the aspect of activity and at the same time also considers location of unit where GFCF was actually created.

In general, the use of particular method of regionalization is limited by two conditions:

- first, by the availability of data sources required by particular method and
- second, by the characteristics of variable that is regionalized.

The most suitable regionalization methods for GFCF are bottom-up methods which provide the best result also in general terms, but in the case of GFCF are even more important. GFCF is by nature volatile and therefore its movement unpredictable and almost impossible to express with the movement of indicators such as the number of employees or gross wages and salaries which are more "smooth type" indicators. Consequently, top-down methods are not advisable due to lack of appropriate indicators for the regionalisation of GFCF. They are used only when data sources at the LKAU level are not available and consequently bottom-up methods can not be used. In principle, every method can be used to regionalize GFCF, but the quality of data differs depending on the method used.

In Slovenian regional accounts the majority of GFCF are regionalized with bottom-up methods; in case of incomplete data at the LKAU level, other methods are used.

#### 3.3.2 Principles of allocation and regionalization

The general principle of the allocation of GFCF by region is ownership. Regionalization of GFCF is possible by two principles:

- the residence principle; GFCF are allocated to the region where the producer unit owning the goods is resident. This principle is considered as a primary principle;
- the territorial principle; GFCF are allocated to the region where the object of investment is located.

In the compilation of GFCF by region, two additional principles are important: the organizational principle and the kind of activity principle. While according to the organizational principle all GFCF are attributed to the principal activity and to the region where the institutional unit has its headquarters, by the kind of activity principle GFCF is distributed to activities to which the investment is intended and to the region where the investment is created. If the institutional unit is engaged in several activities in several regions, the use of the organizational principle may have a significant impact on the accuracy of regional accounts. Therefore for regional accounts more appropriate principle is the kind of activity principle.

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<sup>10</sup> First Release: Gross fixed capital formation by region (5 December 2008).

Given the definition of LKAU and the kind of activity principle, according to which data from the primary source used in the calculation (Chapter 3.4.2) are distributed, one can assume that in Slovenian regional accounts for the compilation of GFCF LKAU as the observation unit is used. This assumption is valid only indirectly since in the primary data source no individual LKAU is identified, but individual investment created by institutional unit in a certain activity at a particular location. Thus the primary data source does not contain direct information about the location of LKAU where investment is created, but contains the information about the location of created investment. This means the possibility that GFCF is allocated to a region where LKAU does not exist and thus the location of investment and the location of LKAU are in different regions.

The primary data source data are shown according to the territorial principle which is otherwise the secondary principle of regionalization. Nevertheless, it is supposed that the results of the residence principle do not significantly differ from the results of the territorial principle. Larger differences would be likely to occur in data at a more detailed level of NUTS 3, but in practice the use of both principles is difficult to avoid.

### 3.3.3 Definition of variables

According to ESA 1995, capital formation consists of gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables.

Gross fixed capital formation consists of investments into new fixed assets, costs of transactions of existing fixed assets and additions to the value of non-produced assets.

Fixed assets, which include tangible and intangible fixed assets, are produced in the production process and used in other production processes for more than a year.

Tangible fixed assets include buildings and civil engineering works, machinery and other equipment, orchard development and breeding stock.

Intangible fixed assets include studies, projects and research work, software, entertainment and originals in the field of art, etc.

Non-produced non-financial assets come into existence other than through processes of production. They consist of tangible assets (land, water resources, etc.) and intangible assets (patented entities, leases, etc.). GFCF consists only of major improvements of tangible fixed assets and costs associated with the transfers of ownership of non-produced assets, such as land and patented assets. Acquisitions of non-produced non-financial assets are not included.

## 3.4 Data sources

### 3.4.1 Introduction

For the compilation of GFCF by region different data sources are used. These sources do not only include data on GFCF but to a lesser extent also data on other variables used in the regionalization of GFCF. In general, data sources enter the calculation of GFCF by region in one of the three ways:

- directly as a source of data on the GFCF,
- as a source of data used as distribution keys in the regionalization of GFCF,
- as a source of data on GFCF and for distribution keys at the same time.

Data sources for the compilation of GFCF by region are of two kinds. The first group consists of the statistical survey on gross investments (Chapter 3.4.2) and the second group includes other data sources to supplement the data of the first group (Chapter 3.4.3).

### 3.4.2 Statistical survey on gross investments

Statistical survey on gross investments<sup>11</sup> is the most important data source and the basis for the regionalization of GFCF. The survey is carried out with two questionnaires (INV-1 and INV-2) while the list of reporting units is drawn from the sample. Until 2003 the INV-1 questionnaire covered data from business entities with at least 10 employees, but since 2004 it comprises data from reporting units with at least 20 employees. The INV-2 questionnaire has existed since 2000 and included data from small legal units and entrepreneurs until 2003. From 2004 onwards it covers business entities with at least 20 employees. With the survey around 70% of GFCF estimated in national accounts is collected.

With the INV-1 questionnaire data on investments are collected by both organisational and kind of activity principles. Most data are collected by the kind of activity principle and cover acquisitions of new fixed assets that represent the primary data source for the compilation of GFCF by region. Besides data on acquisitions of new fixed assets, the questionnaire covers also data on acquisitions of existing fixed assets and disposals of existing fixed assets which are collected according to the organizational principle.

In 2007 almost 60% of the total GFCF estimated by national accounts was collected with the INV-1 questionnaire. The majority of investments was created for new fixed assets, as shown in Table 3.1.

In this text from this point onwards a reference to data collected with the INV-1 questionnaire means the data on investments in new fixed assets that are collected by the kind of activity principle, unless mentioned otherwise.

**Table 3.1 Share of investment by the INV-1 questionnaire in total GFCF estimated by national accounts, 2007, %**

	New fixed assets	Used fixed assets	Disposed fixed assets	Total INV-1
<b>Slovenia</b>	<b>61,9</b>	<b>2,8</b>	<b>-6,0</b>	<b>58,7</b>
Vzhodna Slovenija	61,4	2,5	-5,2	58,7
Zahodna Slovenija	62,4	3,0	-6,8	58,7

The INV-2 questionnaire comprises data on investments in new and used fixed assets less disposals of fixed assets. Data are distributed by the organizational principle and represent around 10% of the total GFCF estimated by national accounts.]

### 3.4.3 Other data sources

Other data sources include statistical data sources (national accounts data, construction statistics, Statistical Register of Employment) and data from other institutions (the Slovenian Roads Agency, the Agency of the Republic of Slovenia for Agricultural Markets and Rural Development, the Slovenian Railways, the Public Railway Agency of the Republic of Slovenia, the Police, etc.). Those institutions provide data about investments and other variables which are used in the calculation of GFCF by region.

Among other statistical sources it is appropriate to deal separately with two groups:

- data from national accounts: these are data at the level of the whole country and are derived from various data sources. In this publication this group of data sources is not specially treated, except in those cases where this is necessary for the calculation of GFCF by region;
- data from other sources: part of the data from these sources is used alone and other part as a distribution key to regionalize national accounts data.

The use of data sources is described in detail in the next section, the share of individual data source is shown divided by region and by activity in Table 3.2.

<sup>11</sup> Methodological explanation at [http://www.stat.si/doc/metod\\_pojasnila/14-090-ME.htm](http://www.stat.si/doc/metod_pojasnila/14-090-ME.htm).

**Table 3.2 Structure of data sources for the calculation of GFCF by region and activity, 2007, %**

	INV-1	INV-2	Exhaustiveness adjustments and final alignment	Total
<b>Slovenia</b>	<b>58,7</b>	<b>9,4</b>	<b>31,9</b>	<b>100,0</b>
Vzhodna Slovenija	58,7	7,6	33,7	100,0
Zahodna Slovenija	58,7	11,1	30,3	100,0
<b>Slovenia</b>	<b>58,7</b>	<b>9,4</b>	<b>31,9</b>	<b>100,0</b>
AB Agriculture, hunting, forestry, fishing	11,1	0,7	88,2	100,0
CDE Mining, manufacturing, electricity, gas and water supply	79,4	4,1	16,5	100,0
F Construction	85,0	5,6	9,3	100,0
GHI Trade, hotels and restaurants, transport and communications	71,5	8,0	20,5	100,0
JK Financial intermediation, real estate and business activities	13,8	20,9	65,3	100,0
LMNOP Other services	74,0	5,1	20,9	100,0

## 3.5 Methods of compilation

### 3.5.1 Introduction

The compilation of GFCF by region has two main phases. The first phase or the primary phase is based on the use of primary data source, i.e. the statistical survey on gross investments. The calculation is done by the bottom-up method and the pseudo-bottom-up method. In the second phase – called the "exhaustiveness adjustments phase" – calculations from the primary phase are adjusted and complemented with other data sources and using various methods of regionalization. The primary phase is described in Chapter 3.5.2 and the exhaustiveness adjustments phase in Chapter 3.5.3.

### 3.5.2 The primary phase

In the primary phase data from the statistical survey on gross investments are used. This phase covers around 70% of the total GFCF figure estimated in national accounts.

The most important part of data covered by the INV-1 questionnaire is the value of GFCF created in the new fixed assets. Data are available in compliance with the kind of activity principle and therefore can be calculated by regions and activities by the bottom-up method which is recommended for the compilation of GFCF. Data on GFCF in used fixed assets less disposals are also covered by the INV-1 questionnaire, but available only at institutional unit level. In this case data on GFCF in new fixed assets are used as a distribution key and the pseudo-bottom-up method of calculation is used.

The same distribution key is used also for the regionalization of GFCF created by institutional units covered with the INV-2 questionnaire. These data are available only at the level of institutional unit. Therefore data on new and used fixed assets less disposals of fixed assets are regionalized by the use of the pseudo-bottom-up method.

The next step in the primary phase framework are adjustments of the primary source data. In this phase adjustments relate solely to those whose primary data source is not sufficient for methodically correct calculation of GFCF by region. Adjustments that are necessary to ensure full coverage according to ESA 1995 are part of the second stage and are described in Chapter 3.5.3.

Primary source data are adjusted for some institutional units whose investments are attributed completely to the primary activity of the unit and to the region where this unit has its headquarters. Smaller units usually carry out one activity and are located in one region so their data on GFCF do not need any adjustments. On the other hand, larger

units frequently operate in more than one region (multi-regional units), carry out more than one activity (heterogeneous units) and create essentially larger value of GFCF than smaller units. The heterogeneity of multiregional units with large value of created GFCF have to be treated separately because their impact on the results is too large to neglect.

Data from the primary data source for the proper regionalization are inadequate or incomplete for two reasons: because of specificity of individual units or because of specificity of individual activity. Whatever the reason, the formation of distribution keys always requires additional data sources and the method of regionalization is the pseudo-bottom-up method.

An example of inadequate or incomplete data because of specificity of individual unit is Police data. In the primary data source all investments are allocated to the region where the Police has its headquarters, even though all GFCF were not created in this region. For more appropriate regionalization additional data from reports on "regional" Police departments are used. In 2007 the distribution key was equal to 0.496 for Vzhodna Slovenija and 0.504 for Zahodna Slovenija. The difference was minimal because of minimal difference in the number of occupied posts between the two regions.

Inadequate or incomplete data because of specificity of individual activity refer especially to transport and communication activities. Characteristic for these activities are broad networks and relatively rare LKAU's to which GFCF are allocated. Although the data collected by the INV-1 questionnaire are organised in accordance with the territorial principle, this activity is one of the most difficult tasks of compilation of regional GFCF.

The primary data source assures data of sufficient quality on postal and telecommunications activities and partly also on road network. Quality data are obtained from the Motorway Company of the Republic of Slovenia but this is not the case with data from the Slovenian Roads Agency which covers second important group of road network, i.e. main and regional roads and part of motorways. The latter demands an additional data source which is used as a distribution key.

Rail network data from the primary source are also provided only at the country level. The distribution key is calculated on the basis of data obtained from the technical report of the Slovenian Railways "Technical data of rail lines and stations" which comprises data on the number of rail lines and tracks and their capacity for individual rail line sectors. From these data the number of kilometres covered per day in a region is calculated and used as a distribution key. In 2007, 62.2% of the total kilometres were covered in Vzhodna Slovenija and 37.8% in Zahodna Slovenija.

### 3.5.3 The exhaustiveness adjustments phase

Data collected with the primary source, i.e. the statistical survey on gross investments, do not cover the total of GFCF according to ESA 1995. In this second phase of compilation of GFCF data from the primary phase are completed to achieve exhaustiveness according to ESA 1995, i.e. according to national accounts data.

**Table 3.3 Exhaustiveness adjustments of GFCF by region and activity, 2007, %**

	Vzhodna Slovenija	Zahodna Slovenija	Slovenia
AB Agriculture, hunting, forestry, fishing	70,3	29,7	100,0
CDE Mining, manufacturing, electricity, gas and water supply	60,5	39,5	100,0
F Construction	50,0	50,0	100,0
GHI Trade, hotels and restaurants, transport and communications	42,8	57,2	100,0
JK Financial intermediation, real estate and business activities	48,5	51,5	100,0
LMNOP Other services	43,6	56,4	100,0
<b>Total activities</b>	<b>50,2</b>	<b>49,8</b>	<b>100,0</b>

Exhaustiveness adjustments are distributed by region mostly by the top-down method in a way that the adjustments estimated by national accounts are regionalized with distribution keys. Exhaustiveness adjustments are done at the

national level for each institutional sector separately and are included in regional accounts in the same way. The contents of adjustments are described in the publication "Gross National Income Inventory" which is available on SURS's website.

**Table 3.4 Exhaustiveness adjustments of GFCF by region and institutional sector, 2007, %**

	Vzhodna Slovenija	Zahodna Slovenija	Slovenia
S.11 Non-financial corporations	47,5	52,5	100,0
S.12 Financial corporations	12,7	87,3	100,0
S.13 General government	46,0	54,0	100,0
S.14 Households	52,7	47,3	100,0
S.15 NPISH	34,1	65,9	100,0
<b>Total sectors</b>	<b>50,2</b>	<b>49,8</b>	<b>100,0</b>

In 2007 the total share of adjustments was equal to almost one-third of the total GFCF created. By sector, adjustments are distributed quite differently. The coverage in the primary data source for households (S.14) and non-profit institutions serving households (S.15) sectors was the worst and consequently in those two sectors adjustments are relatively more important than in other sectors. In absolute values the largest adjustments are necessary in the non-financial corporations sector (S.11) and households (S.14) while adjustments in the financial corporations (S.12), general government (S.13) and non-profit institutions serving households (S.15) sector represent only a few percent of the total adjustments.

In regional accounts, exhaustiveness adjustments of GFCF for the non-financial corporations sector represent those institutional units that are not covered by the primary data source, adjustments for own-account production, additions to the value of non-produced non-financial assets and adjustments for private use of business cars. All adjustments are regionalized according to the structure from the primary data source.

The financial corporations sector is according to the absolute value of created GFCF and also according to the share of adjustments in the total value besides the NPISH sector the smallest one but very important in financial intermediation activities as it accounted for almost 97% of the total value of GFCF created in these activities in 2007. Adjustments are made exclusively in financial intermediation and include exhaustiveness adjustments for institutional units that are not included in the primary data source, for private use of business cars, purchased software (patents and licenses) and own-account software production. All adjustments are regionalized according to the structure from the primary data source.

The share of the general government sector in total GFCF was equal to 15.3% while the share of adjustments in the total value of adjustments was much smaller in 2007. Adjustments are made for institutional units that are not covered by the primary data source, own-account software production, transaction costs for patents and licenses, and land transaction costs. All adjustments are in accordance with the structure of the primary data source.

The share of the households sector in total GFCF in 2007 was equal to 22.2%, but at the same time in some activities the majority of GFCF was created in this sector - for instance in agriculture, hunting and forestry 86.1%, and in real estate, renting and business activities 68.7% of the total GFCF created in the country.

Exhaustiveness adjustments represented the majority of the total GFCF created in this sector in 2007. Because the primary data source covers only 5% of the total GFCF, the use of quality distribution keys is even more important as the bottom-up method is used only on a small range of data. At the same time adjustments in this sector represented more than two-thirds of the total adjustments in 2007. The majority of them were made in financial intermediation, real estate, renting and business activities.

Adjustments are made for units that are not covered by the primary data source, for private use of business cars, own-account software production, GFCF in agriculture, dwellings and in buildings for business purposes of self-employed. Adjustments are regionalized by the following distribution keys:

- adjustments for GFCF created by self-employed in primary agricultural production (individual farmers) are regionalized by various indicators from the field of agriculture (area of agricultural land use, economic size of agricultural holdings and family farms and others);
- adjustments for GFCF of households in dwellings are regionalized on the basis of costs of own-account construction activities obtained from the statistical survey conducted in 2005;
- other adjustments are regionalized in accordance with the structure from the primary data source.

Exhaustiveness adjustments of GFCF in the non-profit institutions serving households sector cover adjustments for units that are not covered by the primary data source and separately for religious associations. In regional accounts adjustments for GFCF in buildings for religious ceremonies are regionalized on the basis of the data from construction statistics on building permits and the rest of data in accordance with the structure of the primary data source. The majority of adjustments are made in Other services which is also the group of activities where the majority of GFCF is created.

In the last step in the second phase of calculating GFCF by region data are finally brought into the line with national accounts data. Because part of regional GFCF is calculated by the bottom-up method, differences may arise between national and regional accounts results due to the use of different data sources. Part of the final reconciliation is also the adjustment of regional data for the value of GFCF as a result of balancing the expenditure approach of calculating GDP and the production approach. For both types of final adjustments the data on GFCF by region are adjusted proportionally according to NUTS 2.

# CHAPTER 4

## COMPENSATION OF EMPLOYEES

### 4.1 Introduction

Compensation of employees by region shows the total payment in cash and in kind by employers to employees in the region where the employers have their headquarters. It is the only category of primary income for which regional data are calculated for all institutional sectors. At the same time it is also the largest category of primary income and covers more than 50% of the income GDP. SURS calculates and publishes data at the NUTS 2 level (cohesion regions Vzhodna Slovenija and Zahodna Slovenija) and by activity according to the Standard Classification of Activities (SKD).

Compensation of employees can be calculated from two aspects – from the aspect of the payer and from the aspect of the recipient of compensation of employees. In this Chapter compensation of employees is calculated from the aspect of the payer - this means that compensation of employees is allocated to the region where the payer has its headquarter. The results from both aspects are identical if the headquarters of the payer and the place of living of the recipient are always in the same region. This is unlikely to happen because of daily commuters. The residence of daily commuters is often in a different region than the headquarters of the payer and consequently the results differ. The methodology of calculating data from the aspect of the recipient is described in Chapter 5.

This chapter is divided into four parts. In the first two parts, publication practice and revision policy including general information are described. Part three contains information about main data sources, which is followed by the most important part of methodology - description of the method of compilation. The description refers to 2007 and does not significantly differ compared to the methodology used in other years.

### 4.2 Publication practice and revision policy

SURS publishes data on regional compensation of employees 22 months after the reference year (for instance, data for 2007 were published in October 2009). The release date is confirmed 10 months in advance (in January).

Data are published with the First Release on SURS's website<sup>12</sup>. The First Release contains the most important data with a short comment. The release is linked to more detailed data tables which are available in SI-STAT database<sup>13</sup>. All types of publications are in Slovene and English.

Data are available at the NUTS 2 level (Vzhodna Slovenija, Zahodna Slovenija) and by groups of activities according to the SKD 2002 at the A6 level, at which the activities are grouped into six categories:

- A+B Agriculture, hunting, forestry, fishing;
- C+D+E Mining, manufacturing, electricity, gas and water supply;
- F Construction;
- G+H+I Wholesale and retail trade, hotels and restaurants, transport and communications;
- J+K Financial intermediation, real estate, renting and business activities;
- L+M+N+O+P Other services.

Data are presented as follows:

- in million EUR (data prior to 2007 are converted from tolar to euros according to the fixed exchange rate 1 EUR = 239.640 SIT),

<sup>12</sup> [http://www.stat.si/eng/tema\\_ekonomsko\\_nacionalni.asp](http://www.stat.si/eng/tema_ekonomsko_nacionalni.asp).

<sup>13</sup> <http://www.stat.si/pxweb/Database/Economy/Economy.asp>.

- structure by region (Slovenia = 100),
- structure by activity (region = 100).

The data series for the 1999–2006 period was published for the first time in December 2008<sup>14</sup>. Since then the data are published each year in October for a new reference year including revised data from previous years. Data revisions are made because of changes in data sources and methodology. Revisions in national accounts that affect revisions in regional accounts are also integrated in the next publication of regional accounts. Minor revisions in time series are done and published by yearly calculation.

All currently published data (1999-2008) are comparable over time. Time series are continuous (no interruptions in time series) because all adequate revisions are made in entire data series. No special methods are used for the calculation of backward data – these are calculated by the same method as data in regular compilation rounds.

### 4.3 General principles

#### 4.3.1 Methods of regionalization

The observation unit in the compilation of compensation of employees is local kind of activity unit (LKAU). In contrast to institutional unit, the use of LKAU assures more precise information about region where the compensation of employees was paid as the majority of institutional units are heterogeneous – from the aspect of activity they are performing (principal and secondary activities) and from the aspect of location where the activity is performed (multiregional units with centre of economic interest in more than one region). The use of LKAU provides data on compensation of employees that are homogenous from the aspect of activity and at the same time also considers location of unit where compensation of employees was actually paid.

In general, the use of particular method of regionalization is limited by two conditions:

- first, by the availability of data sources required by particular method and
- second, by the characteristics of variable that is regionalized.

To regionalize compensation of employees all disposable methods are used although the quality of results obtained from different methods may vary. The general rule about bottom-up methods to be the most appropriate to regionalize data holds true also when calculating compensation of employees. However, if data sources are not available at the level of LKAU, the movement of variable can be well anticipated with suitable time series which are used as distribution keys (hours worked, number of employees). Related time series, i.e. their movements in time, are in positive correlation with the movement of compensation of employees.

In Slovenian regional accounts the majority of compensation of employees are regionalized with bottom-up methods; in case of incomplete data at the LKAU level, other methods are used.

#### 4.3.2 Definition of variables

According to ESA 1995, compensation of employees includes gross wages and salaries, personal remunerations and employers' social contributions.

Gross wages and salaries include all gross payments for regular and overtime working hours, premiums for productivity and payments made by employers to employees for the time when they do not work due to annual leave, national holidays or due to sick leave (up to one month).

Personal remunerations comprise expenses for food, transport to and from work and reimbursement for annual vacation and include tips in restaurants and personal services as well as the estimation of private use of business cars.

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<sup>14</sup> First Release: Compensation of employees by region (5 December 2008).

Employers' social contributions include actual (compulsory and voluntary) and imputed social contributions. Actual social contributions consist of payments by employer on behalf of their employees - majority of them at the standard rate of 16.1% (in 2007). Imputed social contributions comprise payments by employer to employees during the absence from work due to sickness, accidents, etc.

## 4.4 Data sources

### 4.4.1 Statistical Survey on Earnings

For the compilation of compensation of employees various data sources are used. The primary data source is the statistical survey on earnings<sup>15</sup>. Observation units in this survey are legal persons of the public and private sectors or their units registered for performing activity in the Republic of Slovenia. Data for this report are collected every month by the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) and sent to SURS for statistical processing.

The survey covers persons in paid employment who signed employment contracts (contract work is not taken into consideration). All persons in paid employment, employed for fixed or unspecified period of time, irrespective of whether they work full time or part time, are taken into consideration. Individual private entrepreneurs and persons employed by them, own account workers, workers in employment promotion schemes, posted workers and farmers are not covered. The survey covers more than 60% of the total compensation of employees paid in Slovenia, estimated by national accounts (Table 4.1). Data from the survey are used directly for the calculation of compensation of employees by region and also indirectly as a distribution key.

**Table 4.1 Share of gross wages and salaries collected by the statistical survey on earnings in total compensation of employees by region and activity, 2007, %**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
AB Agriculture, hunting, forestry, fishing	52.0	50.1	56.1
CDE Mining, manufacturing, electricity, gas and water supply	63.6	63.5	63.7
F Construction	52.4	49.8	54.9
GHI Trade, hotels and restaurants, transport and communications	57.4	53.9	59.4
JK Financial intermediation, real estate and business activities	52.9	51.8	53.4
LMNOP Other services	69.8	70.6	69.2
<b>Total activities</b>	<b>61.1</b>	<b>60.7</b>	<b>61.5</b>

### 4.4.2 Other data sources

Other data sources used for the compilation of compensation of employees by region are:

- national accounts data are used as a data source for personal remunerations and adjustments that assure coverage of compensation of employees in accordance with the production boundary of ESA 1995;
- data from profit and loss accounts (annual accounting statements) are used as a primary data source for the household sector as this sector is not covered by the statistical survey on earnings. Data from this source are used directly as a data source for calculating compensation of employees by region and also as a data source for distribution keys. Data from profit and loss accounts are an important data source for national accounts and are, consequently, also used indirectly when calculating regional compensation of employees for other institutional sectors. In the last case other methods than the bottom-up method are used;
- other data sources are used indirectly as distribution keys to regionalize national accounts data. They complement the primary data source when primary source data are not appropriate for various reasons. Those data sources are: the Statistical Register of Employment (Chapter 2.3.4), income tax declarations and others.

<sup>15</sup> Methodological explanation on [http://www.stat.si/doc/metod\\_pojasnila/07-010-ME.htm](http://www.stat.si/doc/metod_pojasnila/07-010-ME.htm).

## 4.5 Methods of compilation

For the compilation of compensation of employees by region various methods are used. The first phase of the calculation is based on the bottom-up method with the use of primary data sources. The statistical survey on earnings is used as the primary source for non-financial corporations (S.11), financial corporations (S.12), general government (S.13) and non-profit institutions serving households (S.15) while for the households sector the primary data source is profit and loss accounts.

In the second phase complementary data sources are used and calculation based on top-down methods is applied. The calculation from the first phase is complemented as follows:

- by the calculation of social contributions paid by employers which are calculated as a percentage of gross wages and salaries; in 2007 the standard rate was equal to 16,1% of gross wages and salaries and covers health and pension insurance, unemployment, maternity leave and injuries at work;
- by the calculation of personal remunerations: data are obtained from national accounts and are allocated using various distribution keys;
- by exhaustiveness adjustments: the data source are national accounts data which are regionalized by various distribution keys. Adjustments are in greater detail described in the publication "Gross National Income Inventory" which is available on SURS's website.

In the last phase final adjustment to national accounts data is made. Differences between both groups (regional accounts data and national accounts data) are common and are mostly a consequence of different primary data sources used (profit and loss accounts in national accounts and the statistical survey on earnings in regional accounts). Besides the data source, the methods of calculation also have an impact on the final result.

All three phases are calculated individually for each institutional sector. This provides a better quality of results because of the use of different data sources. Below the calculation and data for compensation of employees by region are described in greater detail.

The primary data source for the calculation of compensation of employees by region in the non-financial corporation sector is the statistical survey on earnings. The survey provides data on gross wages and salaries which cover 61.8% of the total compensation of employees in this sector. Data on other personal remunerations (misreporting, tips, etc.) are calculated within national accounts and are allocated by cohesion regions in accordance with the structure of gross wages and salaries by activity and region. Table 4.2 shows the structure of compensation of employees by region for non-financial corporations by components of calculation.

**Table 4.2 Structure of compensation of employees in non-financial corporations by region and components of calculation, 2007, %**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Gross wages and salaries	61.8	63.1	60.8
Social contributions	9.9	10.2	9.8
Personal remunerations	20.5	19.8	21.0
Exhaustiveness adjustments	4.3	4.5	4.2
Reconciliation with national accounts data	3.5	2.5	4.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The calculation of compensation of employees by region for the financial corporations sector is quite similar to the one for non-financial corporations. The primary data source is the statistical survey on earnings; other personal remunerations are calculated by cohesion regions by the allocation of national accounts value in accordance with the structure of gross wages and salaries. There are no exhaustiveness adjustments in this sector. Table 4.3 shows the structure of compensation of employees by region for financial corporations by components of calculation.

**Table 4.3** Structure of compensation of employees in financial corporations by region and components of calculation, 2007, %

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Gross wages and salaries	83.9	83.2	84.2
Social contributions	13.5	13.4	13.6
Personal remunerations	13.4	13.4	13.4
Reconciliation with national accounts data	-10.8	-10.0	-11.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The calculation for the general government sector is similar to the ones made for financial and non-financial corporations. The primary data source is the statistical survey on earnings; other personal remunerations calculated by national accounts are allocated to cohesion regions according to gross wages and salaries structure. There are no exhaustiveness adjustments in this sector. Table 4.4 shows the structure of compensation of employees by region for general government by components of calculation.

**Table 4.4** Structure of compensation of employees in general government by region and components of calculation, 2007, %

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Gross wages and salaries	72.9	73.5	72.6
Social contributions	11.7	11.8	11.7
Personal remunerations	9.6	9.2	9.9
Reconciliation with national accounts data	5.7	5.5	5.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The procedure of calculating compensation of employees by region in the households sector differs from the procedure used in other sectors because the statistical survey on earnings does not include data for this sector. Primary data sources are profit and loss accounts while additional data are received from national accounts data, the Statistical Register of Employment and income tax declarations.

Profit and loss accounts for small unincorporated enterprises provide the majority of compensation of employees in this sector – more than 80%. To this value data in much smaller amount from profit and loss accounts for large unincorporated enterprises are added. Results are calculated directly from data at the level of unit, therefore by using the bottom-up method.

National accounts data are used as a data source in the households sector for two elements of calculation. First, adjustments for compensation of employees in deliberately non-registered activities, illegal activities and activities that are not required to register are calculated at the national level and are allocated among regions using appropriate distribution keys. The data sources for these distribution keys are the Statistical Register of Employment and income tax declarations. Second, data on compensation of employees in agriculture calculated at the national level are regionalized according to the structure of compensation of employees of small unincorporated enterprises. With this part of calculation 15% of compensation of employees in this sector is estimated with the use of top-down methods.

In the last step the final reconciliation with national accounts data is done; in 2007 it amounted at the national level to 1.4% of the total compensation of employees in the households sector.

In the NPISH sector the primary source for regionalization of compensation of employees are data on gross wages and salaries paid collected with the statistical survey on earnings. In 2007 gross wages and salaries including social contributions amounted to more than 51% of compensation of employees in total. Other personal remunerations, compensation of employees in religious associations and in some other business entities, which are not covered in the primary data source, are regionalized by the allocation of national value according to the structure of gross wages and

salaries from the statistical survey on earnings. Final reconciliation with national accounts data amounted to 2% of the total compensation of employees paid in the NPISH sector. Table 4.5 shows the structure of compensation of employees for the NPISH sector by components of calculation.

**Table 4.5 Structure of compensation of employees in NPISH by region and components of calculation, 2007, %**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Gross wages and salaries	44.2	43.8	44.4
Social contributions	7.1	7.1	7.1
Personal remunerations	13.4	13.5	13.4
Exhaustiveness adjustments	37.3	36.5	37.3
Reconciliation with national accounts data	-2.0	-0.9	-2.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

# CHAPTER 5

## HOUSEHOLD ACCOUNTS

### 5.1 Introduction

Regional household accounts are compiled for the households resident on the regional territory. Due to practical reasons those accounts are limited to distribution accounts, without the production of income accounts. Regional household accounts comprise the allocation of primary income account and the distribution of secondary income account. The purpose of those accounts is to measure the primary income and disposable income of the resident households in the region. SURS publishes household accounts at the NUTS 3 level, namely for 12 statistical regions, and at the NUTS 2 level (cohesion regions Vzhodna Slovenija and Zahodna Slovenija).

The description of regional household accounts methodology is divided into five chapters. In the first chapter the publication and revision policy is described. It is followed by the description of the household sector, residency principle and main sources used. The most important parts are the last two chapters which describe the methodology of compiling the allocation of primary income account for the household sector and the distribution of secondary income account for the same sector. The description of methodology relates to 2007. The methodology for other years does not differ significantly to the description in this publication.

### 5.2 Publication practice and revision policy

The regional household accounts are published at the latest 24 months after the reference year (for instance, data for 2007 were published in October 2009). The timetable for publishing is prepared one year in advance; the exact date of publishing is confirmed one week before publishing.

Data become publicly available with the First Release on SURS website<sup>16</sup>. The First Release contains the most important information with a short commentary and a link to detailed tables in the SI-STAT database<sup>17</sup>. All publications are available in Slovene and English languages.

Data are published at the NUTS 2 and NUTS 3 levels (cohesion regions Vzhodna Slovenija and Zahodna Slovenija, and 12 statistical regions). Accounts at the NUTS 3 level were first published at the end of 2010, before they were published at the NUTS 2 level.

Data are presented as follows:

- in million euros (data prior to 2007 are converted by using the fixed exchange rate between tolar and euro 239.64 tolar for one euro),
- structure by region (Slovenia = 100),
- per capita in euro (data prior to 2007 are converted by using the fixed exchange rate between tolar and euro 239.64 tolar for one euro).

Data for the 2000–2006 period were first published in December 2008<sup>18</sup>. Since then each year the data are published for the new reference year with the revised data for the previous years. Revisions are a result of changes in data sources or methods of calculation. Revisions which result from major revisions at the national level are integrated in regional accounts until the next publication. Revisions of smaller extent in time series are conducted and published at each annual compilation.

All currently published data (1999–2008) are comparable over time. There is no break in time series because all revisions have been conducted for the whole time series. For the compilation of the previous years' data no special methods are used; data are accordingly compiled in the same way as data in a regular compilation round.

<sup>16</sup> [http://www.stat.si/eng/tema\\_ekonomsko\\_nacionalni.asp](http://www.stat.si/eng/tema_ekonomsko_nacionalni.asp).

<sup>17</sup> <http://www.stat.si/pxweb/Database/Economy/Economy.asp#03>.

<sup>18</sup> First Release: Household accounts by region (5 December 2008).

### 5.3 Household sector and residence

According to ESA 1995, the household sector covers individuals or groups of individuals as consumers and possibly also as entrepreneurs producing market goods and non-financial and financial services. It also includes individuals or groups of individuals as producers of goods and non-financial services for exclusively own final use.

Households as consumers may be defined as small groups of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. The criteria of the existence of family or emotional ties may be added.

Households as producers of market goods and services are unincorporated enterprises. Producers of goods and services for own final use are farming households and owners of dwellings producing market goods and dwelling services exclusively for their final use.

The principal resources of households are derived from compensation of employees, property income, transfers from other sectors, the receipts from sales of market products or the imputed receipts from production of products for own final use.

A household has a centre of economic interest where it maintains a dwelling which members of the household treat and use as their permanent residence. All individuals who belong to the same household must be resident in the same region. Households are uni-regional institutional units; their centre of economic interest is in the region where they live, not the region where they work. Exceptions are students and long-term patients studying or staying in another region of the home region more than a year. They are treated as the residents of the host region.

Distributing the data on different incomes or expenditure of the household members in Slovene regional accounts is relatively simple since the majority of data sources include the information on individuals' address, municipality (NUTS 5 level) or administrative unit (NUTS 4 level). In case the data set includes only the information on recipients, namely their personal identification number, their incomes and expenditure are linked with the data from the Central Population Register and then appropriately distributed. Data from the Central Population Register are also used for determining students' temporarily residence.

### 5.4 Data sources

#### 5.4.1 Introduction

For the compilation of regional household accounts three main data sources and some additional data sources are used. The main data source is annual income tax declarations of individuals, namely tax declarations and assessed taxes (Chapter 5.4.2). The second important data source is data from the area of social protection (social transfers) which are not covered or not fully covered in income tax declarations (Chapter 5.4.3). The third important data source is annual accounting statements for entrepreneurs, used for the calculation of mixed income of unincorporated enterprises (Chapter 5.4.4).

In addition to main data sources also other data sources are used, e.g. national accounts data, data from other statistical surveys and others. Additional data sources are shortly presented in Chapter 5.4.5 and described in greater detail at the description of each transaction's compilation.

#### 5.4.2 Income tax

Income taxes are taxes on income of natural persons. All residents of the Republic of Slovenia whose incomes originate in Slovenia or abroad are obliged to pay income tax. Income taxes are paid also by non-residents if their incomes originate in Slovenia. Income tax is calculated on the basis of income tax declarations, tax rates and tax relief, in accordance with the current legislation. The taxation system is determined by the Tax Procedure Act and the Personal Income Tax Act (the first Official Journal of the Republic of Slovenia No. 48/1990, with modifications and amendments in Official Journal of the Republic of Slovenia No. 34/1991) which determined the first income tax assessing in 1992. The Act was supplemented in 1993 (Official Journal of the Republic of Slovenia No. 71/1993).

With the exception of smaller amendments the Act had not been significantly changed until 2004 (Official Journal of the Republic of Slovenia No. 54/2004) which was used in accounting years of 2005 and 2006. The new Personal Income Tax Act (Official Journal of the Republic of Slovenia No. 117/2006) was adopted in November 2006 and was used for accounting years 2007 and 2008, for 2008 together with the amendments (Official Journal of the Republic of Slovenia, No. 10/2008).

SURS obtains the income tax data on the basis of the National Statistics Act and the agreement between the Ministry of Finance of the Republic of Slovenia, Tax Administration of the Republic of Slovenia (DURS) and SURS (concluded on June 6th 2002). DURS transmits the data to SURS in December for the previous year, but the data are available two to three months later. In this period the logical control of the data and removing of possible mistakes are in progress.

Income tax data are allocated into separate files, according to data type:

- income tax declarations (income from employment, income from business activities, income from agriculture and forestry, property income, other incomes), available since 1993;
- income tax relief for supporting family members, available since 1997;
- income tax relief for different purposes, available for 2002–2006;
- income tax relief for premiums paid in voluntary pension funds, available since 2002;
- control data (payers' declarations), available since 1997;
- incomes from abroad, available since 2005, before only the data on wages and pensions from abroad were available;
- data of assessed taxes, available since 2005.

When using income tax data it is important to pay attention to:

- the content of sections and codes over time series;
- tax relief (incomes which are not taxed); these data have to be obtained from other data sources. Examples: disability allowance, child allowance, insurance claims, etc.;
- threshold of income (e.g. some incomes are not taxed in total but only the amount above a certain threshold, which is usually equal to the amount of general relief); these data have to be obtained from other data sources or used with the additional sources for verifying the quality. Examples: pensions, social transfers, incomes from student work, interests, scholarships, etc.

### 5.4.3 Social transfers

In terms of households, the social transfers are incomes received on basis of certain rights. These rights are set out statutorily, derived from pension and disability or health insurance schemes or economic situation. Social transfers' data are transmitted to SURS by institutions responsible for implementing social protection programmes. Data transmission is determined by the National Statistics Act and the agreement between SURS and the following institutions: the Pension and Disability Insurance Institute (ZPIZ), the Ministry of Labour, Family and Social Affairs (MDDSZ) and the Employment Service of Slovenia (ZRSZ). Data received by SURS are primarily used for conducting the Statistical Survey on Expenditure and Receipts of Social Protection Schemes.

A disadvantage of social transfers' data is non-availability of recipients' residence data. Therefore the processing of the social transfers data includes linking the income and recipients' data with the data on residence and distributing the incomes into appropriate region. The linkage is done with the data from the Central Population Register (CPR) through personal identification numbers (PIN).

### 5.4.4 Annual accounting statements

All business entities submit annual accounting statements to the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) till March 31st for the previous calendar year. According to the Companies Act, small unincorporated enterprises with the legal status of individual private entrepreneurs submit profit and loss

accounts while large unincorporated enterprises submit profit and loss accounts and balance sheets. In regional accounts these data are used for the compilation of mixed income of unincorporated enterprises in the allocation of primary income account.

When using the annual accounting statements data, one has to pay attention to potential inconsistency between the data source and theoretical requirements of the methodology. Annual accounting statements include the headquarters information without the information on the entrepreneurs' residence. Hence, the methodology requires recording the entrepreneurs' income in region of entrepreneurs' residence. Linking the data of two registers, namely the Statistical Register of Employment (SRE) and the Central Population Register (CPR), showed that for 869 entrepreneurs of 50,665 in total the residence region differs from the workplace region (as of 31st December 2005). These entrepreneurs represent less than 2% of all entrepreneurs, therefore we may assume that the data source corresponds to the methodology or the deviation does not impact on results significantly (Table 5.1.).

**Table 5.1 Region of workplace and region of residence of entrepreneurs', 31st December 2005**

Number of individual private entrepreneurs in employment (self-employed)	50,665
Number of entrepreneurs whose region of work and region of permanent residence are equal	49,796
Number of entrepreneurs whose region of work and region of permanent residence are different	869
Share of entrepreneurs whose region of work and region of permanent residence are different (%)	1.7

#### 5.4.5 Other data sources

Other data sources which are used for the compilation of regional household accounts are results of several statistical surveys, register data and other inquiries:

- the compilation of regional gross domestic product (Chapter 2) is the data source for distribution keys for mixed income of households' agricultural activities and operating surplus of owner-occupied dwellings, furthermore provide also the number of residents by region;
- the statistical survey on building permits provide the number of buildings, their size and dwellings in them according to building type and investor by statistical regions<sup>19</sup>;
- the statistical survey on scholars provide the data of scholarships and number of students<sup>20</sup>;
- the statistical survey EU-SILC (Survey on Income and Living Conditions) is the data source for mortgage and other loans for dwelling purchase<sup>21</sup>;
- the Statistical Register of Employment (SRE) provide the data on employees by activities (Chapter 2.3.4);
- different statistical surveys from the area of education are the data source for the number of pupils and students by statistical region;
- the Business Register of Slovenia (BRS) is the data source for the number of self-employed by activities;
- the Central Population Register (CPR) is the data source for temporary residence of students;
- the Central Register of Registered Motor Vehicles of the Ministry of the Interior is the data source for the number of registered vehicles;
- the Institute of Public Health of the Republic of Slovenia provide the data on the number of persons who sought medical attention;
- other inquiries include the data which are obtained by insurance companies and the Lottery of Slovenia and the Sports Lottery.

<sup>19</sup> Methodological explanation at [http://www.stat.si/doc/metod\\_pojasnila/19-072-ME.htm](http://www.stat.si/doc/metod_pojasnila/19-072-ME.htm).

<sup>20</sup> Methodological explanation at [http://www.stat.si/doc/metod\\_pojasnila/09-035-ME.htm](http://www.stat.si/doc/metod_pojasnila/09-035-ME.htm).

<sup>21</sup> Methodological explanation at [http://www.stat.si/doc/metod\\_pojasnila/08-236-ME.htm](http://www.stat.si/doc/metod_pojasnila/08-236-ME.htm).

## 5.5 Allocation of primary income account

### 5.5.1 Introduction

The allocation of primary income account is the first account of the distribution accounts and shows the distribution of primary income among different institutional sectors. Primary income is the income which resident units receive by virtue of their direct participation in the production process, and the income receivable by the owner of a financial asset or a tangible non-produced asset in return for providing funds to, or putting the tangible non-produced asset at the disposal of, another institutional unit.

In terms of households, the allocation of primary income account shows how households participate in the production process or shows the source of their primary income. The largest share of household incomes is represented by compensation of employees (gross wages with the employers' social contributions) which employees receive as payment for their work. The second largest source is net operating surplus/mixed income. Operating surplus of households originates in housing activities of households (market housing activities and housing activities of households which are owner-occupiers). Mixed income originates from economic activities of self-employed (unincorporated enterprises) and agricultural activities of households. A relatively smaller share of household primary income is represented by property income (receivable and payable). Property income (receivable) comprises interest on financial investments, dividends of owners shares in corporations and imputed income from technical provisions in insurance companies and pension funding. Household primary income is reduced by property income (payable), the major part of which is interest on borrowings.

SURS publishes the allocation of primary income of the household sector by the following categories:

- operating surplus/mixed income,
- compensation of employees,
- property income (receivable),
- property income (payable),
- balance of primary income as the balancing item of the account.

The value of operating surplus/mixed income is shown without consumption of fixed capital (net value); consequently the balance of primary income is also shown in net value. Table 5.2 shows the allocation of primary income account for the household sector for 2007 by regions at the NUTS 2 level.

**Table 5.2 Allocation of primary income account of the household sector by region, 2007, mio EUR**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Net operating surplus / mixed income	4,117	2,289	1,828
Compensation of employees	17,262	8,254	9,008
Property income, receivable	779	305	474
Property income, payable	401	168	234
Net balance of primary income	21,756	10,680	11,076

### 5.5.2 Operating surplus/mixed income B.2/B.3

Operating surplus of the household sector is the residual category in the calculation of value added in housing activities whose major share originates from dwelling activities of households which are owner-occupiers (imputed rents). Mixed income is the residual category of the calculation of value added of unincorporated enterprises. Calculations are done separately for agricultural production, small and large unincorporated enterprises. Calculation methods for operating surplus and mixed income at the national level are described in detail in the publication "Gross National Income Inventory" which is available on SURS's website.

Almost two-thirds of operating surplus/mixed income of households is created by unincorporated enterprises whereas housing activities represent 23% and agricultural activities 14%. Table 5.3 shows the data on net operating surplus/mixed income for the household sector by region at the NUTS 2 level for 2007.

**Table 5.3 Net operating surplus/mixed income of the household sector by region, 2007**

	Slovenia	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
	(%)	mio EUR		
Unincorporated enterprises	63	2,593	1,396	1,197
Households' housing activities	23	950	496	454
Households' agricultural activities	14	574	397	177
<b>Total</b>	<b>100</b>	<b>4,117</b>	<b>2,289</b>	<b>1,828</b>

Mixed income of households' agricultural activities by region is calculated by the top-down method with the distribution key. It is calculated by combining the data on the number of farmers in the region with the data on the size of agricultural area. The data source is the Agriculture Census which is updated with other sources (Chapter 2.6.1.).

Operating surplus of households' housing activities by region is calculated by the top-down method with the distribution key. It is calculated on the basis of useful floor space weighted by the data on central heating in dwellings. The data source is the 2002 Population Census (Chapter 2.6.4).

Mixed income of unincorporated enterprises at the regional level is calculated in the same way as it is calculated at the national level with the exception of exhaustiveness adjustments. They are distributed by regions with the distribution keys which are described as follows.

The calculation of unincorporated enterprises' value added includes two types of exhaustiveness adjustments:

- exhaustiveness adjustments in the calculation of the registered activities' value added (production output, intermediate consumption and compensation of employees),
- exhaustiveness adjustments concerning deliberately non-registered activities, illegal activities and not required to register activities.

In regional household accounts exhaustiveness adjustments of registered activities are distributed proportionally by activities based on the primary data source (annual accounting statements):

- output by AOP 050 (value of sales),
- intermediate consumption by AOP 062 + AOP 063 (costs of goods and services),
- compensation of employees by AOP 065 (costs of wages).

Exhaustiveness adjustments for unincorporated enterprises which regard deliberately non-registered activities, illegal activities and activities not required to register contribute an important share of household mixed income. Those exhaustiveness adjustments are distributed by region by the top-down methods, therefore with the use of distribution keys. Tables 5.4 and 5.5 present data sources for calculating the distribution keys. Estimation for those activities is quite demanding at both levels, national and regional; therefore it remains to be subject of further improvements.

**Table 5.4 Sources for distribution keys for mixed income from deliberately non-registered and illegal activities of households**

Type of adjustment	Distribution key	Data source
Smuggling/consumption of drugs	Number of persons which sought medical attention for the first time	Institute of Public Health of the Republic of Slovenia
Prostitution	Number of night clubs with dancing programme and accommodations	Web
Alternative healing	Number of registered healers	BRS
Construction	Number of building permits	SURS
Baby sitting and taking care of elderly people	Number of households in region	SURS
Manufacturing of furniture	Number of building permits	SURS
Taxi drivers	Income of registered taxi drivers	Annual accounting statements
Private renting of apartments, rooms	Income of renting	DURS, income tax declarations
Teaching lessons	Number of students in region	SURS

**Table 5.5 Sources for distribution keys for mixed income from activities not required to register**

Type of adjustment	Distribution key	Data source
Own account construction activities	Number of building permits	SURS
Honoraria payments, temporary/occasion work	Income from honoraria payments and temporary/occasion work	DURS, income tax declarations
Domestic services	Number of households in region	SURS

### 5.5.3 Compensation of employees D.1

#### 5.5.3.1 Introduction

Compensation of employees in Slovenia represents approximately 80% of household primary income and more than 60% of all incomes which households receive. Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period. Compensation of employees is broken down into wages and salaries (Chapter 5.5.3.2) and employers' social contributions (Chapter 5.5.3.3).

Compensation of employees by region can be observed from two aspects, from the aspect of the payer (business entity) or from the aspect of the recipient (employee). In this chapter we are treating the compensation of employees from the aspect of the recipient; therefore, they are located in the region of the recipient's residence. If the headquarters of the payer and the residence of the recipient are always within the same region, results of the calculation from both aspects are identical; however, due to the impact of daily commuters this is almost not happening. The residence of daily commuters is often in a different region than the headquarters of the payer, therefore the results are different. The methodology of estimating the compensation of employees by regions from the aspect of the payer is presented in Chapter 4.

#### 5.5.3.2 Gross wages and salaries D.11

Wages and salaries in cash include the values of any social contribution, income taxes, etc., payable by the employee even if they are actually paid by the employer and paid directly to social insurance schemes, tax authorities, etc. on behalf of the employee. In addition to basic wages and salaries, wages and salaries in cash include different compensations or personal benefits: enhanced rates of pay for overtime, for work in difficult conditions, allowances for transport to and from work, bonuses based on productivity or profits, holiday pay for official holidays or annual holidays, etc.

Wages and salaries in kind consist of goods and services, or other benefits, provided free or at reduced prices by employers which can be used by employees in their own time and at their own discretion, for the satisfaction of their own needs or wants or those of other members of their households. The most common are: meals and drinks or price reductions obtained in free or subsidized canteens, housing services of a type that can be used by all members of the household to which the employee belongs, the services of vehicles or other durables provided for the personal use of employees, goods and services produced as outputs from the employer's own processes of production, such as free travel for the employees of railways or airlines, free coal for miners, or free food for employees in agriculture, the provision of sports, recreation or holiday facilities for employees and their families, etc.

In regional household accounts the category of wages and salaries is calculated by the bottom-up method with the aggregation of data on incomes from work for each region. In the second step the calculated regional values are adjusted to national values. Data sources for the calculation of the regional wages and salaries are income tax declarations. Table 5.6 presents types of incomes from income tax declarations which comprise the category of wages and salaries.

**Table 5.6 Income from employment in income tax declarations, 2007, mio EUR**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Wages and salaries	11,163	5,360	5,804
Annual holiday bonuses	558	288	270
Other incomes from employment	116	46	71
Wages and salaries from abroad	61	20	41
Wages and salaries in kind / bonuses	57	17	40
Jubilee rewards, special extra payments at retirement, solidarity aids	19	7	12
Income from student work	200	80	120
Income of clerics	0.4	0.2	0.2
<b>Total</b>	<b>12,176</b>	<b>5,818</b>	<b>6,357</b>
<b>Structure (%)</b>	<b>100.0</b>	<b>47.8</b>	<b>52.2</b>

Table 5.7 shows the value of wages and salaries in national accounts and their distribution by region. Data show that the amount of adjustment is EUR 2,606 million which is almost 20% of the total value. The difference between the categories "wages and salaries" in income tax declarations and "basic gross wages and salaries" in national accounts is negligible. The differences appear in categories of other incomes from employment which in income tax declarations amount to EUR 1,013 million and in national accounts to EUR 3,618 million.

**Table 5.7 Gross wages and salaries in national accounts and distribution by region, 2007, mio EUR**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Gross wages and salaries	14,782	7,064	7,719
Basic gross wages	11,164		
Other personal incomes	3,618		

For regionalization of the category other personal income by type of income the additional sources would be needed. National accounts data could be broken down into lower categories on the basis of the labour cost survey, however also in income tax declarations such categories are needed. Some categories from the labour cost survey fully correspond to categories in income tax declarations, e.g. annual holiday bonuses and wages in kind/bonuses while all other categories in income tax declarations are too broadly defined. For that reason the distribution of lower categories of wages and salaries with the existing data would be incorrect.

In the calculation of wages and salaries by region it is necessary to be conscious of an exception, namely income from student work. According to the regional accounts methodology, students who stay out of their home region for more than a year should be treated as residents of a host region. In income tax declarations the income from student work is recorded according to students' permanent residence. Therefore in the compilation of regional accounts appropriate

adjustments are done. Adjustments are done on the basis of linking the data from income tax declarations with the data from the Central Population Register, namely the data on students' temporary residence.

Table 5.8 shows that the influences of adjustments on the structure between regions are relatively low (0.8 of a percentage point). The reason is in the low number of registered students who are temporarily staying outside of their home region. Data on employers of students show a different ratio, namely in the region of Zahodna Slovenija 71.4% of all income from student work was paid. However, on the basis of the payments it is not possible to conclude that the students' region of work is equal to their region of actual residence. We assume that the share of students staying outside of their home region is larger but we do not have enough reliable data.

**Table 5.8 Income from student work by residence, 2007**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Income from student work by permanent residence, in EUR	199,585,596	81,445,225	118,140,371
Structure (%)	100.0	40.8	59.2
Income from student work by temporary residence, in EUR	3,528,312	2,590,946	937,366
Income from student work (adjusted), in EUR	199,585,596	79,791,645	119,793,951
Structure (%)	100.0	40.0	60.0

### 5.5.3.3 Employers social security contributions D.12

Part of compensation of employees is social contributions incurred by employers in order to secure for their employees the entitlement to social benefits. Employers' social contributions may be either actual or imputed.

Employers' actual social contributions consist of payments made by employers for the benefit of their employees to insurers (social security funds and private founded schemes). These payments cover statutory, conventional, contractual and voluntary contributions in respect of insurance against social risks or needs. Although paid directly by employers to the insurers, these employers' contributions are treated as a component of the compensation of employees, who are then deemed to pay them over to the insurers. Employers' imputed social contributions comprise payments by employer to employees during the absence from work due to sickness, accidents, etc.

In regional accounts the employers' social contributions are calculated at the standard rate (before 2001 of 15.9%, since 2002 of 16.1%) of employees' gross wages. To amount of employers' social contributions are added the premiums for voluntary, supplementary pension insurance paid by employers. Supplementary pension insurance is based on a contract of a pension plan financed by the employer. The data source for supplementary pension insurance is income tax declarations.

## 5.5.4 Property income, receivable D.4

### 5.5.4.1 Introduction

Property income is the income receivable by the owner of a financial asset or a tangible non-produced asset in return for providing funds to, or putting the tangible non-produced asset at the disposal of, another institutional unit. Property incomes are classified in the following way in the system of accounts:

- interest,
- distributed income of corporations,
  - dividends,
  - withdrawals from income of quasi-corporations,
- reinvested earnings on direct foreign investment,
- property income attributed to insurance policy holders,
- rents.

The calculation of household property income by region is done on the basis of the distribution of interest, dividends and property income attributed to insurance policy holders.

#### **5.5.4.2 Interest D.41**

Interest is the amount that the debtor becomes liable to pay to the creditor over a given period of time without reducing the amount of principal outstanding. This form of property income is receivable by the owners of certain kinds of financial assets: deposits, securities other than shares, loans, other accounts receivable.

For the calculation of interest received by region the data on interest received from cash deposits in commercial banks are used. The data source is income tax declarations which in the 1999–2004 period the interest were defined as interest on loans granted to natural and legal persons. In 2005 the data on interest were more comprehensive and included interest received on granted loans, interest on cash deposits in commercial banks and interest from mutual funds. According to the new Personal Income Tax Act (Official Journal of the Republic of Slovenia No. 10/2008), income tax declarations do not include the category of interest received; indeed, these data can be obtained from income tax control data, namely from payers' declarations. On the basis of the payers' data the calculations for 2006 and 2007 were done. Interest is calculated by the bottom-up method.

#### **5.5.4.3 Dividends D.42**

Dividends are a form of property income received by owners of shares to which they become entitled as a result of placing funds at the disposal of corporations.

For the calculation of dividends received by region the data on dividends received from income tax declarations are used. Before 2005 these data were defined as profit sharing in companies other than in partnerships and profit sharing in partnerships in Slovenia or abroad. In 2005 the category was defined as dividends on the basis of equities in companies, cooperatives and mutual funds. For the following years the data on dividends are obtained from control income tax data (payers' declarations). Dividends received are through the entire period calculated by the bottom-up method.

#### **5.5.4.4 Property income attributed to insurance policy holders D.44**

Property income attributed to insurance policy holders corresponds to total primary incomes received from the investment of insurance technical reserves. Since technical reserves are assets of insurance policy holders, the receipts from investing them are shown in the accounts as being paid by insurance companies and pension funds to the policy holders in the form of property income attributed to insurance policy holders.

Regionalization of the property income attributed to insurance policy holders is done with the distribution key which is calculated on the basis of the data on insurance premiums paid in each region. Each year SURS obtains data on premiums paid at the level of insurance establishments from four biggest insurance companies; in 2007 they represented a 70% market share on the Slovene insurance market.

#### **5.5.5 Property income, payable D.4**

Property income-payable contains interest on loans. In the allocation of primary income account the category property income-payable represents the lowest share, namely amounts to less than 2% of net balance of primary income. This category is distributed by region with the distribution key which is calculated on the basis of the estimates of the interest paid on dwelling loans. Estimation is done on the basis of data from the statistical survey on living conditions (EU-SILC) which contains the data on dwelling mortgage loans, and from income tax declarations.

#### **5.5.6 Net balance of primary income B.5**

Net balance of primary income is the balancing item of the allocation of primary income account. It is calculated as a sum of net operating surplus/mixed income, compensation of employees, property income-receivable, less property income payable.

## 5.6 Secondary distribution of income account

### 5.6.1 Introduction

The secondary distribution of income account shows the redistribution of the balance of primary income of an institutional sector among current taxes on income and wealth, social contributions and benefits (other than social transfers in kind), and other current transfers. The balancing item is disposable income.

Household incomes which are shown in the regional secondary distribution of income account are: net balance of primary income account (it is transferred from the allocation of primary income account), social benefits in cash and other current transfers. Social benefits in cash comprise pensions and other social transfers such as parental allowances, sickness and disability benefits, allowances for unemployment and family allowances. Other current transfers comprise non-life insurance claims and miscellaneous current transfers which include scholarships, gains on lottery and gambling, money charities, government aid in case of natural disasters, remittances from relatives abroad, etc.

Household expenditure in the secondary distribution of income accounts are: current taxes on income, social contributions and other current transfers. The largest share of household expenditure is represented by social contributions. These are all contributions paid by employers, employees, self-employed and individual farmers to social security funds. The next financial liability for households is represented by current taxes. These comprise income tax and other current taxes (taxes on ownership of buildings, holiday houses, boats, license for vehicles registration, etc.). The lowest share of household expenditure in the secondary distribution of income account is represented by other current transfers that comprise non-life insurance premiums and miscellaneous current transfers (payments for lottery and gambling, fines and penalties, paid memberships and contributions to political parties, associations and similar organizations, etc.).

The balancing item of the account is net disposable income; households use it either for final consumption or saving. Table 5.9 shows the secondary distribution of income account for the household sector by region at the NUTS 2 level.

**Table 5.9 Secondary distribution of income account of the household sector by region, 2007, mio EUR**

	Slovenia	Vzhodna Slovenija	Zahodna Slovenija
Net balance of primary income	21,756	10,680	11,076
Social benefits in cash	5,374	2,733	2,641
Other current transfers, receivable	710	375	335
Current taxes on income, wealth, etc., payable	2,075	917	1,158
Social contributions	5,132	2,465	2,667
Other current transfers, payable	974	494	480
Net disposable income	19,657	9,912	9,746

### 5.6.2 Social transfers other than social transfers in kind D.62

Social transfers are transfers to households in cash intended to relieve them from the financial burden of risks or needs. They could be made through collectively organized schemes or outside such schemes by government units and NPISHs (Non-profit institutions serving households). The risks or needs, which according to ESA 1995 may give rise to social benefits, are:

- sickness,
- invalidity, disability,
- occupational accident or disease,
- old age,
- survivors,
- maternity,

- family,
- promotion of employment,
- unemployment,
- housing,
- education,
- general neediness.

Social transfers in cash are calculated by region by the bottom-up method with the use of all individual data from the Ministry of Labour, Family and Social Affairs (MDDSZ) and the Pension and Disability Insurance Institute (ZPIZ) which could be regionalized. These data are collected in the framework of the statistical survey on expenditure and receipts of social protection schemes.

Data from the Pension and Disability Insurance Institute (ZPIZ) are:

- pensions,
- holiday bonuses,
- contributions concerning health insurance,
- minimum pension support,
- disability allowance.

Data from the Ministry of Labour, Family and Social Affairs (MDDSZ) are:

- child allowance,
- birth grant,
- child care allowance,
- unemployment allowance,
- social assistance in cash,
- income support,
- parental compensation.

Data on social transfers are available also in income tax declarations. Despite the fact that the use of data from income tax declaration would be in technical terms more convenient, due to incomplete coverage it would be inappropriate. The comparison of social transfers in both data sources is shown in Table 5.10. The table shows that the income tax declarations in 2007 covered less than 40% of pensions and only about a third (35%) of other social transfers, also the regional structure differs.

**Table 5.10 Social benefits in ZPIZ and MDDSZ data and income tax declarations, 2007**

	ZPIZ and MDDSZ data		Income tax declarations	
	mio EUR	structure (%)	mio EUR	structure (%)
<b>Pensions</b>				
Vzhodna Slovenija	1,617	49.2	564	45.8
Zahodna Slovenija	1,668	50.8	669	54.2
Total	3,285	100.0	1,233	100.0
Coverage (%)	100.0		38.0	
<b>Other social transfers</b>				
Vzhodna Slovenija	689	55.2	237	53.8
Zahodna Slovenija	560	44.8	204	46.2
Total	1,249	100.0	441	100.0
Coverage (%)	100.0		35.0	

From the data in Tables 5.9 and 5.10 we can also see the adjustment to national accounts figures. In 2007 it amounted to EUR 840 million which represents approximately 16% (national accounts data EUR 5,374 million, data in the data source EUR 4,534 million, of which EUR 3,285 million of pensions and EUR 1,249 million of other social transfers). One of the reasons for the discrepancy lies in the fact that not all data on social transfers are available at individual level, e.g. allowances for large family, partial payment for lost income, payment of social contributions for part-time employment, payment of social contributions for bringing up four or more children, etc. Consequently, these types of social transfers can not be calculated by region with the bottom-up method.

### 5.6.3 Other current transfers, receivable D.7

#### 5.6.3.1 Non-life insurance claims D.72

Non-life insurance claims represent the claims due under contracts in respect of non-life insurance; that is the amounts which insurance companies are obliged to pay in settlement of injuries or damage suffered by persons or goods.

Non-life insurance claims are calculated by the bottom-up method on the basis of data obtained via the questionnaire sent to four biggest insurance companies. These four insurance companies represent more than a 90% market share in the area of non-life insurance (property insurance and health insurance). SURS collects the data annually, namely since 2005. The calculation for the previous years is done on the basis of the structure from 2005.

#### 5.6.3.2 Miscellaneous current transfers, receivable D.75

Miscellaneous current transfers that households receive are:

- current transfers between households: all current transfers in cash and in kind made or received by resident households to or from other resident or non-resident households. In particular, these comprise remittances by emigrants or workers permanently settled abroad (or working abroad for a year or longer) to members of their family living in their country of origin, or by parents to children in another location;
- payments of compensation: current transfers paid by institutional units to other institutional units in compensation for injury to persons or damage to property caused by the former, excluding payments for non-life insurance claims. Payments of compensation could be either compulsory payment awarded by a court of law, or ex gratia payments agreed out of court. In Slovenia these payments represent government payments to households which are denationalization beneficiaries;
- gains on lotteries and gambling;
- others: scholarships and premiums payments on saving which government in intervals pays to households as a reward for saving in a certain period (the National Savings Scheme).

For the calculation of household income from miscellaneous current transfers by region the data on received scholarships and gains on lotteries and gambling are used. Miscellaneous current transfers by region are distributed by the combined method because both methods are used; the values of gains on lotteries and gambling are distributed with the distribution key (the top-down method) while scholarships are distributed by the bottom-up method.

Gains on lottery and gambling by region are distributed with the distribution key which is calculated on the basis of Lottery of Slovenia data. It provides the data of payments by the place of business unit or agent (units of the Lottery of Slovenia, post offices or Petrol gas stations).

Scholarships by region are calculated by the bottom-up method, namely from individual data of SURS's statistical survey on scholarships. The most important data from the survey are monthly amounts of scholarship for December of the current school year. When calculating the scholarships, it is important to pay attention to:

- actual residence of students and appropriate distributing (if the region of permanent residence differs from the region of school and if the student lives outside his/her household, e.g. in students' campus, at relatives or in rented flat). According to methodology requirements, students (or their incomes) who live outside their home region more than a year have to be treated as the residents of the host region;

- at calculating the annual value of scholarship one has to take into account the fact that pupils of the last class of upper secondary schools (i.e. seniors) receive scholarship only ten months.

#### 5.6.4 Current taxes on income, wealth, etc., payable D.5

##### 5.6.4.1 Introduction

Current taxes on income, wealth, etc., cover all compulsory, unrequited payments, in cash or in kind, levied periodically by general government and by the rest of the world on the income and wealth of institutional units, and some periodic taxes which are assessed neither on the income nor on wealth. Current taxes on income, wealth, etc., are divided into:

- taxes on income,
- other current taxes.

##### 5.6.4.2 Taxes on income D.51

Taxes on income consist of taxes on incomes, profits and capital gains. They are assessed on the actual or presumed incomes of individuals, households, corporations or NPISHs. They include taxes assessed on holdings of property, land or real estate when these holdings are used as a basis for estimating the income of their owners.

Taxes on households' income by region are calculated by the bottom-up method on the basis of data on assessed taxes on income; they have the largest share in the structure of income taxes paid by households. Income tax declarations cover all types of incomes which are mentioned above, except taxes on gains on lottery and gambling. Taxes on gains on lottery or other games of chance are assessed and paid by the organizer of the games.

The basis for the calculation of the assessed households' income tax is data of DURS. The data sets which DURS transmits to SURS have increased over the years, especially after 2005. The system of assessing the income tax is a consequence of legislation, especially enforcement of the Personal Income Tax Act from 2004 (Official Journal of the Republic of Slovenia No. 54/2004).

Since 2005 individual data on assessed tax are available at SURS, therefore the calculation consists only of the aggregation of the data by region. Also distributing and summing the data is simple because they can be distributed by the codes of administrative units where the tax declaration was delivered. They also correspond to the administrative unit of the persons' residence.

For the previous years the assessed tax was calculated by the same procedure as it is calculated by DURS but with less available data. Insufficient were data on acknowledged tax relief and incomes from abroad.

Table 5.11 presents the data on assessed income tax which are used in the calculation of households' tax on income by region and the data on households' taxes on income calculated at the national level. In 2000 and 2001 the regional figures were higher than the figures at the national level, presumably due to lack of data in the data source in that period. For 2000 and 2001 there are no available data on tax relief for supporting family members, and for 2002, 2003 and 2004 there are no available data for particular tax relief. Another reason for discrepancy between the data in regional calculation and national accounts data is better coverage in national accounts data, namely inclusion of the taxes of income of unincorporated enterprises, taxes on lottery and gambling and taxes on copyrights.

**Table 5.11 Taxes on income of the household sector in national accounts and taxes on income in regional accounts data source, 2000–2007, mio EUR**

	2000	2001	2002	2003	2004	2005	2006	2007
Taxes on income in national accounts	1,116	1,266	1,406	1,520	1,647	1,643	1,846	1,956
Taxes on income in regional accounts data source	1,180	1,345	1,335	1,460	1,588	1,603	1,697	1,774

**Table 5.12 Structure of taxes on income by region, 2000–2007, %**

	2000	2001	2002	2003	2004	2005	2006	2007
Vzhodna Slovenija	42.5	42.2	42.3	41.6	42.4	42.7	43.2	43.5
Zahodna Slovenija	57.5	57.8	57.7	58.4	57.6	57.3	56.8	56.5
Slovenia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

#### 5.6.4.3 Other current taxes D.59

Other current taxes represent less than 5% of all current taxes paid by households. In national accounts they are represented by these types of taxes:

- taxes on the ownership of buildings,
- taxes on holiday houses,
- taxes on boats,
- registration fee for ownership or use of vehicles, boats or aircraft of natural persons.

Distribution of other current taxes by region is done with the distribution key which refers to registration fee for ownership or use of vehicles, boats or aircraft of natural persons. This type of tax represents the majority of other current taxes (approximately 90%). The distribution key is calculated on the basis of records on registered vehicles; the database of the Ministry of the Interior includes the data on the number of registered vehicles distributed by administrative units of owners' residence.

#### 5.6.5 Social contributions D.61

Social contributions comprise actual and imputed social contributions. Actual social contributions are of three types:

- employers' social contribution: contributions which are paid by employees to social security funds, insurance companies or autonomous as well as non autonomous pension funds which administer social security schemes to secure social benefits for their employees;
- employees' social contribution: social contributions payable by employees to social security, private founded and unfounded schemes;
- social contribution by self-employed and non-employed persons: social contributions payable for their own benefit by persons who are not employees – namely, self-employed persons (employers or own-account workers) or non-employed persons.

Imputed social contributions represent the counterpart to social benefits (less eventual employees' social contributions), paid directly by employers to their employees or former employees and other eligible persons (i.e. not linked to employers' actual contributions). Imputed social contributions are: benefits due to sickness or accidents, due to waiting for work, due to the notice period, birth, marriage, death, benefits at retirement and purchase of seniority period, benefits to permanently redundant workers.

The data source for the calculation of households' social contributions is income tax declarations and the data of ZPIZ. The total value of social contributions is distributed by the top-down method on the basis of the following data on actual social contributions:

- employers' social contributions: they are calculated by the standard rate of 16.1% of gross wages of employees. To these, premiums of voluntary pension insurance paid by employers are added;
- social contributions of employed and self-employed from income tax declarations (sum of all social contributions of all types of incomes of which social contributions are paid, except contributions from pensions). To these social contributions the incomes from abroad are added;
- contributions which are paid by the recipients of pensions. Data source for these data is ZPIZ.

**Table 5.13 Social contributions in national accounts and in the regional accounts data source, 2000–2007, mio EUR**

	2000	2001	2002	2003	2004	2005	2006	2007
Social contributions in national accounts	2,881	3,266	3,600	3,877	4,190	4,442	4,722	5,132
Social contributions in the regional accounts database	2,626	2,961	3,284	3,562	3,815	4,067	4,335	4,670
Coverage (%)	91.2	90.7	91.2	91.9	91.9	91.6	91.8	91.0

The data in Table 5.13 show that the value of social contribution in the regional accounts database is quite close to the value in national accounts since the coverage over the entire period is more than 90%. The reason for the difference is that the income tax declarations do not include all households' benefits and contributions in total (e.g. the income tax declaration is not delivered by persons whose income is under a certain threshold). In addition, the income tax declaration does not cover social contributions paid by government to socially deprived persons (recipients of social assistance in cash).

## 5.6.6 Other current transfers, payable D.7

### 5.6.6.1 Net non-life insurance premiums D.71

Net non-life insurance premiums are premiums payable under policies taken out by institutional units. The policies taken out by individual households are those taken out on their own initiative and for their own benefit, independently of their employers or government and outside any social insurance scheme.

Net non-life insurance premiums are calculated on the basis of data gathered from four biggest insurance companies. These insurance companies have more than a 90% market share in the field of non-life (property and health) insurance. SURS collects the data annually since 2005. The calculation for years before 2005 is done on the basis of the 2005 structure.

### 5.6.6.2 Miscellaneous current transfers, payable D.75

Miscellaneous current transfers payable by households comprise:

- current transfers between households: all current transfers in cash or in kind made or received by resident households to or from other resident or non-resident households. In particular, these comprise remittances by emigrants or workers permanently settled abroad (or working abroad for a period of a year or longer) to members of their family living in their country of origin, or by parents to children in another location;
- current transfers to NPISHs: all voluntary contributions (except legacy), membership and financial support which NPISHs receive from households (also from non-resident households) and to a smaller extent from other units. The item includes regular membership and voluntary contributions paid by households to trade unions, political, sport, cultural, religious or similar organizations which are classified in the NPISHs sector;
- fines and penalties imposed on households by courts of law or quasi-judicial bodies;
- lotteries and gambling: payments of lottery tickets, payment in betting and other games of chance.

The calculation of miscellaneous current transfers (payable) by region is done on the basis of two distribution keys, namely for:

- lotteries and gambling,
- current transfers of households to NPISHs.

On the basis of annual accounting statements of two largest lottery organizations (the Lottery of Slovenia and the Sport's Lottery) it was estimated that households' payments for lotteries and gambling represent approximately 30% of miscellaneous current transfers in total. This third of miscellaneous current transfers is distributed by the distribution key which is calculated on the basis of data from the Lottery of Slovenia on values of payments by different sales units.

The rest of the value of miscellaneous current transfers (70%) is distributed on the basis of the data on households' payments to NPISHs. Data on memberships paid to political parties and other NPISHs are gathered from the income tax declarations, namely from two elements which represent tax relief at the tax assessment procedure:

- payments in cash and values of gifts in kind for humanitarian, cultural, educational, scientific, sports, ecological and religious purposes when they are paid to persons who are under legal status organized for performing such activities and payments in cash and values of gifts for organizations of disabled persons;
- membership fees paid to political parties and trade unions.

These data were available until 2007. By the new Personal Income Tax Act (Official Journal of the Republic of Slovenia No. 10/2008) a part of the personal income tax (from 0.1% to 0.5%) may be given or donated to certain NPISHs but there is no accurate data on the amount of these funds. Therefore, the distribution key for 2007 is done on the basis of different data:

- data on paid financial contributions and memberships in cash for 2006,
- data on funds for non-profit institutions financed by local authorities,
- data on assessed income tax.

### 5.6.7 Net disposable income B.6

Net disposable income is the balancing item of the secondary distribution of income account. It is calculated by adding social benefits and other current transfers receivable to primary income and by deducting taxes on income, social contributions and other current transfers.