

DESCRIPTION OF SOURCES AND METHODS USED TO COMPILE NON-FINANCIAL NATIONAL ACCOUNTS

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ABBREVIATIONS:

APIF – Agency for intermediation, information and finance

BHAS – Agency for Statistics of Bosnia and Herzegovina

B&H – Bosnia and Herzegovina

CEA – Classification of Economic Activities

ESA 95 – European System of National Accounts

EU – European Union

EU NACE Rev 1.1 – Classification of Economic Activities in the European Community

FB&H – Federation of Bosnia and Herzegovina

FISIM – Financial intermediation services indirectly measured

GDP–Gross Domestic Product

GVA – Gross Value Added

HBS – Household Budget Survey

NOE – Non-observed economy

NPISHs – Non-profit institutions serving households

RS – Republika Srpska

RSIS – Institute of Statistics of Republika Srpska

SBR – Statistical business register

SNA 93 – System of National Accounts

VAT – Value Added tax

FOREWORD

The publication "Description of sources and methods used to compile non-financial National accounts" is a special publication of the Institute of statistics, created as the result of the work within the IPA 2007 - regional project (Multi-beneficiary Programme on Statistics). The structure and content of the publication are based on rules and principles prepared by EUROSTAT.

The publication consists of two parts.

The first part of the publication contains a detailed review of sources and methods used in the compilation of GDP at current prices.

The second part of the publication contains information on the annual calculation of Gross Domestic Product at constant prices.

We hope that this publication will provide users assistance in better understanding the content and calculation method of the Gross Domestic Product and Gross Value Added.

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INTRODUCTION

Republika Srpska Institute of Statistics is the only competent institution in Republika Srpska for calculation of Gross Domestic Product, as the most important macroeconomic aggregate, whose calculation is based on the SNA 93 and ESA 95 methodological concepts.

During 2008 and 2009 was implemented the IPA 2007 - regional project (Multi-beneficiary Programme on Statistics), which , among other things, provide technical support in compilation of the publication, whose form is defined in the same way as form for the member states of the European Union. Compilation of the publication "Description of sources and methods used to compile non-financial National accounts" was based on EUROSTAT general references, which meant providing consistency, transparency, a mutual structures and numerical illustrations.

The main focus of the publication is on detailed description of sources and methods used in calculation annual macroeconomic aggregates at current prices, while description of the calculation at constant prices, as well as calculation by income approach is represented at the lower level. Also, the information on coverage, description of statistical and administrative sources, followed by description of transformation obtained data from mentioned sources to results based on national accounts concepts, including conceptual and other adjustments are given in this publication.

PART A**ANNUAL NATIONAL ACCOUNTS AT CURRENT PRICES****CHAPTER 1****PRODUCTION APPROACH, CURRENT PRICES, 2007****1.1 GDP BY THE PRODUCTION APPROACH**

The calculation process of Gross Domestic Product (GDP) by production approach can be explained in two steps. In the first step, Gross Value Added (GVA) at basic prices of all activities is calculated as the difference between output at basic prices and intermediate consumption at purchasers' prices. Allocation of FISIM (Financial Intermediation Services Indirectly Measured) by activities is not done, so entire GVA is corrected for that amount. In the second step, taxes on products are added, while subsidies on products are deducted from the total GVA for all activities, in order to get GDP at market prices. Subsidies on products and taxes on products are not classified by activities and institutional sectors. Table 1.1 shows main categories of GDP 2007 by production approach. In Table 1.2 output, intermediate consumption, and GVA are shown at the level of A60 Classification of Economic Activities (CEA) and by institutional sectors.

First results for GDP by production approach at the level of A60 CEA are published in the middle of July of the current year, while final data are published in November of the same year as release. In addition, final data are published in bulletin at the end of current year. CEA is consistent and in accordance with the European Classification of Economic Activities NACE Rev.1.1.

Complete calculation of GDP is based on the concept of the System of National Accounts 1993 (SNA 93) and European System of National Accounts 1995 (ESA 95).

1.1 GDP by production approach, 2007

	thous. KM	Structure, %
Output at basic prices	12 199 775	165.9
Less : Intermediate consumption at purchasers prices	6 362 685	86.5
GROSS VALUE ADDED	5 837 090	79.4
Taxes on products	1 554 121	21.1
Less : Subsidies on products	40 226	0.5
GROSS DOMESTIC PRODUCT	7 350 985	100.0

1.2 Output, intermediate consumption and GVA by activities and institutional sectors, 2007

	Output	Intermediate consumption	Gross Value Added	Structure of Gross Value Added
	thous. KM			%
A Agriculture, hunting and forestry	1 998 400	1 080 601	917 799	15.7
01 Agriculture, hunting and related service activities	1 800 919	982 696	818 223	14.0
02 Forestry, logging and related service activities	197 481	97 905	99 576	1.7
B 05 Fishing	12 917	7 631	5 286	0.1
C Mining and quarrying	272 768	146 871	125 897	2.2
10 Mining of coal and lignite, extraction of peat	88 082	30 941	57 141	1.0
13 Mining of metal ores	152 540	98 039	54 501	1.0
14 Other mining and quarrying	32 146	17 891	14 255	0.2
D Manufacturing	2 433 199	1 758 496	674 703	11.6
15 Mfr. of food production and beverages	646 446	474 097	172 349	2.9
16 Mfr. of tobacco products	6 874	4 195	2 679	0.1
17 Mfr. of textiles	51 292	39 041	12 251	0.2
18 Mfr. of wearing apparel, dressing and dyeing of fur	66 949	38 424	28 525	0.5
19 Leather tanning and dressing: luggage, saddler handbags, shoes etc manufacture	56 738	20 390	36 348	0.6
20 Mfr. of wood and wood, cork, straw and plaiting mat. products	346 895	255 371	91 524	1.6
21 Mfr. of pulp, paper and paper products	83 476	70 563	12 913	0.2
22 Publishing, printing and reproduction of recorded media	60 723	36 414	24 309	0.4
23 Mfr. of coke, refined petroleum products and nuclear fuel	53 269	41 676	11 593	0.2
24 Mfr. of chemicals and chemical products	25 791	16 581	9 210	0.2
25 Mfr. of rubber and plastic products	77 172	54 458	22 714	0.4
26 Mfr. of other non-metallic mineral products	115 811	77 895	37 916	0.6
27 Mfr. of basic metals	263 213	213 446	49 767	0.8
28 Mfr. of fabricated metal prod., except machinery and equipment	274 141	198 230	75 911	1.3
29 Mfr. of machinery and equipment n.e.c.	21 284	13 891	7 393	0.1
30 Mfr. of office machinery and computers	21 951	16 647	5 304	0.1
31 Mfr. of electrical machinery and apparatus n.e.c.	53 768	37 417	16 351	0.3
32 Mfr. of radio, television and common. equipment and apparatus	12 784	8 110	4 674	0.1
33 Mfr. of medical, precision and optical instr., watches and clocks	17 238	10 970	6 268	0.1
34 Mfr. of motor vehicles, trailers and semi-trailers	28 205	21 564	6 641	0.1
35 Mfr. of other transport equipment	11 715	4 652	7 063	0.2
36 Mfr. of furniture, manufact n.e.c.	89 098	60 589	28 509	0.5
37 Recycling	48 366	43 875	4 491	0.1
E Electricity, gas and water supply	613 887	303 026	310 861	5.3
40 Electricity, gas, steam and hot water supply	555 817	281 133	274 684	4.7
41 Collection, purification and distribution of water	58 070	21 893	36 177	0.6
F 45 Construction	1 105 806	707 675	398 131	6.8
G Wholesale and retail trade	1 525 848	655 460	870 388	14.9
50 Sale, maintenance and repair of motor vehicles	155 650	53 709	101 941	1.7
51 Wholesale trade and commission trade	709 714	336 255	373 459	6.4
52 Retail trade, except of motor vehicles, repair	660 484	265 496	394 988	6.8
H 55 Hotels and restaurants	206 856	90 187	116 669	2.0
I Transport, storage and communication	847 923	389 801	458 122	7.8
60 Land transport	294 939	175 372	119 567	2.0
61 Water transport				
62 Air transport	647	575	72	0.0
63 Supporting and auxiliary transport activities, travel agencies activities	120 052	91 842	28 210	0.5
64 Post and telecommunications	432 285	122 012	310 273	5.3
J Financial intermediation	336 055	138 670	197 385	3.4
65 Financial intermed., exc. insur. and pension funding	273 929	100 059	173 870	3.0
66 Insurance and pension funding	50 770	34 888	15 882	0.3
67 Activities auxiliary to financial intermediation	11 356	3 723	7 633	0.1
K Real estate, renting and business activities	1 029 137	342 994	686 143	11.8
70 Real estate activities	449 589	76 961	372 628	6.4
71 Renting of machinery and equipment	6 215	2 299	3 916	0.1
72 Computer and related activities	24 307	10 059	14 248	0.2
73 Research and development	7 971	3 985	3 986	0.1
74 Other business activities	541 055	249 690	291 365	5.0
L 75 Public administration and defence, compulsory social security	956 953	322 591	634 362	10.9

1.2 Output, intermediate consumption and GVA by activities and institutional sectors, 2007 (continued)

	Output	Intermediate consumption	Gross Value Added	Structure of Gross Value Added
	thous. KM			%
M 80 Education	288 288	55 678	232 610	4.0
N 85 Health and social work	364 640	117 178	247 462	4.2
O Other public, community, social and personal service activities	207 098	99 449	107 649	1.8
90 Sewage and refuse disposal and similar activities	38 232	11 829	26 403	0.4
91 Activities of membership organizations n.e.c.	66 597	37 700	28 897	0.5
92 Recreational, cultural and sporting activities	98 183	48 576	49 607	0.8
93 Other service activities	4 086	1 344	2 742	0.1
FISIM (plus / minus)		146 377	146 377	2.5
GROSS VALUE ADDED	12 199 775	6 362 685	5 837 090	100.0
S.11 Non-financial corporations	6 610 474	3 903 196	2 707 278	46.4
S.12 Financial corporations	328 967	136 191	192 775	3.3
S.13 General government	1 550 531	470 566	1 079 965	18.5
S.14 Households	3 595 091	1 641 150	1 953 941	33.5
S.15 Non-profit institutions serving households	114 712	65 204	49 508	0.8

1.2 THE REFERENCE FRAMEWORK

1.2.1 DATA SOURCES

1.2.1.1 AGENCY FOR INTERMEDIATION, INFORMATICS AND FINANCE - APIF

Main data sources for legal entities are annual financial statements (administrative sources). Annual financial statements are most important data source for GDP calculation. They consist of Profit and loss account, Balance sheet, and Accounting Annex for legal entities. This data source excludes only the households sector (entrepreneurs), for which there is still no legal framework for obligatory submission of annual financial statements. Agency for intermediation, informatics, and finances – APIF, is in charge of collection and coverage of Annual financial statements. APIF delivers them in the *Access* format to the Institute for Statistics of Republika Srpska (RSIS), at the individual subject level, in April of the current year for the previous year. After the data are taken from APIF, first of all, the APIF register is compared with the statistical administrative register, to control coverage and check the activities, which are then, on the basis of the principal activity of an institutional unit with location in Republika Srpska (RS), grouped by activities of the CEA.

APIF collects annual financial statements for the following legal entities:

- Non-financial enterprises;
- Non-profit institutions, associations;
- Banks and insurance companies;
- Public enterprises and agencies (indirect budget users, such as hospitals, etc.).

All financial statements contain elements of revenues and expenditure, i.e. necessary elements for the calculation of output and intermediate consumption by data sources.

1.2.1.2 BRANCH STATISTICS

Branch statistics within RSIS are also data source for:

- Agriculture statistics – a part that relates to individual agriculture;
- Prices statistics and industry statistics for the constant prices calculation;
- Non-observed economy (NOE) estimates using labour statistics.

1.2.1.3 RS MINISTRY OF FINANCE

RS Ministry of Finance delivers consolidated financial statements in electronic form to:

- RS Government;
- Municipalities;
- Compulsory social security funds;
- Public education.

Above-mentioned reports comprise items of income, expenditure, compensation of employees, capital expenditure, as well as detailed lists of taxes and subsidies.

1.2.1.4 STATISTICAL SURVEYS

Due to the lack of financial statements for entrepreneurs, a statistical ad hoc survey was carried out for the components relevant to the GVA calculation of this segment of economy. At the end of 2008, the ad hoc survey for entrepreneurs was conducted, only for 2007. Survey was based on the sample of entrepreneurs with five or more employees, and it included all necessary and relevant categories for the GDP calculation. On the basis of the data from the entrepreneurs' sample, aggregation of data to the total number of registered entrepreneurs was done, using data from labour statistics.

New Law on Accounting also regulates the area of entrepreneurship and entrepreneurs that will have to report on their business through financial statements. Then, there will be no need to conduct ad hoc survey.

Household Budget Survey (HBS) as statistical survey is used for individual construction estimates and real rent estimates. Until 2007, individual construction was estimated on the basis of construction statistics and the number of issued building permits, which were obtained from the municipality level of government. Within the OECD project in 2005, *ad hoc* survey "Individual construction" was conducted, for the reference period 1996-2005. It showed dynamics of building of individual houses and structure of output. Obtained results showed that, for some years, estimates of output for individual construction were too high and additional corrections were not necessary.

1.2.1.5 AGENCY FOR STATISTICS OF BOSNIA AND HERZEGOVINA

Agency for statistics of Bosnia and Herzegovina (BHAS) collects and processes financial statements of B&H central agencies belonging to general government sector. After calculating the GVA elements, BHAS delivers them to the entities, according to established coefficients (31.7% belongs to RS, 64.7% to FB&H, and 3.6% to the Brcko District). BHAS delivers to RSIS the part which belongs to RS and which refers to the central state level, as already calculated categories of output, intermediate consumption, GVA, consumption of fixed capital, compensation of employees, number of employees, and a part of taxes on products.

BHAS calculates the value of the imputed rent at current and constant prices.

1.2.1.6 STATISTICAL BUSINESS REGISTER

Statistical business register (SBR) is the result of joint work of the three statistical institutions in B&H. European Union (EU) supported the development of B&H statistical system through the development of SBR as one of the components within the Twinning project completed at the end of 2008.

Through the development of SBR, online application for browsing and online application for statistical surveys were designed; SBR units and their variables were formed (according to previously established procedures). For now, SBR units are updated from administrative sources (Administrative register of RSIS and RS Tax Authority). SBR at this level of development is still not useful for national accounts, but it is expected that it will be fully functional in near future. The update of SBR from other administrative sources, as well as from statistical activities, is planned for the future period.

1.2.2 MARKET AND NON-MARKET UNITS

Legal entities as institutional units are divided into market and non – market producers. Market producers sell their goods and services to other units for economically valuable prices, which covers at least 50% of their production costs. This implies that if less than 50% of production costs is covered by sale, then an institutional unit is a non – market producer.

1.2.3 OUTPUT AND PRODUCTION BOUNDARY

Output consists of all goods and services produced during the accounting period (calendar year) within production boundary. According to the ESA 95 definitions, production boundary comprises production destined for the market, production for own needs, and other non - market production. Production of goods and services for own use, which is included in GDP calculation, refers to:

- Building of a dwelling for own account;
- Production and processing of agricultural products;
- Housing services produced by owner-occupiers.

Products retained for own final use can only be produced by the household sector.

Output is calculated by two methods, by production method, or as a sum of costs that occur during the production process. With market producers, output consists of sums of revenues, changes in inventories, trade margin, subsidies on products, while for non-market producers costs method is used. Output is expressed at basic prices.

1.2.4 INTERMEDIATE CONSUMPTION

Intermediate consumption at purchasers' prices consists of :

- Goods and services that are used in the production process (costs of materials, fuel and energy costs, transport costs, rent, fares, presentations, financial transactions, etc.);
- Value of goods and services obtained from other local business units of the same institutional unit;
- Expenditure of using rented fixed assets;
- Membership fees and other charges given to non-profit institutions;
- Expenditures of research and development, staff training;
- Expenditure of procurement of work clothing necessary for work activities;
- Expenditure of non-life insurance;
- Financial Intermediation Services Indirectly Measured at the level of the overall economy – FISIM;
- Expenditure of procurement of tiny tools and inventory used during production process.

According to the accounting regulations of RS, lifetime longevity of assets which lasts one year represents the boundary between distinguishing and defining the intermediate consumption of goods and gross fixed capital formation into fixed assets.

1.2.4.1 CONCEPTUAL CORRECTIONS

Intermediate consumption is corrected for:

- Gross insurance premium;
- Allowances for employees;
- A part of tax expenditure.

Negative conceptual corrections consist of gross insurance premium and allowances for employees. In financial statements, the item, Cost of insurance premium, is a part of synthetic account of Non-material costs that comprises:

- Allowances for employees;
- Representation costs;
- Non-production services costs;
- Cost of insurance premiums;
- Costs of money transfers;
- Membership fees costs;
- Other non-material costs.

Using ESA 95 definition for non-life insurance services paid for by institutional units, conceptual correction of the above-mentioned item, Costs of insurance premium, is made. In order to register only service charges as intermediate consumption, paid gross premiums are corrected for collected claims that amount to 65% of costs of insurance premium, while 35% of the same item remains in intermediate consumption. Allocation of the mentioned item is done on the basis of estimates by national accounts experts.

Non-material costs item, in addition to the category of costs that make up intermediate consumption, comprises also a part of costs that relates to allowances for employees, such as:

- Per diems for business trips;
- Remuneration for field work;
- Remuneration for person's living away from home;
- Remuneration for employees' food at work;
- Allowances for transportation to and back from work.

In line with the ESA 95 methodology principles, national accounts experts have corrected a part of non-material costs that relates to allowances for employees, which has been done within the scope of negative conceptual correction. The part excluded from intermediate consumption is included into compensation of employees.

Positive conceptual correction relates to the part of costs of taxes that falls into item, Costs of taxes, in financial statements. Analysing that item through a direct contact with enterprises, it is concluded that in addition to other taxes on production, costs related to production process that should be included in the intermediate consumption have been entered under the same item (costs of

taxes). This is the reason why a conceptual correction has been made and a part of the item - Costs of taxes - is included into intermediate consumption.

All mentioned conceptual corrections were done for the first time for the GDP revision for 2007, and they will be used in future calculations. Corrections of data for 2005 and 2006 will be done, as well.

1.3 VALUATION

1.3.1 INTRODUCTION

In accordance with the basic accounting principles, data in annual financial statements that are used for the calculation of output components and intermediate consumption are on accrual basis. The exceptions are some data for direct budget units and funds at the level of municipalities and government, which are on the cash basis, such as taxes.

1.3.2 OUTPUT

Output is evaluated at basic prices, from which taxes on products are excluded, but subsidies on products are included. For non-market producers, the calculation of output by cost method equals the sum of consumption of the fixed capital, other taxes on production, compensation of employees, intermediate consumption, while other subsidies on production are deducted from it. Output for market producers is the sum of sale of products and services, sale of goods minus the purchase value of sold goods i.e. trade margin, changes in inventories of finished products and work-in-progress, as well as subsidies on products.

1.3.3 INTERMEDIATE CONSUMPTION

Intermediate consumption is evaluated at purchasers' prices. Intermediate consumption is calculated as a sum of costs of materials and raw materials, fuel and energy costs, costs of production services and non-material costs. Intermediate consumption is corrected for gross insurance premium by activities that are paid for by insured individuals.

1.3.4 GROSS VALUE ADDED

GVA at basic prices is equal to the difference between output at basic prices and intermediate consumption at purchasers' prices.

1.3.5 TAXES ON PRODUCTS

Taxes on products D.21 are obtained through B-2 report from the Ministry of Finances on annual basis, and are based on the cash basis. D.21 consists of Value Added Tax (VAT), excise duties, customs and import taxes, special taxes for overnight stay and taxes on lottery. Taxes on products will be explained in more detail in Chapter 1.23.

1.3.6 SUBSIDIES ON PRODUCTS

According to the budget statement, subsidies on products are evaluated as real transactions in a specific period. These budget data are balanced with the data on subsidies on products, obtained through financial statements from enterprises. Subsidies on products will be explained in more detail in Chapter 1.25.

1.3.7 CHANGES IN INVENTORIES

According to the financial statement Balance sheet, value of inventories for goods, raw materials and materials, work-in-progress and finished products are shown at the beginning and at the end of the accounting year at current prices. In national accounts, value of inventories by activities and type of inventories at the beginning and at the end of the accounting year are revaluated with the average price of that year. Changes in inventories are calculated as the difference between value at the end and value at the beginning of the year, by average prices. Changes in inventories of finished products and work-in-progress calculated in this way are included in the output calculation at current prices. Data sources for average prices are the Consumer price index and the Producer price index.

1.4 TRANSITION FROM PRIVATE ACCOUNTING AND ADMINISTRATIVE CONCEPTS TO ESA 95 NATIONAL ACCOUNTS CONCEPT

1.4.1 INTRODUCTION

Accounting rules and Chart of accounts in RS do not entirely meet the needs of national accounts, and do not provide for consistent use of ESA 95 methodology for the GDP calculation by production approach. This is why certain adjustments and adaptations of financial statement data are required to meet the needs of national accounts. An integral part of financial statements is an accounting Annex which has largely simplified the GDP calculation by production method. Accounting Annex has been designed by the staff from RSIS National Accounts department in cooperation with RS Association of Accountants and Auditors and the RS Ministry of Finances department, responsible for regulations and legislation of accounting profession.

1.4.2 NON-FINANCIAL SECTOR S11.

1.4.2.1 INTRODUCTION

Non-financial sector comprises enterprises which generate their income at the market. Annual financial statements for market enterprises are the most important data source for GDP calculation, making up around 45% of total GVA. Introducing accounting Annex has led to the improvement of financial statements, where categories of costs, compensation of employees, taxes on products and subsidies on products are better defined and extracted at the lower analytical level.

1.4.2.2 OUTPUT

Output is calculated by taking some of the items from the Profit and loss account:

- Revenue from sales of products and services at domestic and international market;
- Revenue from sales of commodities;
- Other revenue (income from rent and membership fees);
- Purchasing value of sold goods;
- Changes in inventories of finished products and work-in-progress;
- Subsidies on products.

After the data are taken over from APIF, analysis and control of the financial statements data are done, as well as entry control of certain items from more important enterprises, through direct contact with them; all of these with an aim to use ESA 95 methodology more accurately. The next step is further adjustments that relate to non-observed economy (NOE) and the data not accounted for in financial statements (underreporting, non-reporting, and statistical deficiencies) as will be explained in detail in section 3.2. Exhaustiveness adjustments to output amount to around 1.8% of the total output for enterprises.

1.4.2.3 INTERMEDIATE CONSUMPTION

Intermediate consumption is, in the first step, calculated according to data contained in Profit and loss account, which are:

- Costs of materials for production;
- Other materials costs;
- Fuel and energy costs;
- Production services costs;
- Non-material costs.

Because of inappropriate content of the Non-material costs item, which is explained in more detail in the section 1.2.4.1, and which includes allowances for employees and insurance premium costs, certain conceptual corrections are made, and these are corrections of gross insurance premium and allowances for employees, which are included in compensation of employees. In addition to this, conceptual corrections are made also for one part of costs for taxes. Conceptual corrections are explained in more detail in the section 1.2.4.1. At the end, the exhaustiveness adjustment is made for underreporting which is explained in detail in section 3.2.6.

1.4.3 FINANCIAL SECTOR S12.

1.4.3.1 INTRODUCTION

Financial sector includes financial enterprises and all financial institutions (commercial banks, the part of Central Bank, which belongs to RS, micro-credit organizations, privatization-investment funds, postal savings-bank and insurance companies).

Database with financial indicators for financial enterprises and financial institutions is delivered by APIF, except the part of Central Bank for which the data are delivered by BHAS.

1.4.3.2 OUTPUT

For the output calculation of banks, revenues and expenditure based on interest and fees are used. When it comes to insurance companies, we take total insurance premium, corrected with taken over damages and expenditure for technical reservations.

1.4.3.3 INTERMEDIATE CONSUMPTION

The calculation of intermediate consumption for financial enterprises is done in the same way as for all enterprises, which is in more detail explained in the section 1.4.2.3. For other financial institutions, except insurance companies and the part of the Central Bank, for calculation of intermediate consumption, we consider the following costs:

- Costs of fees and commissions;
- Costs of materials;
- Costs of production services;
- Non-material costs;
- Other costs;
- Different other costs.

As explained in the section 1.4.2.3, Non-material costs include also a part of allowances for employees, which are, as a conceptual correction, excluded from intermediate consumption of financial institutions but included in compensation of employees.

Calculation of intermediate consumption for the part of the Central Bank belonging to RS is obtained as already calculated category from BHAS.

For the calculation of intermediate consumption of insurance companies, apart from standard costs, we also include commissions' costs, other acquisition costs, reinsurance costs, other technical expenses, and non-technical expenses.

1.4.4 GENERAL GOVERNMENT S13.

1.4.4.1 INTRODUCTION

General Government sector consists of non-market enterprises, compulsory social security funds and government and their units as a direct budget user. There are two data sources, Budget Report for local and entity levels of government (direct budget users) and Report of compulsory social security funds and financial statements for public non-market enterprises (hospitals, medical centre, schools, etc.). Budget Report referring to revenues is based on cash principle, while the costs are on the accrual base. GVA calculation for this sector is done by cost method.

1.4.4.2 OUTPUT

Output for general government sector is calculated as a sum of intermediate consumption, compensation of employees, other taxes on production and consumption of fixed capital.

1.4.4.3 INTERMEDIATE CONSUMPTION

Intermediate consumption of the government sector consists of:

- Travelling expenses;
- Energy costs;
- Costs of communal services;
- Supply of material;
- Costs of transport services;
- Property renting;
- Costs of current maintenance;
- Costs of insurance and bank services;
- Contracted service.

Conceptual corrections, which are in more detail explained within the section 1.2.4.1, are made in intermediate consumption and consist of correction for gross insurance premium, correction for compensation of employees and correction for other taxes on production, where current transfers and other subsidies on production were taken into account.

1.4.5 HOUSEHOLD SECTOR S14.

1.4.5.1 INTRODUCTION

Household sector includes entrepreneurs, individual agriculture, individual construction, and imputed rent. As for entrepreneurs, there is no reliable source of data. They are still not required by law to submit annual financial statements with all necessary categories of revenues and expenditure. Number of submitted financial statements with the double-entry accounting is very small, so there are more of those who paid flat taxation. The data submitted for flat taxation are not sufficient to meet the national accounts needs. Until 2007, the calculation for this sector was done by experts' estimates of the number of entrepreneurs from labour statistics, which based their reports on the data from the Health Insurance Fund.

Households sector also includes individual agricultural production, which is based on the data from the agricultural statistics; individual construction based on the HBS 2007 data, as well as imputed rent.

1.4.5.2 OUTPUT

In order to further improve calculation for this segment of economy, the ad hoc survey for individual entrepreneurs for 2007 was conducted as it is explained in chapter 1.2.1.4. Output was calculated as a sum of sales, changes in inventories and own-account production for consumption. Sale in trade activity has been corrected for purchasing value of sold goods. Based on sample data on individual entrepreneurs, evaluation of data for the total number of registered individual entrepreneurs has been done, using data from labour statistics by activities.

1.4.5.3 INTERMEDIATE CONSUMPTION

Intermediate consumption for individual entrepreneurs is a sum of costs for materials, costs for services and other costs. Based on the sample data on individual entrepreneurs, evaluation of data for the total number of registered individual entrepreneurs has been done, using data from labour statistics by activities.

1.4.6 NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS S15.

1.4.6.1 INTRODUCTION

Non-profit institutions, which belong to the sector Non-profit institutions serving households (NPISHs), include different clubs and societies, cultural and other associations, trade unions and all other institutions, business activities of which are non-market. Main data source for non-profit institutions are financial statements based on accrual principle and provided by APIF. GVA calculation for this sector is done using costs method, as mentioned earlier for general government sector. Exhaustiveness adjustments in this sector refer to estimates for religious communities. Since religious communities are not obliged to submit financial statements, adjustments are made for their non-reporting.

1.4.6.2 OUTPUT

Output for NPISHs is calculated as a sum of intermediate consumption, compensation of employees, other taxes on production and consumption of fixed capital, i.e. costs method is used. Output is also increased for estimates of religious communities, as exhaustiveness adjustment.

1.4.6.3 INTERMEDIATE CONSUMPTION

Intermediate consumption of the NPISHs consists of:

- Costs of raw material;
- Costs of other material;
- Costs of fuel and energy;
- Costs of production services;
- Non-material costs.

Because of inappropriate content of the Non-material costs item, which is in more detail explained in the chapter 1.2.4.1, and which includes also allowances for employees and insurance premium costs, conceptual corrections are made: corrections of gross insurance premium and allowances for employees, which are included in compensation of employees. Conceptual corrections are

explained in more detail in the chapter 1.2.4.1. In the end, exhaustiveness adjustment is made for non-reporting for religious institutions, which is explained in detail in chapter 3.2.6.

1.5 THE ROLES OF DIRECT AND INDIRECT ESTIMATION METHODS

GDP calculation by production approach is mainly based on direct method, on annual financial statements available through APIF and RS Ministry of Finances and available statistical data sources. Annual financial statements, which usually cover all sectors except that of households, are available three or four months after the end of the calendar year. Calculation for the entrepreneurs is based on the ad hoc survey, which has been explained in more detail in the chapter 1.2.1.4.

1.6 THE ROLES OF BENCHMARKS AND EXTRAPOLATIONS

Benchmark and extrapolation methods are used for the estimate of GDP component for imputed rent. Estimate of value of imputed rent is based on OECD methodology. It was carried out within EUROSTAT-OECD Project for improving exhaustiveness of GDP estimates in Western Balkan Countries, in which BHAS and entity institutes participated. Estimate was done by user cost method, as the sum of estimated consumption of fixed capital, intermediate consumption, taxes on production and operating surplus. The estimate was made for 2004 (benchmark year), and after that annual series of data were made for the period 2000-2007, at current and constant prices. The calculation of imputed rent is done by BHAS, and then it is delivered to the entities.

1.7 MAIN APPROACHES TAKEN CONCERNING NON-OBSERVED ECONOMY

1.7.1 INTRODUCTION

During 2004, the Project on Non-observed economy (NOE) started in cooperation and organization of EUROSTAT and OECD. The project was focused on the improvement of exhaustiveness of sources for the GDP estimate. The project was implemented in two phases, using Tabular Approach to NOE estimate by types of non-exhaustiveness (from N1 to N7) for the period 2000-2007, and they were included in GDP calculation by production approach. Illegal activities were not included.

Total estimates of NOE for GDP 2007 amounted to KM 518 085 thousands forming 7.1 % of total GDP (illegal activities not included). The purpose of this part is to show main categories of adjustments for non-reporting, underreporting, unregistered activities of households, and for statistical deficiencies. Estimates for NOE will be explained in more detail in Chapter 3. In Table 1.3 the adjustments are shown by type of non-exhaustiveness.

1.3 Exhaustiveness adjustments by type, 2007

Type of mistakes, thous. KM	thous. KM
N1 Producers who deliberately avoid registration	5 823
N2 Illegal activities	
N3 Not obliged to register	109 920
N4 Legal persons not surveyed (non-reporting)	33 209
N5 Registered entrepreneurs not surveyed	
N6 Under-reporting	355 261
N7 Statistical deficiencies	13 872
TOTAL	518 085

1.3 Exhaustiveness adjustments by type, 2007 (continued)

	% of GDP
N1 Producers who deliberately avoid registration	0.1
N2 Illegal activities	
N3 Not obliged to register	1.5
N4 Legal persons not surveyed (non-reporting)	0.5
N5 Registered entrepreneurs not surveyed	
N6 Under-reporting	4.8
N7 Statistical deficiencies	0.2
TOTAL	7.1

1.7.2 N1 PRODUCERS WHO DELIBERATELY AVOID REGISTRATION

Adjustment for non-exhaustiveness type N1 has been very small, but it still exists. It has been included for entrepreneurs. Estimates were made using percentage to the output for the entrepreneurs, depending on the type of activity that they refer to. In the total exhaustiveness adjustments, type N1 participates with 1.1%. This is explained in more detail in the chapter 3.2.1.

1.7.3 N3 NOT OBLIGED TO REGISTER

Unregistered household activities make up an important and valuable part of adjustments, and they amounted to 21, 2 % of total exhaustiveness adjustments. These estimates refer to the following:

- House and flat renting (real rent);
- Private accommodation renting for tourists;
- Students' work;
- Copyrights' fees;
- Contractual work;
- Fishing for one's own needs.

N3 type of non-exhaustiveness is explained in more detail in the chapter 3.2.3.

1.7.4 N4 LEGAL PERSONS NON-REPORTING

Non-reporting rate for 2007 was 6,4 % of total exhaustiveness adjustments. Coverage in administrative data sources is quite good and also complete for Government and its units, as well as for financial corporations. Estimates for non-reporting of non-financial corporations exist, and it amounted to 1.1% of the total GVA for non-financial enterprises. As for NPISHs, non-reporting was 6.6% of GVA for that sector, and it refers to the non-reporting for religious institutions. More detailed explanation is provided in the chapter 3.2.4.

1.7.5 N6 UNDER-REPORTING

Underreporting for the year 2007 was 68.6 % of the total exhaustiveness adjustments. For the calculation of estimates for misreporting, the starting point was the analysis of output and GVA per capita. Estimate for misreporting for non-financial enterprises amounted to 7.5% of the total GVA for non-financial sector and for household sector it amounted to 7.7 % of the total GVA for that sector. This is explained in more detail in the chapter 3.2.6.

1.7.6 N7 STATISTICAL DEFICIENCIES

Statistical deficiencies are those adjustments done in the following sections: D-crafts, G-trade (motor-vehicles repair), H-hotels and restaurants, I-transport (taxis), N-private health care, and O-other services (hairdressers), and these refer to estimate of tips in these sections. In the total exhaustiveness adjustments, N7 type of non-exhaustiveness participated with 2.7%. This is explained in more detail in the chapter 3.2.7.

1.8 AGRICULTURE, HUNTING AND FORESTRY (A)

1.8.1 INTRODUCTION

Most part of agricultural activity is individual producers' production, which makes up 85.5% of the GVA for agriculture. Individual producers are not obliged to register. Agricultural and forestry enterprises and entrepreneurs make up the smaller part of GVA to this activity, and it amounts to 14.3 %. In the structure of enterprises, forestry makes up 75% of the GVA for enterprises. Subsidies that the government gives to the agricultural sector are very important. Table 1.4 shows output, intermediate consumption, and GVA to these activities separately for corporations, individual producers and entrepreneurs.

1.4 A Agriculture, hunting and forestry, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	1 998 400	1 080 601	917 799	100.0	15.7
Enterprises	301 477	170 550	130 927	14.3	2.2
Individual producers	1 687 749	902 949	784 800	85.5	13.5
Entrepreneurs	9 174	7 102	2 072	0.2	0.0

1.8.2 DATA SOURCES AND METHODS

For enterprises, data sources were annual financial statements (Profit and loss account, Balance sheet and Annex), while agricultural statistics has been used as a data source for individual sector. Data sources are further explained in chapter 1.2 and 1.4.

1.8.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Output calculation for the individual sector was done on the basis of physical indicators of production and average purchasers' prices at the level of agricultural crops, which are monitored by agricultural statistics. Main components of agricultural output have been: sale of agricultural products, subsidies on products, changes in inventories and trade margin. Output of agricultural and forestry enterprises were corrected with the estimates of NOE for non-reporting and underreporting.

1.8.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

For agricultural and forestry enterprises, both positive and negative conceptual corrections were made. Within negative conceptual corrections, corrections were made to items that refer to gross insurance premium and allowances for employees. Positive conceptual corrections comprise corrections of the item - Tax cost taken from enterprises' financial statements – which, besides other taxes on production also included taxes that, according to SNA methodology do not belong to taxes on production and, therefore, they are included in intermediate consumption. All conceptual corrections are explained in more detail in the chapter 1.2.4.1. Adjustments were made by including non-reporting and by correction to the lower level based on misreporting. In Table 1.5 conceptual corrections and adjustments for NOE to output and intermediate consumption are shown.

Agriculture statistics does not have data on intermediate consumption for individual agriculture, and by experts' estimate, it amounted to 54% of the output of individual agriculture.

1.5 A Agriculture, hunting and forestry, 2007 - output, intermediate consumption, corrections and adjustments

	thous. KM					
	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	1 982 559			15 841		1 998 400
Enterprises	285 636			15 841		301 477
Individual producers	1 687 749					1 687 749
Entrepreneurs	9 174					9 174
INTERMEDIATE CONSUMPTION	1 084 736	4 896	5 967	1 457	4 521	1 080 601
Enterprises	174 685	4 896	5 967	1 457	4 521	170 550
Individual producers	902 949					902 949
Entrepreneurs	7 102					7 102

Table 1.6 shows Gross value added according to data sources and national accounts, as well as adjustments and conceptual corrections of gross value added.

1.6 A Agriculture, hunting and forestry, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
	TOTAL	897 823	917 799	19 976	102.2
Enterprises	110 951	130 927	19 976	118.0	15.3
Individual producers	784 800	784 800	0.0	100.0	0.0
Entrepreneurs	2 072	2 072	0.0	100.0	0.0

1.9 FISHING (B)

1.9.1 INTRODUCTION

Fishing does not have a significant role in our economy. Only 0.1 % of the total number of legal entities goes to fishing. There are no registered entrepreneurs in this activity. Adjustments in this area are very slight, and they refer to misreporting of enterprises, and to households that carry out fishing only for their own needs.

1.7 B Fishing, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	12 917	7 631	5 286	100.0	0.1
Enterprises	12 912	7 631	5 281	99.9	0.1
Households	5		5	0.1	0.0

1.9.2 DATA SOURCES AND METHODS

Financial statements are main data source for enterprises that deal with fishing.

1.9.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

For the output calculation, all components mentioned for agriculture are taken into account. Data source is adjusted for the amount that is considered misreporting of enterprises. The adjustment made refers to households engaged in fishing for their own needs.

1.9.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Conceptual corrections are made in the same way as in other activities (gross insurance premium, allowances for employees, tax costs), while adjustments relate to misreporting of enterprises. All conceptual corrections are explained in more detail in the chapter 1.2.4.1.

1.8 B Fishing, 2007 - output, intermediate consumption, corrections and adjustments

thous. KM

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	11 956			961		12 917
Enterprises	11 956			956		12 912
Households				5		5
INTERMEDIATE CONSUMPTION	7 877	67	229		84	7 631
Enterprises	7 877	67	229		84	7 631
Households						

1.9 B Fishing, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	4 079	5 286	1 207	129.6	22.8
Enterprises	4 079	5 281	1 202	129.5	22.8
Households		5	5	0.0	100.0

1.10 MINING AND QUARRING (C)

1.10.1 INTRODUCTION

In calculation of GVA for this activity, equal importance is attributed to mining of metal ores (division 13) and mining of coal, lignite and extraction of peat (division 10). Subsidies for this area are minimal, and revenues are generated by sale of the products. Entrepreneurs participate with 0.8% in the GVA for this activity.

1.10 C Mining and quarrying, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	272 768	146 871	125 897	100.0	2.2
Enterprises	270 018	145 111	124 907	99.2	2.1
Entrepreneurs	2 750	1 760	990	0.8	0.1

1.10.2 DATA SOURCES AND METHODS

Data sources for enterprises in this activity are financial statements (Profit and loss account, Balance sheet and Annex), which APIF delivers to RSIS. Data source for entrepreneurs is the conducted ad hoc survey, which is explained in more detail in the chapter 1.2.1.4.

1.10.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

For the calculation of output in this activity, the same components are used as for other activities. Subsidies in this activity refer to interest rates subventions. The coverage for this activity is complete and adjustments are not necessary, the adjustments made relate to misreporting.

1.10.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Data source for intermediate consumption are corrected for amounts of gross insurance premium, allowances for employees and costs for taxes (as explained in chapter 1.2.1.4). Adjustments of intermediate consumption are made for misreporting, as costs have been considered overrated. Table 1.11 shows conceptual corrections and NOE adjustments for output and intermediate consumption.

1.11 C Mining and quarrying, 2007 - output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous.KM				
OUTPUT	270 096			2 672		272 768
Enterprises	267 346			2 672		270 018
Entrepreneurs	2 750					2 750
INTERMEDIATE CONSUMPTION	151 572	3 936	3 477		5 160	146 871
Enterprises	149 812	3 936	3 477		5 160	145 111
Entrepreneurs	1 760					1 760

1.12 C Mining and quarrying, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	118 524	125 897	7 373	106.2	5.9
Enterprises	117 534	124 907	7 373	106.2	5.9
Entrepreneurs	990	990	0	100.0	0.0

1.11 MANUFACTURE INDUSTRY (D)

1.11.1 INTRODUCTION

The most important roles in manufacturing belong to food manufacturing, wood processing, manufacturing of basic metals and fabricated metal products. Enterprises' share in the total GVA is 9.0%, and entrepreneurs' share is 2.6%. The most important subsidies on products provided by government are for food manufacturing, wood processing and metal industry.

1.13 D Manufacturing, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	2 433 199	1 758 496	674 703	100.0	11.6
Enterprises	2 034 985	1 508 206	526 779	78.1	9.0
Entrepreneurs	398 214	250 290	147 924	21.9	2.6

1.11.2 DATA SOURCES AND METHODS

Data sources for enterprises in this activity are financial statements (Profit and loss account, Balance sheet and Annex), which APIF delivers to RSIS. The conducted ad hoc survey for 2007 is data source for entrepreneurs.

1.11.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Main components for the output calculation are: sales, changes in inventories, trade margin, and subsidies on products. Output adjustments are made according to non-reporting for all 2-digit level of activities except division 16-manufacturing of tobacco products and division 23-manufacturing of coke, refined petroleum products. This adjustment forms 1.4 % of total GVA for manufacturing. Output adjustments for misreporting make up 11.9 % of the total GVA for manufacturing. Entrepreneurs' share in GVA for manufacturing is 21.9 %. Output calculation for entrepreneurs has been done by the same components, as for enterprises, and it has been adjusted for tips and misreporting.

1.11.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

The intermediate consumption calculation is done in the same way as for above-mentioned activities, using conceptual corrections and adjustments. Negative corrections refer to gross insurance premium and corrections of allowances for employees. Positive conceptual corrections relate to correction of the item – Costs of taxes – taken from financial statements for enterprises, which, besides other taxes on production also includes taxes that, according to SNA methodology, do not belong to taxes on production and, therefore, they are included in intermediate consumption. Conceptual corrections are explained in more detail in the chapter 1.2.1.4. Adjustments for non-reporting and for misreporting (due to over-estimation) are also included in the intermediate consumption. The table 1.14 shows conceptual corrections and adjustments to output and intermediate consumption.

1.14 D Manufacturing, 2007 - output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous. KM				
OUTPUT	2 322 251			110 948		2 433 199
Enterprises	1 959 723			75 262		2 034 985
Entrepreneurs	362 528			35 686		398 214
INTERMEDIATE CONSUMPTION	1 758 524	6 193	23 920	35 362	17 663	1 758 496
Enterprises	1 508 234	6 193	23 920	35 362	17 663	1 508 206
Entrepreneurs	250 290					250 290

1.15 D Manufacturing, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	563 727	674 703	110 976	119.7	16.4
Enterprises	451 489	526 779	75 290	116.7	14.3
Entrepreneurs	112 238	147 924	35 686	131.8	24.1

1.12 ELECTRICITY, GAS AND WATER SUPPLY (E)

1.12.1 INTRODUCTION

This activity mainly refers to large public enterprises that are completely covered by the administrative data sources. Electricity production is corrected for all internal transactions that occur among subjects whose activity is primary production of electricity, electric power transmission and distribution. There are individual entrepreneurs in this activity, but they are not significant. The share of the GVA to this activity in the total GVA is 5.3 %.

1.16 E Electricity, gas and water supply, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
			thous. KM		%
TOTAL	613 887	303 026	310 861	100	5.3
Enterprises	612 762	302 306	310 456	99.9	5.3
Entrepreneurs	1 125	720	405	0.1	0.0

1.12.2 DATA SOURCES AND METHODS

Main data sources are annual financial statements for enterprises, making complete coverage for this activity. Calculations of output, intermediate consumption and GVA are done in the same way as for other market activities.

1.12.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Main components for the calculation are: revenues, changes in inventories, trade margin and subsidies on products. Some transfers in this activity realized by the government are excluded from output, and they are shown as other subsidies on production. There are no adjustments for this activity due to completeness of coverage.

1.12.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

The calculation of intermediate consumption is done in the same way as for previous market activities, using conceptual corrections and adjustments. Intermediate consumption is corrected for gross insurance premium, allowances for employees, which are a part of compensation of employees, as well as for costs for taxes that are not other taxes on production. Conceptual corrections are explained in more detail in the chapter 1.2.1.4. During the analyse of the obtained data, the conclusion was made that some costs were overrated, so non-exhaustiveness type N6 (under-reporting) is included in the calculation.

1.17 E Electricity, gas and water supply, 2007- output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous. KM				
OUTPUT	613 887					613 887
Enterprises	612 762					612 762
Entrepreneurs	1 125					1 125
INTERMEDIATE CONSUMPTION	313 332	9 230	8 992		10 544	303 026
Enterprises	312 612	9 230	8 992		10 544	302 306
Entrepreneurs	720					720

1.18 E Electricity, gas and water supply, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
	thous. KM				
TOTAL	300 555	310 861	10 306	103.4	3.3
Enterprises	300 150	310 456	10 306	103.4	3.3
Entrepreneurs	405	405	0	100.0	0.0

1.13 CONSTRUCTION (F)

1.13.1. INTRODUCTION

Production within this activity is based on production by enterprises, production by entrepreneurs and production in households sector(individual construction). Because of lack of reliable and administrative sources for part of output in households sector, the estimate of individual construction production is made and its share in the total GVA for this activity amounts to 26.1 %. Based on the analysis of financial statements and their coverage, it is assumed that construction activity is rather underestimated, so NOE estimates are included too, through adjustments for under-reporting and non-reporting.

1.19 F Construction, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM		%		
TOTAL	1 105 806	707 675	398 131	100.0	6.8
Enterprises	806 695	521 924	284 771	71.5	4.9
Entrepreneurs	21 838	12 130	9 708	2.4	0.2
Individual construction	277 273	173 621	103 652	26.1	1.7

1.13.2 DATA SOURCES AND METHODS

Main data sources are annual financial statements for enterprises and the ad hoc survey for individual entrepreneurs, as explained in the chapter 1.2.1. Approaches used for GDP calculation are the same as for other activities, as explained in detail in the chapter 1.2. Data source for estimates of individual construction for 2007 is HBS 2007.

1.13.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Output calculation is done in the same way as for the previous market activities, beginning with sales, changes in inventories, trade margin and subsidies on products. Adjustment of enterprises output is made for non-reporting, while adjustments of output for under-reporting are made for enterprises and entrepreneurs, as well.

1.13.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Intermediate consumption calculation is done in the same way as for the previous market activities, using conceptual corrections and adjustments. Intermediate consumption is corrected for gross insurance premium, allowances for employees, as well as for costs for taxes that are not other taxes on production. Conceptual corrections are explained in more detail in the chapter 1.2.4.1. The calculation of intermediate consumption includes adjustments for non-reporting and misreporting.

F Construction, 2007 - output, intermediate consumption, corrections and adjustments

thous. KM

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	1 022753			83 053		1 105 806
Enterprises	726 182			80 513		806 695
Entrepreneurs	19 298			2 540		21 838
Individual construction	277273					277273
INTERMEDIATE CONSUMPTION	684 800	4 473	10 000	39 305	10 903	707 675
Enterprises	499 049	4 473	10 000	39 305	10 903	521 924
Entrepreneurs	12130					12130
Individual construction	173 621					173 621

1.21 F Construction, 2007, Gross value added - data sources , adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	337 953	398 131	60 178	117.8	15.1
Enterprises	227 133	284 771	57 638	125.4	20.2
Entrepreneurs	7 168	9 708	2 540	135.4	26.2
Individual construction	103 652	103 652	0	100.0	0.0

1.14 WHOLE AND RETAIL TRADE (G)

1.14.1 INTRODUCTION

Trade has an important place in the structure of total GVA. Enterprises make up 75,2% and entrepreneurs 24,8% of GVA for trade. Trade margin is the difference between revenue from sales of trade goods and purchase-value of sold goods.

1.22 G Whole and retail trade, 2007

	Output	Intermediate consumption	Gross value added at basic prices		
			total	structure	% of GVA
	thous. KM		%		
TOTAL	1 525 848	655 460	870 388	100.00	14.9
Enterprises	1 255 177	600 094	655 083	75.2	11.2
Entrepreneurs	270 671	55 366	215 305	24.8	3.7

1.14.2 DATA SOURCES AND METHODS

Data sources for enterprises are financial statements (Profit and loss account, Balance sheet, Annex); Pilot survey conducted for 2007 is the data source for entrepreneurs. Conducted ad hoc survey is explained in more detail in the chapter 1.2.1.4. The calculation methods are the same as for other activities.

1.14.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Output is formed by summing sales, trade margins, changes in inventories, and subsidies on products. In the scope of enterprises' trade, the largest part of output belongs to wholesale (43 %). The entrepreneurs' output has been calculated on the basis of data derived from ad hoc survey for 2007. The corrections of output calculation are made for under-reporting, and mainly relate to retail trade in relation to tips. In addition, the corrections of output are made for exhaustiveness, and it amounts to 1.5% of the total GVA for Trade activity, where retail trade has the largest part.

1.14.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Intermediate consumption calculation by source items is the same as for the previous activities, including conceptual corrections and adjustments. Conceptual corrections refer to corrections of intermediate consumption for gross insurance premium and allowances that are included in compensation of employees, as well as for costs of taxes that are not a part of other taxes on production. Conceptual corrections are explained in more detail in the chapter 1.2.4.1. Adjustments for misreporting for enterprises are included.

1.23 G Whole and retail trade, 2007 - output, intermediate consumption, corrections and adjustments

thous. KM

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	1 400 894			124 954		1 525 848
Enterprises	1 182 466			72 711		1 255 177
Entrepreneurs	218428			52 243		270 671
INTERMEDIATE CONSUMPTION	640 000	10 924	23 545	43 034	14 953	655 460
Enterprises	584 634	10 924	23 545	43 034	14 953	600 094
Entrepreneurs	55 366					55 366

1.24 G Whole and retail trade, 2007, Gross value added, data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	760 894	870 388	109 494	114.4	12.6
Enterprises	597 832	655 083	57 251	109.6	8.7
Entrepreneurs	163 062	215 305	52 243	132.0	24.3

1.15 HOTELS AND RESTAURANTS (H)

1.15.1 INTRODUCTION

The most important role in this activity is that of individual entrepreneurs, whose share amounts to 80.1 % of GVA for the H activity, because the significant number of private hotels are registered as individual entrepreneurs. Enterprises are not that important and mainly relate to hotel services. Producers in this activity that belong to general government sector are students' and pupils' dormitories which cover more than half of their costs by government financing. Adjustments in this sector are significant, and they amount to 32.8 % of total GVA for this activity.

1.25 H Hotels and restaurants, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	206 856	90 187	116 669	100.0	2.0
Enterprises	39 583	21 101	18 482	15.8	0.3
Entrepreneurs	158 731	65 302	93 429	80.1	1.6
Government sector - part	8 542	3 784	4 758	4.1	0.1

1.15.2 DATA SOURCES AND METHODS

Data sources are annual financial statements for enterprises, as well as ad hoc survey for individual entrepreneurs, realized for 2007. Source of data for students' and pupils' dormitories is the Report on Budget Execution of the Republika Srpska. Calculation for students' and pupils' dormitories is done by using cost method. Methods to GVA calculation for enterprises and entrepreneurs are the same as for other market activities, and these are explained in more detail in the chapter 1.2.

1.15.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Calculation of output is done in the same way as for all previous market activities, beginning with sales, changes in inventories, trade margin, and subsidies on products. Output for enterprises and entrepreneurs is significantly increased by adjustments, such as for non-reporting, under-reporting, tips, and private accommodation renting for tourists. Output at basic prices for students' and pupils' dormitories has included the sum of other taxes on production, compensation of employees, consumption of fixed capital and intermediate consumption.

1.15.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

The calculation of intermediate consumption is done in the same way as for all previous activities, including conceptual corrections and adjustments. Conceptual corrections of intermediate consumption are made for gross insurance premium and for allowances for employees, as well as costs for taxes not included in other taxes on production. Conceptual corrections are explained in more detail in the chapter 1.2.4.1. The adjustments for non-reporting and under-reporting exist for enterprises, while the non-exhaustiveness type N3 (registration not obligatory) is present for the sector of households (private accommodation renting for tourists for which intermediate consumption is estimated by experts from National accounts department).

1.26 H Hotels and restaurants, 2007- output, intermediate consumption, corrections and adjustments

thous. KM

	Data sources	Conceptual corrections		Adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	167 838			39 018		206 856
Enterprises	35 317			4 266		39 583
Entrepreneurs	123 979			34 752		158 731
Government sector - part	8 542					8 542
INTERMEDIATE CONSUMPTION	89 771	432	701	1 251	566	90 187
Enterprises	20 852	432	647	1 030	566	21101
Entrepreneurs	65 081			221		65 302
Government sector - part	3 838		54			3 784

1.27 H Hotels and restaurants, 2007, Gross value added - data sources , adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	78 067	116 669	38 602	149.4	33.1
Enterprises	14 465	18 482	4 017	127.8	21.7
Entrepreneurs	58 898	93 429	34 531	158.6	36.9
Government sector - part	4 704	4 758	54	101.1	1.1

1.16 TRANSPORT, STORAGE AND COMMUNICATION (I)

1.16.1 INTRODUCTION

The most important activity is Post and telecommunications for Transport activity, then Land transport and travel agencies, while waterway and air transport are not developed. In the total GVA for Transport, enterprises have a share of 92.1%. Entrepreneurs are included with 7.9% in this activity.

1.28 I Transport, storage and communication, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	847 923	389 801	458 122	100.0	7.8
Enterprises	772 896	351 007	421 889	92.1	7.2
Entrepreneurs	75 027	38 794	36 233	7.9	0.6

1.16.2 DATA SOURCES AND METHODS

Data sources for enterprises and entrepreneurs are the same as for the previous activities (chapter 1.14.2). Data sources are annual financial statements for enterprises and ad hoc survey for individual entrepreneurs.

1.16.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Calculation of output is a sum of sales, margins, changes in inventories and subsidies on products. Subsidies provided by government to railway transport are significant. Here, only subsidies that relate to subsidies of train tickets are included. Output adjustments are made for non-reporting, under-reporting and tips.

1.16.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Intermediate consumption consists of sums of costs, which occur through the process of production. Data sources are corrected, and these corrections refer to gross insurance premium and allowances for employees and costs of taxes that are not other

taxes on production, while adjustments are made for non-reporting and under-reporting. Conceptual corrections are explained in more detail in the chapter 1.2.4.1.

1.29 I Transport, storage and communication, 2007- output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous. KM				
OUTPUT	826 828			21 095		847 923
Enterprises	768 853			4 043		772 896
Entrepreneurs	57 975			17 052		75 027
INTERMEDIATE CONSUMPTION	406 322	8 385	12 399	672	13 179	389 801
Enterprises	367 528	8 385	12 399	672	13 179	351 007
Entrepreneurs	38 794					38 794

1.30 I Transport, storage and communication, 2007, Gross value added, data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	420 506	458 122	37 616	108.9	8.2
Enterprises	401 325	421 889	20 564	105.1	4.8
Entrepreneurs	19 181	36 233	17 052	188.9	47.1

1.17 FINANCIAL INTERMEDIATION (J)

1.17.1 INTRODUCTION

Financial intermediation activity consists of banks, insurance, micro-credit organisations, investment funds, financial enterprises, NPISHs, and the Central Bank of B&H. The commercial banks have the most significant share in GVA for this activity with 87.1%. Within this activity, the calculation of indirectly measured services – FISIM (difference between revenue and expenditure of interests) was made. It was not allocated to activities, and it was used for corrections of the total GVA. Table 1.31 shows output, intermediate consumption and GVA separately for financial enterprises, banks, insurance, entrepreneurs and NPISHs, as well as share in GVA for activity J. In 2007, there are active 11 commercial banks and 7 insurance companies based in the Republika Srpska.

1.31 J Financial intermediation, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
			thous. KM		%
TOTAL	336 055	138 670	197 385	100.0	3.4
Financial enterprises	8 173	3 216	4 957	2.5	0.1
Banks	270 024	98 087	171 937	87.1	2.9
Insurance	50 770	34 888	15 882	8.0	0.3
Entrepreneurs	954	419	535	0.3	0.0
NPISHs	6 134	2 060	4 074	2.1	0.1

1.17.2 DATA SOURCES AND METHODS

As for the previous activities, the data sources are annual financial statements (except for entrepreneurs) and their content is different for each of these areas. Collection and delivery of these reports are done by APIF. It is important to note that financial statements for banks and insurance companies are specific and separate. Group of banks includes commercial banks, micro-credit organisations, investment funds, postal savings-bank and the Central Bank of B&H. Group of insurance companies consists of companies registered in the division 66 of the Classification of economic activities.

Financial enterprises submit their financial statements to APIF, in line with Chart of accounts for enterprises. Data source for entrepreneurs is the conducted Pilot survey for 2007. Source of data for the Central Bank is BHAS.

1.17.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Calculation of output for banks and microcredit organisations includes revenues from fees ,other operational revenues and FISIM.FISIM is calculated as the difference between revenues and expenditure on the basis interests, from which is excluded estimated holding gains or losses.

Formation of output for insurance companies is done by decreasing gross insurance premium with damages and expenses for technical reserve, and it is increased by other non-technical revenues and revenue from premium supplement. Revenues from premium supplement are decreased with revenues from investing own funds in the amount of 12 % from financial revenues and other technical revenues.Life insurance is not included in the calculation of output for insurance companies, because it is in the initial stage of development.From the same reason,private pension and health funds are not included.

All commercial banks and insurance companies are included in the calculation and adjustments through non-observed economy are not needed. Output adjustments are made for entrepreneurs according to misreporting.

FISIM is defined as the difference between the interest receivable (revenues) and the interest payable (expenditure) for financial intermediaries. Revenues and expenditures of interests are taken from financial reports of banks and microcredit organisations.Calculation of FISIM using reference interest rate is not possible yet, because BiH and therefore RS does not have own reference interest rate.Interest rates in Republika Srpska are linked with EURIBOR-european reference interest rate. That means, the revenues and expenditures of interests are in direct relation with the movement of EURIBOR.

1.17.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

The intermediate consumption for banks consists of expenditures of fees and commissions, costs of material, costs of production services, non-material costs, other costs, and other expenditures and part of nonmarket output of Central bank.From non-material costs are excluded employees fees and they are included in compensation of employees.

The intermediate consumption for insurance companies includes commissions costs, other acquisition costs, reinsurance costs, other technical expenses, and non-technical expenses. Conceptual corrections of intermediate consumption are made for financial enterprises for gross insurance premium, allowances for employees and costs for taxes that are not a part of other taxes on production, while adjustments relate to undr-reporting. Conceptual corrections are explained in more detail in the chapter 1.2.4.1.

1.32 J Financial intermediation, 2007- output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		thous. KM
		positive	negative	positive	negative	National accounts
OUTPUT	335 533			522		336 055
Financial enterprises	8 173					8 173
Banks	270 024					270 024
Insurance	50 770					50 770
Entrepreneurs	432			522		954
NPISHs	6 134					6 134
INTERMEDIATE CONSUMPTION	148 062	28	9 287		133	138 670
Financial enterprises	3 578	28	257		133	3 216
Banks	107 117		9 030			98 087
Insurance	34 888					34 888
Entrepreneurs	419					419
NPISHs	2 060					2 060

1.33 J Financial intermediation, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	187 471	197 385	9 914	105.3	5.0
Financial enterprises	4 595	4 957	362	107.9	7.3
Banks	162 907	171 937	9 030	105.5	5.2
Insurance	15 882	15 882	0	100.0	0.0
Entrepreneurs	13	535	522	4 115.4	97.6
NPISHs	4 074	4 074	0	100.0	0.0

1.18 REAL ESTATE, RENTING AND BUSINESS ACTIVITIES (K), 2007

1.18.1 INTRODUCTION

Every year, K activity becomes increasingly important within the structure of GVA. The most important part of GVA for this activity is imputed rent with share of 53.7%, and it is included in the households sector. According to the data from HBS 2007, the 95 % of households are owners of the dwellings, while 5% of households rent their dwellings. The estimate of real rent is made based on these data.

1.34 K Real estate, renting and business activities, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	1 029 137	342 994	686 143	100.0	11.8
Enterprises	373 978	223 831	150 097	21.9	2.6
Entrepreneurs	220 178	52 559	167 619	24.4	2.9
Imputed rent	434 574	66 430	368 144	53.7	6.3
NPISHs	176	79	97	0.0	0.0
Government sector - part	281	95	186	0.0	0.0

1.18.2 DATA SOURCES AND METHODS

For enterprises, NPISHs and entrepreneurs data sources are annual financial statements (Profit and loss account, Balance sheet and Annex) and mentioned ad hoc survey for 2007, explained in chapter 1.2.1.4. The calculation of imputed rent is derived by USER COST method, starting from the results of HBS 2004, where the year 2004 is the benchmark year. The calculation for the following years is derived by the rate of growth/decrease of population. Imputed rent is calculated by BHAS and then delivered to RSIS. Data source for real rent is the HBS 2007. As to the students' work, the sources of data are information received from the Students and Youth Associations in RS.

1.18.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Output for enterprises and entrepreneurs is done in the same way as for all market activities, by calculating a sum of sales, margin, subsidies on products and changes in inventories. Imputed rent estimate is based on cost method, including estimates of intermediate consumption, other taxes on production, consumption of fixed capital and net operational surplus.

For entrepreneurs, apart from adjustments for under-reporting, output adjustments are made for non-exhaustiveness type N3 for students' work, contractual work, copyrights fees, and renting houses and flats – real rent. Adjustments that relate to contractual work and copyright fees are based on the Report on taxes published by RS Ministry of Finance. Real rent value is a number of households which are under a lease multiplied by the average amount of rent in RS. Calculation for part of government sector and NPISHs is done by costs method i.e. by summing up compensation of employees, consumption of fixed capital and intermediate consumption. Output adjustments for enterprises are done by estimate of non-reporting and misreporting, as it was done for the previous activities.

1.18.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

The same as for other activities, conceptual corrections were made for enterprises and NPISHs with regards to gross insurance premium, allowances for employees and costs for taxes, which are not included in other taxes on production. Adjustment of intermediate consumption has been made by estimates for misreporting and non-reporting. Intermediate consumption for imputed and real rent is based on the HBS for 2007, while intermediate consumption for contractual work and copyright fees has been estimated by experts.

1.35 K Real estate, renting and business activities, 2007 - output, intermediate consumption, corrections and adjustments

thous. KM

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	879 497			149 640		1 029 137
Enterprises	360 493			13 435		373 928
Entrepreneurs	83 973			136 205		220 178
Imputed rent	434 574					434 574
NPISHs	176					176
Government sector - part	281					281
INTERMEDIATE CONSUMPTION	344 336	2 755	8 044	10 445	6 498	342 994
Enterprises	234 207	2 755	8 017	1 384	6 498	223 831
Entrepreneurs	43 498			9 061		52 559
Imputed rent	66 430					66 430
NPISHs	106		27			79
Government sector - part	95					95

1.36 K Real estate, renting and business activities, 2007, Gross value added, data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	535 161	686 143	150 982	128.2	22.0
Enterprises	126 286	150 097	23 811	118.6	15.8
Entrepreneurs	40 475	167 619	127 144	414.1	75.6
Imputed rent	368 144	368 144	0	0.0	0.0
NPISHs	70	97	27	138.6	27.8
Government sector - part	186	186	0	0.0	0.0

1.19 PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY (L)

1.19.1 INTRODUCTION

The activity Public administration and defence, compulsory social security include all units registered in division 75 of CEA whether there are at the central, entity and local level. General government consists of direct budget users at the entity level (administrative units at entity level with legislative, judicial and executive powers), at municipality level and compulsory social security funds, as well part of central bodies of Bosnia and Herzegovina. Other group includes all public services that are, according to the 50% criterion, classified as non-market producers, such as Directorate for roads RS and agencies for the development of municipalities and non-profitable institutions mostly financed by the state.

1.37 L Public administration and defence, compulsory social security, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM		%		
TOTAL	956 953	322 591	634 362	100.0	10.9
Non-market enterprises	56 651	39 959	16 692	2.6	0.3
Government	892 949	280 097	612 852	96.6	10.5
NPISHs	7 353	2 535	4 818	0.8	0.1

1.19.2 DATA SOURCES AND METHODS

RS Ministry of Finance, after publishing the Report on Budget Execution for RS, in electronic form as well as in hard-copy, delivers it to the RSIS. This Ministry's Department responsible for municipality budget, delivers consolidated financial statements for municipalities and funds in electronic form and hard-copy. The data for B&H central bodies are delivered by BHAS, as reports with already calculated categories are already calculated (output, intermediate consumption, GVA and compensation of employees and number of employees) which is explained in the chapter 1.2.1.5. APIF delivers financial statements in electronic form, for non-market enterprises and non-profit institutions. Cost method is used for the calculation of all mentioned categories.

1.19.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Output at basic prices comprises the sum of other taxes on production, compensation of employees, consumption of fixed capital and intermediate consumption. Because of the complexity of coverage for this activity, no corrections or adjustments are necessary.

1.19.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

For intermediate consumption calculation the following accounting categories are used:

- Travel expenses;
- Energy costs;
- Communal and communication services costs;
- Material supply;
- Transport services expenses and fuel;
- Property and equipment renting;
- Current maintenance expenditure;
- Money transfer services;
- Services by contract.

Negative conceptual corrections were made to the items which relate to gross insurance premium and travel costs (the part related to allowances for employees are excluded). Conceptual corrections are explained in the chapter 1.2.1.4. Services by contract of the Health Security Fund contained certain costs which were not intermediate consumption and that are why the mentioned item was corrected, as shown in Table 1.38.

1.38 L Public administration and defence, compulsory social security, 2007 - output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous. KM				
OUTPUT	956 953					956 953
Non-market enterprises	56 651					56 651
Government	892 949					892 949
NPISHs	7 353					7 353
INTERMEDIATE CONSUMPTION	660 349		337 758			322 591
Non-market enterprises	40 171		212			39 959
Government	617 314		337 217			280 097
NPISHs	2 864		329			2 535

1.39 L Public administration and defence, compulsory social security, 2007, Gross value added - data sources , adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	296 604	634 362	337 758	213.9	53.2
Non-market enterprises	16 480	16 692	212	101.3	1.2
Government	275 635	612 852	337 217	222.3	55.0
NPISHs	4 489	4 818	329	107.3	6.8

1.20 EDUCATION (M)

1.20.1 INTRODUCTION

Education activity consists of market and non-market units. Division of market and non-market units is done using criteria of 50%. If the less of 50% production costs is covered by market sales of services, then institutional units are non-market producers and belong to government sector or NPISH sector. Non-market units of education participate with 93.1% in the gross value added. In carrying out its activities non-market units realized their revenues at the market and can cover only a small part of their costs. According to the accounting frame of budgetary users, revenues from services realized at the market in the financial report have a special code and can be identified. Non-market units of education are mostly public pre-schools and schools and are funded from the budget of Republika Srpska and municipalities. Also, non-market units include NPISH (Auto moto associations, cultural and artistic associations).

Market units participate with 6.9% in the gross value added and their revenues are realized at the market. Market units are private education (secondary, high school, private driving schools, schools for foreign languages ect.).

1.40 M Education, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	288 288	55 678	232 610	100.0	4.0
Market enterprises	23 752	8 370	15 382	6.6	0.3
Entrepreneurs	1 263	480	783	0.3	0.0
Public education	257 959	44 365	213 594	91.8	3.7
Non-market enterprises	1 509	323	1 186	0.6	0.0
NPISHs	3 805	2 140	1 665	0.7	0.0

1.20.2 DATA SOURCES AND METHODS

Main data sources for enterprises and non-profit institutions are financial statements. For enterprises with market activities, calculation are done on the basis of revenues, while for non-market activities, cost method was used. Source of data for general government are consolidated financial statements for budget users, and these are delivered by RS Ministry of Education and Culture. As for all non-market producers, the calculation for public education and NPISH is done by costs method. Data source for entrepreneurs is earlier mentioned ad hoc survey for 2007 and method of calculation is on the basis of revenues.

1.20.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

For the calculation of output of a non-market unit, same components were used as for the activity L. Calculation of output for market units is done through income from market sales. Adjustment for under-reporting is included in the calculation of output for market enterprises and entrepreneurs.

1.20.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

For market enterprises positive and negative conceptual corrections were made as for other market activities, which are explained in chapter 1.2.4.1. For non-market units, conceptual corrections were made as in the activity L.

Adjustment was made for under-reporting.

1.41 M Education, 2007 - output, intermediate consumption, corrections and adjustments

thous. KM

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
OUTPUT	287 784			504		288 288
Market enterprises	23 688			64		23 752
Entrepreneurs	823			440		1 263
Public education	257 959					257 959
Non-market enterprises	1 509					1 509
NPISHs	3 805					3 805
INTERMEDIATE CONSUMPTION	61 711	121	5 817		337	55 678
Market enterprises	10 466	121	1880		337	8 370
Entrepreneurs	480					480
Public education	47 904		3 539			44 365
Non-market enterprises	562		239			323
NPISHs	2 299		159			2 140

1.42 M Education, 2007, Gross value added - data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	226 073	232 610	6 537	102.9	2.8
Market enterprises	13 222	15 382	2 160	116.3	14.0
Entrepreneurs	343	783	440	228.3	56.2
Public education	210 055	213 594	3 539	101.7	1.7
Non-market enterprises	947	1 186	239	125.2	20.1
NPISHs	1 506	1 665	159	110.6	9.5

1.21 HEALTH AND SOCIAL WORK (N)

1.21.1 INTRODUCTION

When it comes to health and social work, the biggest role is played by non-market producers which belong to the general government sector (public hospitals, health centres, clinics, social work centres). Private sector, which has started to develop more dynamically in the recent years, becomes more and more important. GVA for this activity amounts to 4.2 % of the total GVA.

1.43 N Health and social work, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
	thous. KM			%	
TOTAL	364 640	117 178	247 462	100.0	4.2
Market enterprises	29 217	12 925	16 292	6.6	0.3
Entrepreneurs	21 730	9 842	11 888	4.8	0.2
Social welfare	24 600	5 745	18 855	7.6	0.3
Non-market enterprises – health care	285 113	86 834	198 279	80.1	3.4
NPISHs	3 980	1 832	2148	0.9	0.0

1.21.2 DATA SOURCES AND METHODS

Data sources for all health institutions are annual financial reports. Non-market units (public hospitals, health centres and medical clinics) fill up their financial reports according to the Chart of accounts for enterprises, therefore, the cost approach is used for

their processing. They participate with 89.5% in total value added for health care. About 80% revenues from health care institutions are financial funds under the contract with the Health Insurance Fund, and the remaining parts of revenues realized from providing public services at the market (participation, services payments for non insured persons), which have own special code in the financial report.

Market units realized their revenues at the market, realizing services at economically significant prices. Gross value added calculation for these units is done on the basis of revenues. In the frame of reforms in the health care system, it is possible that private market health units part of their services is refunded from Health Insurance Fund, based on pre-defined contract.

Data sources for non-profit institutions are financial reports and the cost approach is used for their processing (association of handicapped persons, regional association of citizens suffering from an illness, charities, association of blind persons ect.).

Data sources for social work centres are financial statements, which RSIS collects directly and then enters and processes them using costs method. Data source for entrepreneurs is ad hoc survey for 2007, and method of calculation is on the basis of revenues.

1.21.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Output at basic prices for non-market units consists of the sum of other taxes on production, compensation of employees, consumption of fixed capital and intermediate consumption. Output for market units consists of the sum of sales, margins, subsidies on products and changes in inventories. Output adjustments are made for under-reporting and tips.

1.21.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Intermediate consumption calculation is the same as for other market and non-market activities. For market enterprises, positive and negative conceptual corrections have been made, as it has been done for other market activities, what is explained in chapter 1.2.4.1. For non-market units, conceptual corrections have been made as in the activity L. Adjustment has been made for under-reporting.

1.44 N Health and social work, 2007, output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous. KM				
OUTPUT	359 789			4 851		364 640
Market enterprises	28 548			669		29 217
Entrepreneurs	17 548			4 182		21 730
Social welfare	24 600					24 600
Non-market enterprises-health care	285 113					285 113
NPISHs	3 980					3 980
INTERMEDIATE CONSUMPTION	125 672	87	8 351		230	117 178
Market enterprises	13 436	87	368		230	12 925
Entrepreneurs	9 842					9 842
Social welfare	5 897		152			5 745
Non-market enterprises-health care	94 572		7 738			86 834
NPISHs	1 925		93			1 832

1.45 N Health and social work, 2007, Gross value added - data sources , adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	234 117	247 462	13 345	105.7	5.4
Market enterprises	15 112	16 292	1 180	107.8	7.2
Entrepreneurs	7 706	11 888	4 182	154.3	35.2
Social welfare	18 703	18 855	152	100.8	0.8
Non-market enterprises-health care	190 541	198 279	7 738	104.1	3.9
NPISHs	2 055	2 148	93	104.5	4.3

1.22 OTHER PUBLIC, COMMUNITY, SOCIAL AND PERSONAL SERVICE ACTIVITIES (O)

1.22.1 INTRODUCTION

As it was explained in chapter 1.19, this activity is also divided into market and non-market producers on the basis of the 50% criterion. Non-market enterprises belong to the general government sector and their share in the total GVA for this activity amounts to 12.6%. The biggest share in the GVA of this activity of 34.1 % goes to NPISHs, which include all associations, different clubs, societies and trade unions. In the NPISHs, through adjustment for non-exhaustiveness type N4, estimates for religious associations have been included as well. In addition to religious associations, estimates for tips, non-reporting and under-reporting have also been included through adjustments.

1.46 O Other public, community, social and personal service activities, 2007

	Output	Intermediate consumption	Gross value added		
			total	structure	% of GVA
			thous. KM		%
TOTAL	207 098	99 449	107 649	100.0	1.8
Market enterprises	77 074	30 145	46 929	43.6	0.8
Entrepreneurs	13 835	3 383	10 452	9.7	0.2
Non-market enterprises	22 925	9 363	13 562	12.6	0.2
NPISHs	93 264	56 558	36 706	34.1	0.6

1.22.2 DATA SOURCES AND METHODS

As for the previous activities, main sources of data are financial statements of legal entities and ad hoc survey 2007 for entrepreneurs. For market producers, enterprises and entrepreneurs, the calculation has been done by revenues method, while the cost method was used for the calculation of non-profit institutions and non-market enterprises (as part of government sector).

1.22.3 OUTPUT, CORRECTIONS AND ADJUSTMENTS

Calculation of output for market producers is done in the same way as for all previous activities, starting with sales, changes in inventories, trade margin and subsidies on products. Output for enterprises and entrepreneurs has been significantly increased for adjustments, and this is the case for non-reporting, misreporting and tips. For non-profit institutions, output has been increased for adjustments made for religious associations, which are not obliged to submit financial statements.

1.22.4 INTERMEDIATE CONSUMPTION, CORRECTIONS AND ADJUSTMENTS

Intermediate consumption calculation is done in the same way as for all previous activities, using conceptual corrections and adjustments. For market enterprises, intermediate consumption is corrected for conceptual corrections, and this is the case for gross insurance premium and for allowances for employees, as well as for costs on taxes that are not other taxes on production. For non-market enterprises and non-profit institutions intermediate consumption is corrected for negative conceptual corrections. Conceptual corrections are explained in the chapter 1.2.4.1.

Adjustments are necessary for non-reporting, for misreporting and for religious associations. Intermediate consumption for religious associations is estimated by experts from National accounts department.

1.47 O Other public, community, soc. and person. services activities, 2007, output, intermediate consumption, corrections and adjustments

	Data sources	Conceptual corrections		NOE adjustments		National accounts
		positive	negative	positive	negative	
		thous. KM				
OUTPUT	196 102			10 996		207 098
Market enterprises	74 148			2 926		77 074
Entrepreneurs	9 680			4 155		13 835
Non-market enterprises	22 925					22 925
NPISHs	89 349			3 915		93 264
INTERMEDIATE CONSUMPTION	109 187	1 047	11 000	1253	1 038	99 449
Market enterprises	31 595	1 047	2 103	644	1 038	30 145
Entrepreneurs	3 383					3 383
Non-market enterprises	12 166		2 803			9 363
NPISHs	62 043		6 094	609		56 558

1.48 O Other public, community, soc. and pers. Service activities, 2007, Gross value added, data sources, adjustments and national accounts

	Gross value added, thous. KM			Indices	
	Data sources	National accounts	Adjustments and conceptual corrections	2/1*100	3/2*100
	1	2	3		
TOTAL	86 915	107 649	20 734	123.8	19.3
Market enterprises	42 553	46 929	4 376	110.3	9.3
Entrepreneurs	6 297	10 452	4 155	165.9	39.8
Non-market enterprises	10 759	13 562	2 803	126.1	20.7
NPISHs	27 306	36 706	9 400	134.4	25.6

1.23 TAXES ON PRODUCTS

Taxes on production and import are divided into:

- Taxes on products;
- Other taxes on production.

Taxes on products (D.21) are taxes that are paid by produced goods or service. Indirect Taxation Authority (ITA) of B&H, with the established model of distribution, distributes collected indirect taxes to the central and entity levels. Data on indirect taxes, which belong to Republika Srpska, are delivered by Ministry of Finance, through the Report on Budget Execution. In addition to this, taxes on products are partly completed with data on indirect taxes which are delivered by BHAS (as income of the central bodies). Taxes on products consist of:

- Value added tax (VAT);
- Excise taxes;
- Customs and import duties;
- Special tax for overnight stay;
- Lottery tax.

Data sources for taxes on products (except for VAT) and other taxes on production are financial statements for legal entities and detailed list of taxes by analytical accounts, which is a part of the Report on Budget Execution prepared by RS Ministry of Finance. It is, as the B-2 form, delivered to RSIS by the Ministry.

Taxes calculation is based on collected taxes, that is, on the cash basis of recording. Aiming to approach to the system of valuation of taxes by accounting principle, National Accounts department, in cooperation with RS Ministry of Finance, performs the calculation of VAT using time period which is based on tax characteristics and time framework for payments. The main types of taxes on products are shown in Table 1.49.

1.49 Taxes on products, 2007

	thous.KM
D.21 TAXES ON PRODUCTS	1 554 121
Value added tax	1 547 226
Excise tax	2 097
Customs and import taxes	155
Special taxes for overnight stay	701
Taxes on lottery	3 942

1.24 VALUE ADDED TAX

VAT was introduced in RS on January 1st 2006, and it is unique rate of 17%. VAT for 2007, at the level of RS amounts to 1 547 226 thousands KM. ITA is responsible for indirect taxes collection at the B&H level. A model for the distribution to the entities has been established. Certain funds are allocated to the central bodies of B&H and for repayment of external debt, the rest of indirect taxes is allocated to the entities. Unfortunately, entity statistics do not have the basis for VAT, only total amounts, which is a huge disadvantage when various analyses and controls are conducted.

1.25 SUBSIDIES ON PRODUCTS

Subsidies are divided into:

- Subsidies on products and services;
- Other subsidies on production.

Subsidies are non-returnable payments and disbursements to resident producers. Data source on subsidies for public and private institutions is the Report on Budget Execution by the RS Ministry of Finances. The Annex, as an integral part of financial statements, is filled in by all legal entities. Since it includes items that refer to subsidies on products D.31 and other subsidies on production D.39, the allocation of total subsidies by activities has been done by the structure of mentioned items from the Annex. In addition, distribution and analysis of subsidies are also done according to the reports of the ministries on allocated subsidies.

Subsidies on products are a part of the output at basic prices.

RS Government mostly provides subsidies to producers in agriculture, food industry, publishing, as well as for rail transport (public enterprise "Željeznice RS"). The largest subsidies go to public enterprises, while private enterprises get a significantly smaller share. In addition, RS Government gives incentives to agriculture and domestic production, so more and more subsidies are given to individual agricultural producers. In the total subsidies on products, subsidies to individual agricultural producers amount to 57.5%, while legal entities participate with 42.5%.

1.50 Subsidies on products, 2007

	thous. KM
D.31 SUBSIDIES ON PRODUCTS	40 226
Legal entities	17 091
Individual agricultural producers	23 135

CHAPTER 2**INCOME APPROACH, CURRENT PRICES, 2007****2.1 GDP BY INCOME APPROACH**

The calculation of GDP by income approach is done for the first time in 2009 year. It related to data for GDP by income approach for 2005, 2006, 2007 and 2008. Calculation of main categories by income approach is done and published through Release. During 2010, calculation of GDP by income approach is done for the period 2000-2004, by which is established available data series from 2000.

The main categories of income GDP are compensation of employees, gross operating surplus, gross mixed income, other taxes on production and other subsidies on production. Total income categories by activities are directly increased by taxes on products and reduced by subsidies on products to get the final value of GDP at market prices. GDP 2007 main income categories are shown in the Tables 2.1 and 2.2.

GDP by income approach equals the sum of compensation of employees, net taxes on production (taxes on production less subsidies on production) and gross operating surplus and mixed income.

2.1. GDP by the income approach, 2007

	thous. KM	Structure, %
Compensation of employees	3 007 528	40.9
Taxes on production and imports	1 635 598	22.2
Taxes on products	1 554 121	21.1
Other taxes on production	81 477	1.1
Less: subsidies	127 506	1.7
Subsidies on products	40 226	0.5
Other subsidies	87 280	1.2
Gross operating surplus	1 437 173	19.6
Gross mixed income	1 398 188	19.0
GROSS DOMESTIC PRODUCT	7 350 985	100.0

2.2 GDP by the income approach and activities, 2007

	thous.KM				
	Gross value added	Compensation of employees	Net taxes on production	Consumption of fixed capital	Net operating surplus/Net mixed income
A Agriculture, hunting and forestry	917 799	113 973	-53 634	120 244	737 216
B Fishery	5 286	4 149	14	926	197
C Mining and quarrying	125 897	72 409	3 948	32 538	17 002
D Manufacturing	674 703	454 582	6 274	150 187	63 660
E Electricity, gas and water supply	310 861	219 652	9 907	119 174	-37 872
F Construction	398 131	160 216	5 841	32 841	199 233
G Wholesale and retail trade	870 388	371 979	13 342	89 454	395 613
H Hotels and restaurants	116 669	69 293	950	6 577	39 849
I Transport, storage and communication	458 121	228 021	-14 176	119 059	125 217
J Financial intermediation	197 385	117 279	6 376	22 521	51 209
K Real estate, renting and business activities	686 144	160 647	8 550	176 440	340 507
Imputed rent	368 144			159 959	208 185
L Public administration and defense	634 362	535 991	2 791	95 580	
M Education	232 610	211 436	471	14 492	6 211
N Health and social work	247 462	204 686	1 708	27 011	14 056
O Other community, social and personal activities	107 649	83 215	1 835	9 980	12 619

Description of sources and methods used to compile non-financial National accounts					44
FISIM (minus)	146 377				146 377
Total	5 837 090	3 007 528	-5 803	1 017 024	1 818 341

2.2 THE REFERENCE FRAMEWORK

The data sources for the calculation of income categories are the same as for GDP by production approach, as shown in chapter 1.2.1.

APIF and RS Ministry of Finance deliver financial statements, which include separate items of gross wages and salaries, other labour costs, as well as consumption of fixed capital for market and non-market producers. Sources of data for taxes on production and subsidies on production are detailed lists of taxes and subsidies delivered by RS Ministry of Finance, as well as financial statements for legal entities. More detailed explanations are given in the chapter 1.23 and 1.25. The item, consumption of fixed capital, does not exist in financial statements for direct budget users, so the experts from the National Accounts department have estimated this item.

Calculation of GDP by income approach is based on the same data sources and is published at the same time as GDP by production approach.

2.3 VALUATION

In accordance with the basic accounting principles, available data for estimate of GDP by the production and income approach and GVA components are the accrual categories. The exception are data on taxes recorded on cash basis.

2.4 TRANSITION FROM PRIVATE ACCOUNTING AND ADMINISTRATIVE CONCEPTS TO ESA95 NA CONCEPTS

Transition from private accounting and administrative concepts to ESA 95 National Accounts concept is explained in detail in Chapter 1.4.

In order to accomplish the national accounts concept, the following steps were performed:

- Items which relate to allowances for employees are excluded from intermediate consumption;
- Compensation of employees for students work, contracted work, as well as religious communities are added to the account;
- Part which refers to employed persons in individual agriculture is also added to the account;
- The item - consumption of fixed capital for religious communities, individual agriculture and imputed rent is estimated and included in the calculation.

2.5 THE ROLES OF DIRECT AND INDIRECT ESTIMATION METHODS

GDP by the income approach is based on a direct method, until a indirect metod is not significant.

2.6 THE ROLES OF BENCHMARKS AND EXTRAPOLATIONS

See explanations given in the chapter 1.6.

2.7 THE MAIN APPROACHES TAKEN WITH RESPECT TO EXHAUSTIVENESS

Exhaustiveness adjustments of income categories are not estimated independently. They are estimated in the same way and at the same time as exhaustiveness adjustments, by the production approach. The majority of exhaustiveness adjustments of the output are allocated to compensation of employees and to gross mixed income.

For the non-exhaustiveness type N3 (not obliged to register), for students' work and contracted work, in addition to output and intermediate consumption, the estimates are made for compensation of employees, as well. Compensation of employees is increased also due to non-reporting of legal enterprises (non-exhaustiveness type N4). All adjustments to output and intermediate consumption for market enterprises for under reporting (non-exhaustiveness type N6) are allocated to compensation of employees. Statistical deficiencies (non-exhaustiveness type N7) include output adjustments for tips estimated for service activities of households and in market enterprises, and they are allocated to compensation of employees.

2.8 COMPENSATION OF EMPLOYEES

Compensation of employees consists of two main components:

- Gross wages and salaries;
- Other allowances for employees.

Compensation of employees participates with 40.9% in GDP, and include accrual gross wages and other allowances for employees for work in an accounting year. Components of compensation of employees for 2007 are shown in the Table 2.3.

2.3 Compensation of employees by components, 2007

thous.KM

	Compensation of employees	Gross wages	Other allowances for employees
A Agriculture,hunting and forestry	113 973	85 267	28 706
B Fishery	4 149	2 722	1 427
C Mining and quarrying	72 409	51 290	21 119
D Manufacturing	454 582	363 674	90 908
E Electricity,gas and water supply	219 652	158 109	61 543
F Construction	160 216	99 636	60 580
G Wholesale and retail trade	371 979	311 715	60 264
H Hotels and restaurants	69 293	63 511	5 782
I Transport,storage and communication	228 021	165 720	62 301
J Financial intermediation	117 279	95 580	21 699
K Real estate,renting and business activities	160 647	61 679	98 968
L Public administration and defense,compulsory social security	535 991	471 447	64 544
M Education	211 436	163 420	48 016
N Health and social work	204 686	178 625	26 061
O Other community,social and personal service activities	83 215	59 586	23 629
Total	3 007 528	2 331 981	675 547

Gross wages include all gross payments for work in full time,part time and overtime work,for paid but not worked hours such as annual leave,national holidays and day-offs as prescribed by law,paid leave,paid leave for vocational training and sick-leave paid by employer.

According to accounting standards, the most important other allowances are:

- Jubilee rewards;
- Remuneration for retirement;
- Remuneration for annual holiday;
- Remuneration for board of directors and supervisory board members;
- Over-time allowances;
- Allowances in case of death or serious health problems.

Further, other allowances for employees include items that refer to allowances for employees, and they are excluded from intermediate consumption by production approach. These items refer to:

- Per diems for business trips;
- Remuneration for field work;
- Remuneration for living away from home;
- Remuneration for employees' food at work;
- Allowances for transportation to and back from work.

Compensation of employees includes also estimates for students work and contractual work and are included in category of other allowances for employees.

The sources for compensation of employees are financial statement received from APIF, and annual consolidate reports for government units.

Compensation of employees is calculated with available data sources, according to accounting standards and rules, and with exhaustiveness adjustments.

Gross wages and salaries and other allowances for employees include all gross payments in the accounting year for employees together with employees' social contributions and income taxes. Gross salaries comprise four types of employees' social security contribution (30.6%). Employees' social security contributions include obligatory contributions for pension and (17%), health security scheme (11.5 %), social security contributions for the unemployed (0.7%) and child protection fund (1.4 %).

All payment of other allowances are valued gross, before deduction of any other taxes and social contributions paid by employer.

2.9 OTHER TAXES ON PRODUCTION AND IMPORTS

Other taxes on production (D.29) consist of all taxes that legal entities incur as a result of engaging in production, regardless of quantity or value of the goods or services produced or sold. Besides the Report on Budget Execution from the RS Ministry of Finance, data sources for D.29 are also information from the RS Tax Authority on the origin of tax charges, i.e., taxes paid only by a legal entity. Other taxes on production by type are shown in the Table 2.4.

2.4 Other taxes on production by type, 2007

	thous.KM
Total	81 477
Tax on the use of land for construction	11 123
Taxes on copyrights, patents revenues	769
Taxes on the use of vehicles	1 023
Taxes on the use of mobile phones	5 996
Road fees paid by legal entities	12 888
Use of mineral resources charges	5 370
Water supply charges	367
Charges for water used	239
Charges for water used for agriculture	33
Charges for water taken for commercial purposes	113
Water fees paid when registering motor vehicles	1 152
Charges for polluted water	3 616
Charges for water used for energy production	1 655
Charges for anti-hail protection	63
Charges for material extracted from watercourses	849
Fire protection measures fees	4 796
Lottery funds for humanitarian purposes	1 305
Special republic tax	9 941
Tax on students work	5 709
Tax on contractual work	1 301
Change of purpose of agriculture land fee	1 508
Funds for expanded reproduction of forest resources	11 662

Taxes calculation in national accounts is based on tax collected, that is, on the cash basis. Taxes on products are explained in chapter 1.23 and include all taxes and import duties, VAT, excises on petrol, cigarettes, alcohol, taxes on gambling and slot machines, taxes on specific services and real estate transactions.

2.10 OTHER SUBSIDIES ON PRODUCTION

Subsidies are non-returnable payments and disbursements to resident producers made by government institutions. Data source for subsidies to public and private institutions is the Report on Budget Execution, provided by the RS Ministry of Finance. Since the Annex, as an integral part of financial statements, is filled in by all legal entities, and since it includes items which refer to subsidies on products D.31 and other subsidies on production D.39, allocation of total subsidies according to activities is done on the basis of structure of mentioned items from the Annex. In addition to the mentioned items from the Annex, distribution and analysis of subsidies are also done on the basis of the ministries' reports on given subsidies.

Other subsidies on production mainly refer on employment subsidy, agriculture production, interest rates, cover of expenses for maintenance of railway infrastructure, etc., and in 2007 were 87 280 thousands KM or 1.2% of GDP.

Subsidies on products are explained in chapter 1.25.

2.11 GROSS OPERATING SURPLUS

Operating surplus is the residual category of value added in financial and non-financial corporations and in activities of households (imputed rentals of dwellings). Gross operating surplus is a difference between gross value added at basic prices decreased for compensation of employees and other taxes on production and increased for other subsidies on production. As output of dwelling activities of owner-occupiers is estimated by the cost method and gross operating surplus is the sum of consumption of fixed capital and net operating surplus. The category can be shown either as net or gross, together with consumption of fixed capital. In non-market activities, gross operating surplus equals the consumption of fixed capital. Total gross operating surplus is adjusted for FISIM, because it is not allocated by activities. Gross operating surplus by activities and institutional sectors is shown in the Table 2.5.

2.5 Gross operating surplus by activities, 2007

	Value in 000 KM	Structure (%)
A Agriculture,hunting and forestry	25 785	1.8
B Fishery	1 118	0.1
C Mining and quarrying	48 900	3.4
D Manufacturing	92 808	6.5
E Electricity,gas and water supply	81 022	5.6
F Construction	122 264	8.5
G Wholesale and retail trade	326 700	22.7
H Hotels and restaurants	364	0.0
I Transport,storage and communication	211 779	14.7
J Financial intermediation	73 351	5.1
K Real estate,renting and business activities	436 751	30.4
L Public administration and defense,compulsory social security	95 580	6.7
M Education	19 991	1.4
N Health and social work	32 291	2.3
O Other community,social and personal service activities	14 849	1.0
FISIM (minus)	146 377	10,2
Total	1 437 177	100.0

2.12 MIXED INCOME

Mixed income is the residual category in the calculation of value added of unincorporated enterprises. Gross mixed income is revenue of self-employed for their engagement in the production process. The category is estimated separately for household agriculture production and for unincorporated enterprises. The category can be shown either as net or gross, together with consumption of fixed capital. Gross mixed income calculation for unincorporated enterprises is based on carried out ad hoc survey for entrepreneurs and presents residual category of value added decreased for compensation of employees and other taxes on production, and increased for other subsidies on production. For individual agriculture the number of employed persons was estimated on the basis of the Labour Force Survey 2007, as well as their corresponding mixed income. Gross mixed income by activities and institutional sectors is shown in the Table 2.6.

2.6 Gross mixed income by activities, 2007

	Value in 000 KM	Structure (%)
A Agriculture,hunting and forestry	831 675	59.5
B Fishery	5	0.0
C Mining and quarrying	640	0.0
D Manufacturing	121 039	8.7
E Electricity,gas and water supply	280	0.0
F Construction	109 810	7.9
G Wholesale and retail trade	158 367	11.3
H Hotels and restaurants	46 062	3.3
I Transport,storage and communication	32 497	2.3
J Financial intermediation	379	0.0
K Real estate,renting and business activities	80 196	5.7
L Public administration and defense,compulsory social security		
M Education	712	0.1
N Health and social work	8 776	0.6
O Other community,social and personal service activities	7 751	0.6
Total	1 398 188	100.0

2.13 CONSUMPTION OF FIXED CAPITAL

Consumption of fixed capital data for market,non-market enterprises and NPISH are taken over from financial statements.Calculation of consumption of fixed capital for unincorporated enterprises is based on data from entrepreneurs annual survey.

Since consolidated financial statements for direct budget users do not include the item consumption of fixed capital, it is estimated by using rate of 30% on intermediate consumption. The item - consumption of fixed capital for individual agriculture is

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estimated by using rate of 14% on intermediate consumption. Data of imputed rent as already calculated data is delivered by Agency for statistics.

For non-market producers of general government and NPISHs, consumption of fixed capital is equal to gross operating surplus.

PIM method is not used, so there is still no individual estimates for consumption of fixed capital for roads, bridges and similar infrastructure in the public interest.

CHAPTER 3

NON-OBSERVED ECONOMY

Gross Domestic Product by production approach and Non-exhaustiveness adjustments by tabular approach NOE

3.1 INTRODUCTION

During a first meeting organised by OECD and held in Paris in September 2004, the need for initiation of the project in the area of non-observed economy was recognized. This project involved countries from Western Balkans. Taking into account the mentioned problems connected with data sources which are the basis for GDP checks, the Project was focused on the improvement of exhaustiveness of data sources for GDP estimates. (Project for improving measurement of the non-observed economy in the West Balkan Countries)

During 2004 and 2005, a number of working meetings were held, aimed to overview the coverage of national accounts and to define different types of non-exhaustiveness and main shortcomings of the available data sources, as basis for the calculation of macroeconomic aggregates. The use of recommended tabular approach required evaluative indication of underrated production or overrated expenses. In 2007, the second phase of EFTA OECD project continued. It was necessary to find new sources for estimate of NOE, and in connection to this, to revise estimates made in the previous phase. The improvement of cooperation with relevant institutions, implementation of Labour force survey and HBS, introduction of VAT and Annex which accompanies financial statements, and better understanding of the situation and trends in economy led to changes and certain improvements in the NOE measurement. Within this project, two *ad hoc* surveys were conducted, one for construction and the other one for health care. By tabular approach, all exhaustiveness adjustments are summarized in Table 3.1 showing non-exhaustiveness by type, activity and by institutional sector.

3.1. Non-exhaustiveness economy adjustments by activities and by institutional sectors, 2007

Institutional sectors/Kind of activity (NACE)	NOE adjustments by type							Total NOE adjustments		Official GVA (includes NOE adjustments) thous. KM
	N1	N2	N3	N4	N5	N6	N7	Absolute data	Share of GDP	
	Thous. KM								%	
Non-financial corporations				29 903		204 094	2 149	236 146	3.2	2 707 278
Financial corporations						133		133	0.0	192 775
General government										1 079 965
Households	5 823		109 920			151 034	11 723	278 500	3.8	1 953 941
NPISHs				3 306				3 306	0.1	49 508
NACE A				102		18 803		18 905	0.3	917 799
NACE B			5			1 040		1 045	0.0	5 286
NACE C						7 832		7 832	0.1	125 897
NACE D	2 000			9 283		80 113	1 853	93 249	1.3	674 703
NACE E						10 544		10 544	0.1	310 861
NACE F	216			4 899		49 536		54 651	0.7	398 131
NACE G	2 680			13 185		78 951	2 057	96 873	1.3	870 388
NACE H			883	394		30 094	6 962	38 333	0.5	116 669
NACE I	373			305		30 418	2 506	33 602	0.5	458 122
NACE J	87					568		655	0.0	197 385
NACE K			109 032	687		35 974		145 693	2.0	686 143
NACE L										634 362
NACE M	115					726		841	0.0	232 610
NACE N	215					4 490	376	5 081	0.1	247 462
NACE O	137			4 354		6 172	118	10 781	0.2	107 649
TOTAL	5 823		109 920	33 209		355 261	13 872	518 085	7.1	5 983 467
% of total adjustments	1.1		21.2	6.4		68.6	2.7	100.0		

3.2 EXHAUSTIVENESS ADJUSTMENTS BY TYPE ACCORDING TO TABULAR APPROACH

3.2.1 N1 PRODUCERS WHO DELIBERATELY AVOID REGISTRATION

The one part of entrepreneurs who deal with activities which belong to the households sector, deliberately fail to register their activities to avoid paying tax and other obligations. It is assumed that the number of these entrepreneurs is very small and adjustment for the non-exhaustiveness type N1 is also small, based on experts' estimate by using % to the output for the entrepreneurs, depending on the type of activity that they refer to. The adjustments are made for the following activities: manufacture industry, construction, trade, transport, financial intermediation, education, health and other service activities. The rate of deliberately failing to register for 2007 amounts to 0.08 % of GDP.

3.2.2 N2 ILLEGAL ACTIVITIES

According to the SNA and ESA methodologies, illegal production should also be included in the calculation. Estimates for illegal activities for the period 2003-2006 were made for drugs and prostitution, within the scope of the project Eurostat-OECD "To improve of the exhaustiveness of the National Accounts" for Western Balkan countries, in which BHAS and entity institutions took part. However, these estimates have not been included in GDP calculation still. The main problem for the calculation of illegal activities are data sources. Estimates of illegal activities are based on information delivered by the Ministry of the Interior and Ministry of Health. Calculation for drugs was made according to supply and usage, using information on drugs seized, purity of drugs, street price, types of drugs, dosage, estimated number of users and patients on treatment. Estimates for prostitution were difficult to make, because no institution delivered reliable information on this subject. Calculation was made according to the experiences of other countries.

Estimate of illegal activities for 2007 was not made at all.

3.2.3 N3 NOT OBLIGED TO REGISTER

This non-exhaustiveness type refers to the households sector, which, according to our legislation is not obliged to register. From the total GDP, 1.5 % goes to the non-exhaustiveness type N3. Adjustments are made for the following areas:

- Real rent;
- Private accommodation for tourism;
- Students' work;
- Copyright fees;
- Contractual work;
- Fishing for one's own needs.

Real rent calculation is done on the base of number of flats let out and the average rent paid at the territory of RS. Real rent share within GVA for K activity is 3.5 %. Intermediate consumption for real rent is done on the basis of National Accounts experts' estimates. The estimates for real rent are included in the households sector in the K activity.

The estimates of components relevant for calculating the data for private accommodation for tourism are done on the basis of the existing data for the entrepreneurs' (2% of the output for entrepreneurs in H activity) which is included in the households sector in the K activity.

The calculation of estimates for students' work is done according to the report of the Association of youth and students' co-operatives at the level of RS. The estimates are made based on the number of registered members, calculated gross payments for students and calculated commissions. In National Accounts, it is necessary to make corrections concerning students' work for those units that provide intermediation services for students' temporary jobs, (CEA 74.5), and which include their service charge for intermediation in their annual financial statements.

Expert estimate for copyright fees and contractual work is based on the item of the personal income tax, included in the Budget Report of the RS Ministry of Finance.

Since fishing does not have an important role in the economy as a whole, this adjustment is not significant, even though it exists.

3.2.4 N4 LEGAL PERSONS NOT SURVEYED (NON-REPORTING)

RSIS has Administrative register of legal entities (and their units); ID number and a code of principal activity is assigned to each legal entity at the time of registration. Update of the Administrative register is done by using databases of different administrative sources, such as Register of financial statements – APIF, register of taxpayers – Tax Authority, and information obtained through statistical surveys. As there is no SBR, this Administrative register serves as a standard framework for comparison of coverage of all

collected data. Each year, after taking over database with final annual statements of legal entities, comparison is made with the enterprises included in the register. For the enterprises that have not submitted their financial statements, the calculation is imputed. This non-exhaustiveness type has a share of 0.5 % in the total GDP. Also, gradual decrease of adjustments for this type is noticeable. According to the Law on enterprises and cooperatives, religious institutions are obliged to register in the administrative register as well, but they are not required to submit their financial statements. The Pension Insurance Fund has been contacted as persons employed in religious institutions are insured. On the basis of the number of insured persons, taking from Pension Insurance Fund and data on average salaries in O activity, which presents RSIS it is possible to do the adequate adjustments for non-reporting, which are included in the O activity.

3.2.5 N5 REGISTERED ENTREPRENEURS NOT SURVEYED

Individual entrepreneurs are not included in the Administrative register of RSIS. Municipalities deal with registration of individual entrepreneurs and determination of the principal activity is not based on existing CEA. According to the Law on craft and entrepreneurial activities, entrepreneurs have a possibility to decide about reporting on their business, by using double-entry or single-entry accounting. Number of submitted financial statements based on double-entry accounting system is very small, in relation to numbers who are in system of flat taxation. Tax assessment forms do not provide much information relevant to the calculation of GVA. Labour statistics conducts semi-annual survey on number of employees in the entrepreneurship sector, the data are derived from the Health Insurance Fund, according to the number of reported entrepreneurs and their employees. In addition, labour statistics is the data source on gross and net wages by activities. Based on these data, the calculations are done for the sector of entrepreneurship, until 2007. Since the existing sources of data were not reliable, RSIS conducted the survey on entrepreneurs for 2007, on the sample of those who employ five or more workers. Collected data relate to revenues, costs, compensation of employees, number of employees, investments and inventories. When calculating the components relevant for the calculation of GVA, evaluation of data is done for entire entrepreneurship sector based on number of entrepreneurs and their employees from labour statistics. Therefore, additional adjustment is not necessary for non-reporting of registered entrepreneurs.

3.2.6 N6 PRODUCERS DELIBERATELY MISREPORTING

The major part of NOE relate to non-exhaustiveness type N6 - Misreporting, and it amounts to 4.8 % of the total GDP. It is assumed that certain number of legal entities do not present correct financial statements, aiming to evade taxes and contributions. By analysing output, intermediate consumption and GVA by an employee, some underrated and overrated data have been obtained, so the corrections within this non-exhaustiveness type have been directed towards increasing output or decreasing intermediate consumption. After completing analysis of the components of GVA by an employee, more realistic image and the basis for estimate of the non-exhaustiveness type are obtained. Output by data sources for enterprises and entrepreneurs is adjusted using rate of 1-5%, depending on the activity and size. Intermediate consumption, after conceptual corrections have been made, is adjusted by 4%.

3.2.7 N7 STATISTICAL DEFICIENCIES

In the total GDP, non-exhaustiveness type N7 has a share of 0.2 %. Adjustments in this group refer to tips in those activities where they can appear, such as craft services, trade, hotels and restaurants, transport – taxi drivers, doctors, and hairdressers. The value of tips, according to experts' estimates, is in the range of 1-5 % of output by activities for different services.

CHAPTER 4

FUTURE PLANS

4.1 FUTURE IMPROVEMENTS

RSIS continually makes improvements in the area of national accounts. Even though currently there is only GDP by production approach, certain improvements and advances were made, all in order to harmonize with ESA 95 methodology. GDP by production approach was for the first time, in 2009, published on the A60 level in current and constant prices, which is a sort of improvement in comparison with previous years for which data were published on the A17 level. At the same time, methodological improvements were made for GDP calculation by production method for 2007, through conceptual corrections. According to this established and improved mode of calculating, revision of data for previous years will be done too, inclusive 2005. Development of sources of data, such as VAT basis, economic accounts in agriculture, introducing new surveys in branch statistics, will contribute to further improvement of the current mode of calculating.

Currently, national accounts department is preparing the calculating process and publishing of data for GDP by income approach for the first time for 2008 and retroactively for 2007, which is one more way of improvement and development of national accounts. Sources of data for this calculation are the same as for production approach, but some other sources of data, such as Labour Cost Survey are expected.

In future work, it is expected to have also the calculation of GDP by expenditure approach, which would introduce the possibility of harmonization of GDP obtained by production and expenditure approach. Available sources of data make it possible to do experimental GDP calculation by expenditure approach. Through introduction of regular annual HBS, as well as through harmonization of trade surveys with COICOP classification, there will be conditions for regular GDP calculation by expenditure approach.

It is necessary to introduce quarterly accounts, in order to be able to provide short-term information of importance for current economic policy, as well as to have insight into fluctuations of the business cycle.

Since Supply – Use Tables (SUT) are a good instrument for viewing the balance between demand and supply, it is expected that GDP calculation by all three approach will be more accurate and comprehensive.

There are no good sources of data for calculation consumption of fixed capital and it is necessary to pay special attention to this problem as well in the future work.

PART B**PRICE AND VOLUME MEASURES****CHAPTER 5****PRODUCTION METHOD, CONSTANT PRICES, 2009****5.1 GENERAL PROCEDURES**

GDP calculation at constant prices represents an important indicator of the dynamics and level of economic development, and it shows economic growth between different periods, while the influence of price changes is eliminated.

There are available data series for the period 2001-2009. The real growth rate at the A60 level is released at the same time as GDP at current prices, by production approach in the middle of July.

The calculation of GVA at constant prices is done according to the CEA, which is harmonised with international classification of activities Nace REV 1.1. Table 5.1 shows GVA at constant prices and real growth rates by activities. GVA at constant prices for each activity is obtained by summing up GVA for lower levels (divisions, subdivisions). GVA at constant prices is calculated as a difference between the calculation output and intermediate consumption at constant prices. The calculation of constant prices is applied to current values that include estimates of NOE as well.

When it comes to the calculation of constant prices, the previous year is the base year for the current year. This means that 2008 is the base year for GDP calculation at constant prices for the year 2009.

For the GDP calculation at constant prices for 2009, the single deflation method or the single extrapolation method for output was used, depending on available indicators. The use of single indicator implies the assumption of fixed I/O coefficients of the base year (the previous year). Exception are calculations of non-market activities in the following areas : Hotels and restaurants, Real estate,renting and business activities, Public administration and defense,compulsory social security, Education, Health and social work and Other community,social and personal service activities, where the deflation method was applied for intermediate consumption through use of the total consumer prices index.

Consumer prices index was used as a deflator for the first time in 2007. It differs methodologically from the retail prices index used for the previous years. Besides consumer prices index , important data sources are industrial production volume index, index of number of employees and gross wages index. Producer price indices are published beginning from 2008 and they are not used in constant prices calculation for 2009.

Real growth index is calculated by dividing values at constant prices in the current period and values from the previous year expressed at current prices (value at constant prices in 2009/value at current prices in 2008). Real growth rate for 2009 is -3.0 %.

Notwithstanding the fact that the double deflation method seems to be the best choice for the estimate of GVA at constant prices, it is not always applicable. Restrictions on data, especially lack of adequate deflators of intermediate consumption, might prevent the double deflation use. Existing data sources do not allow for possibility of using double deflation, but the works are oriented towards improvements and finding possibilities to start using previously mentioned calculating method in the near future.

5.1 Gross value added at constant prices and growth real rates by activities, 2009

	Gross value added	Growth real rates
	thous. KM	%
A Agriculture, hunting, forestry	944 863	-3.4
01 Agriculture, hunting and related service activities	840 487	-2.4
02 Forestry, logging and related service activities	104 376	-10.6
B 05 Fishing	5 562	1.9
C Mining and quarrying	151 629	-10.4
10 Mining of coal and lignite, extraction of peat	96 737	8.3
13 Mining of metal ores	39 968	-31.4
14 Other mining and quarrying	14 924	-31.0
D Manufacturing	753 707	2.3
15 Mfr. of food production and beverages	171 816	2.5
16 Mfr. of tobacco products	4 002	38.8
17 Mfr. of textiles	12 506	4.6
18 Mfr. of wearing apparel, dressing and dyeing of fur	26 742	-14.0
19 Leather tanning and dressing: luggage, saddlery handbags, shoes etc manufacture	41 598	-5.3
20 Mfr. of wood and wood, cork, straw and plaiting mat. products	63 370	-31.6
21 Mfr. of pulp, paper and paper products	16 982	1.9
22 Publishing, printing and reproduction of recorded media	20 828	-20.1
23 Mfr. of coke, refined petroleum products and nuclear fuel	159 512	660.6
24 Mfr. of chemicals and chemical products	10 395	24.0
25 Mfr. of rubber and plastic products	17 581	-24.6
26 Mfr. of other non-metallic mineral products	27 818	-11.7
27 Mfr. of basic metals	28 814	-39.5
28 Mfr. of fabricated metal prod., except machinery and equipment	64 293	-35.6
29 Mfr. of machinery and equipment n.e.c.	7 585	-45.0
30 Mfr. of office machinery and computers	7 266	11.4
31 Mfr. of electrical machinery and apparatus n.e.c.	12 095	-39.7
32 Mfr. of radio, television and common. equipment and apparatus	2 355	-70.9
33 Mfr. of medical, precision and optical instr., watches and clocks	10 428	24.9
34 Mfr. of motor vehicles, trailers and semi-trailers	7 339	0.7
35 Mfr. of other transport equip.	14 393	24.0
36 Mfr. of furniture, manufact n.e.c.	21 947	-29.0
37 Recycling	4 042	-25.7
E Electricity, gas and water supply	408 707	3.6
40 Electricity, gas, steam and hot water supply	367 829	3.6
41 Collection, purification and distribution of water	40 878	3.6
F 45 Construction	477 085	-6.0
G Wholesale and retail trade	1 013 298	-11.7
50 Sale, maintenance and repair of motor vehicles	110 503	-16.6
51 Wholesale trade and commission trade	487 885	-16.4
52 Retail trade, except of motor vehicles, repair	414 910	-3.7
H 55 Hotels and restaurants	111 582	-5.3
I Transport, storage and communication	520 858	-4.9
60 Land transport	122 439	-12.6
61 Water transport		
62 Air transport	97	27.4
63 Supporting and auxiliary transport activities, travel agencies activities	18 588	-39.8
64 Post and telecommunications	379 734	0.8
J Financial intermediation	259 420	17.5
65 Financial intermed., exc. insur. and pension funding	232 504	18.9
66 Insurance and pension funding	20 604	12.6
67 Activities auxiliary to financial intermediation	6 312	-9.1
K Real estate, renting and business activities	661 400	-6.1
70 Real estate activities	382 876	0.9
of which imputed rent	372 333	-0.1
71 Renting of machinery and equipment	1 959	-31.9
72 Computer and related activities	20 990	12.3
73 Research and development	5 450	7.0
74 Other business activities	250 125	-16.1
L 75 Public administration and defence	796 750	3.0
M 80 Education	336 611	4.0
N 85 Health and social work	403 546	3.1
O Other public, community, social and personal services	148 942	9.7
90 Sewage and refuse disposal and similar activities	36 366	4.0

5.1 Gross value added at constant prices and growth real rates by activities, 2009
(continued)

	Gross value added	Growth real rates
	thous. KM	%
91 Activities of membership organizations n.e.c.	30 297	-15.2
92 Recreational, cultural and sporting activities	79 265	28.2
93 Other service activities	3 014	-8.5
FISIM (minus)	235 594	29.3
GROSS VALUE ADDED	6 758 366	-3.0
Taxes on products	1 532 436	-3.0
Subsidies on products (minus)	60 137	-3.0
GROSS DOMESTIC PRODUCT	8 230 665	-3.0

CHAPTER 6

GENERAL INFORMATION ON MAIN SOURCES USED

Main sources of data used for the annual calculation of constant prices are indices of physical scope, consumer price indices and indices of number of employees, which are taken over from branch statistics in RSIS. Even though the Producer price index was not used for the calculation of constant prices for 2009, short review of it shall be provided in the following text.

6.1. THE PRODUCER PRICE INDEX

The Producer Price Index is a short-term statistical indicator which shows the dynamics of producer price changes.

Weights used for calculating the Producer Price Index present relative participation of chosen products in the total value of industrial products production on domestic market. Main source of data for weights calculation is the Annual Survey on Industrial Production IND-21 from 2006. Scheme of weights is changed every five years, while each year weights are corrected for the growth in prices occurring during that year.

The Producer Price Index is calculated according to the representative list of products which consists of 411 products in 2009. Each month 976 prices are collected. The most important products by industrial sections are covered. Questionnaire for producer prices is submitted monthly by 294 chosen enterprises. These are the largest producers, that is, those that have the largest realization by industrial sections.

When calculating the Producer Price Index it is necessary to first calculate elementary indices on the level of products, which represent ratios between current prices and the base price. (December of the previous year); then simple geometric mean of these ratios. From the elementary indices on the level of products aggregate indices are calculated, that is, indices of class, division, subsection, section, as well as the total index, using Laspeyres's formula for weighted arithmetic mean.

6.2. THE CONSUMER PRICE INDEX

The Consumer Price Index represents a measure of the average price changes for products (goods and services) which consumers buy for their own personal needs.

The Consumer Price Index is calculated using the representative list of products which consisted of 627 products. Each month 11 000 prices are collected according to the defined sample of retail stores and cities. The most important products and services which residents buy for their final spending needs are included. Sample of goods and services is revised regularly, in order to maintain the representative list of products, which takes into account consumers' choice and their shopping habits.

Weights used for calculating the Consumer Price Index represent the structure of average consumer spending, that is, they show relative participation of chosen products and services in total purchasing process. Main source of data for calculating the weights for the Consumer Price Index is the HBS from 2004. Each year weights are adjusted with price fluctuations of the previous year.

For the Consumer Price Index, first and foremost it is necessary to calculate the elementary indices (product indices) and indices of representative items on the level of towns. For this, geometric mean is used as a measure of average value. Aggregate indices are then calculated using the Laspeyres formula for weighted arithmetic area, beginning with the lowest level of indices of representative items, towards the level of total index for Republika Srpska. Basis of reference for calculating the index is 2005.

For calculating the Consumer Price Index, it is also necessary to use a classification of individual consumption (Classification of Individual Consumption by Purpose – COICOP) which divides products and services into twelve basic divisions for which indices are calculated.

6.3. VOLUME INDICIES OF INDUSTRIAL PRODUCTION

Data on industry production are obtained by the Monthly report of industry. The monthly report is submitted by enterprises working with assets in state, cooperative, mixed and private property, which are, according to The new CEA classified in the following sections : Mining and quarrying, Manufacturing and Electricity, gas and water supply. These data also cover the result of activities of all units working in industry production, and are members of non-industrial units.

Index of industrial production presents the result of overall industrial activity and represents summary of activities of all divisions and whole industry.

The products are classified in the divisions of activities, according to the principle of so called "homogenous production", by grouping products into suitable divisions, irrespective of the predominant activity of enterprise where they were produced. Data on production in quantities are defined in accordance with Nomenclature of Industrial Products.

Index of industrial production present the real achieved production in certain month from which seasonal and monthly variations, caused by different number of working days, are not eliminated.

The volume indices of industrial production are calculated according to the Laspeyeres formula. Weights are calculated at the basis of the selling values for the every individual product, taken from the Annual industry report IND-21 for 2005. Account for the industrial production index is done in several phases:

- Index for the class (4 figures of the product code) is calculated putting in the relation quantities of the products produced in the current period and quantities of the same products produced in the base period and multiplication with the product weight;
- Index for the division (2 figures of the product code) is presenting the sum of the product class index and class weight;
- Index for section (C, D, E) is presenting the sum of the division index and division weight;
- Index for the total industrial production is presenting the sum of the section index and section weight.

6.4 INDEX OF NUMBER OF EMPLOYED PERSONS

Number of employees is taken from the Department for labour statistics. Data on number of employed persons were obtained through Semi-annual survey on employees and their wages (RAD-1 March / RAD-1 September). Semi-annual survey on employees and their wages covers all legal entities and their territorially separated units that have employees, and which are registered in the Register of units of classification of RSIS. This survey does not cover employees in defense, employees which conduct their activities on their own agricultural holdings, employees in international organizations and in business units of legal entities whose headquarters are not in Republika Srpska, as well as Republika Srpska citizens employed in B&H branch offices abroad.

Employed persons are all persons who are employed for unlimited or limited period of time and who work in full or part time.

Data on number of employees are classified according to the CEA which is based on Classification of Economic activities NACE Rev 1.1.

Nominal index of employed persons is a ratio between number of employed persons in current year and number of employed persons in previous year.

CHAPTER 7**METHODS USED FOR CALCULATION OF GDP AT CONSTANT PRICES**

For the GDP calculation at constant prices for 2009, the single deflation method or the single extrapolation method for output was used, depending on available indicators. The use of single indicator means the assumption of fixed I/O coefficients of the base year (the previous year 2008). Exception are calculations of non-market activities in the following areas : Hotels and restaurants, Real estate,renting and business activities, Public administration and defense,compulsory social security, Education, Health and social work and Other community,social and personal service activities, where the deflation method was applied for intermediate consumption through use of the total consumer prices index.

Single extrapolation method presents extrapolation of output in base year with adequate indices of physical quantity.

Single deflation method presents deflation of output in the current year, with adequate indices of prices.

Sources of data and used indicators in constant prices calculation do not allow for strict classification of the calculating method for constant prices (A/B/C). According to this, we could say that for the calculation of output at constant prices at the level of activities could be classified as the C method, except the individual agriculture production where the method could be classified as the B. The method used for intermediate consumption calculation at constant prices, because of the lack of data on IC structure at relevant level of diversity, could be classified as the C method.

7.1 Summary table with indicators used for constant prices calculation by activities, 2009

Activity	Used indicators
A Agriculture, hunting, forestry	-The physical scope of agricultural production and average prices of agricultural products - The index of physical scope of forest assortments
B Fishing	- Consumer Price Index of raw fish
C Mining and quarrying	- The indices of the physical scope of industrial production
D Manufacturing	- The indices of the physical scope of industrial production
E Electricity,gas and water supply	- The indices of the physical scope of industrial production
F Construction	- Consumer Price Index for components of construction expenditure
G Wholesale and retail trade	- The revenue from sale of goods - Total Consumer Price Index
H Hotels and restaurants	- The index of tourist nights - Consumer Price Index for restaurants and bars - The index of students and pupils
I Transport,storage and communication	- Consumer Price Index for passengers transport by railway - Consumer Price Index for road transport - Consumer Price Index for transport services - Consumer Price Index for telecommunications and postal services
J Financial intermediation	- The indices of the volume of assets and liabilities of banks - The index of earned premiums - Total Consumer Price Index
K Real estate,renting and business activities	- Total Consumer Price Index - The index of population
L Public administration and defence, compulsory social security	- The index of number of employed persons for the L activity - Total Consumer Price Index
M Education	- The index of number of employed persons for the M activity - Consumer Price Index for education services - Total Consumer Price Index
N Health and social work	- The index of number of employed persons for the N activity - Consumer Price Index for health services - Total Consumer Price Index
O Other public, community, social and personal service activities	- The index of number of employed persons for the O activity - Total Consumer Price Index

7.1 AGRICULTURE, HUNTING AND FORESTY (A)

For the calculation of output for individual agriculture, the produced quantities from the current year are used at the level of agriculture products and data on average prices of agriculture products from the previous year. Data on produced quantities of crops and livestock products are obtained through regular surveys in agricultural statistics, as well as data on average prices of agriculture products. Output for agriculture enterprises at current prices is deflated with implicit deflator of output for individual agriculture.

For output calculation for forestry, we use the index of physical scope of forest assortments. Source is forestry statistics.

Intermediate consumption calculation at constant prices is calculated through fixed I/O coefficients from 2008, i.e. on the basis of structure of intermediate consumption at current prices in the base year, which is applied to the output at constant prices of the current year.

The real growth rate for A activity is -3.4 %.

7.2 FISHING (B)

Output for fishing at current prices is deflated with index of consumer's prices of raw fish.

Intermediate consumption calculation in prices from previous year is calculated according to I/O for previous year (2008) at current prices.

The real growth rate for B activity is 1.9 %.

7.3 MINING AND QUARRYING (C)

Output calculation at constant prices within C activity is done on disaggregated level (2 digit level). Output at current prices in the base year is extrapolated with indices of the physical scope of industrial production on the level of divisions. The source of data is industry statistics.

Intermediate consumption is calculated using I/O relation for the previous year (2008).

The real growth rate for C activity is -10.4 %.

7.4 MANUFACTURING (D)

Output calculation at constant prices in D activity is done on 2 digit level of activity. Output at current prices of the base year is extrapolated with indices of physical scope of industrial production on the level of divisions. Statistics of industry is the source of data.

Intermediate consumption is calculated using I/O relation for the previous year (2008).

The real growth rate for D activity is 2.3 %.

7.5 ELECTRICITY, GAS AND WATER SUPPLY (E)

Output calculation at constant prices in the E activity is done on the disaggregated level (2 digit level). Output at current prices in the base year is extrapolated with indices of physical scope of industrial production, on the level of divisions. Statistics of industry is the source of data.

Intermediate consumption is calculated using I/O relation for the previous year (2008).

The real growth rate for E activity is 3.6 %.

7.6 CONSTRUCTION (F)

This activity is, by nature, very special which is visible in usage of different indicators. Since there are no available adequate indices of prices for construction, construction output is deflated with structured inferred index compiled as weighted average of prices rate for main components of building costs (work, material, transport).

Intermediate consumption calculation at constant prices is done using fixed I/O coefficients, i.e. on the basis of the share of intermediate consumption at current prices of the base year (2008), which is applied to output at constant prices of the current year.

The real growth rate for F activity is -6.0 %.

7.7 WHOLE AND RETAIL TRADE(G)

Gross value added calculation for trade at constant prices is done in two phases. First phase is to, nominal indices of revenue from sales of goods, on the level 2 of activity codes, deflate with total Consumer price indices. In the next phase, with these real indices of sale, extrapolation of output at current prices in the base year is done. This approach implicates the assumption that trade margin rates at constant prices are fixed.

Intermediate consumption calculation at constant prices is done using fixed I/O coefficients from 2008, which are applied to output at constant prices for 2009.

The real growth rate for G activity is -11.7 %.

7.8 HOTELS AND RESTAURANTS (H)

Estimations at constant prices are calculated on the level of each of these four groups of activity, that is, for hotels, restaurants, catering trade and homes for students and pupils (on the level 3 of activity codes). Data on number of tourist nights are obtained from the tourism statistics, according to regular monthly surveys about tourist arrivals and tourist nights, with whose index output for hotels at current prices in the base year is extrapolated. Output at current prices for catering trade and restaurants is deflated with the corresponding consumer price index (consumer price index for restaurants, cafés and bars). For non-market producers, that is homes for students and pupils, output at current prices in the base year is extrapolated with index of number of students and pupils taken from education statistics.

Intermediate consumption calculation at constant prices for market producers is done using fixed I/O coefficients, i.e. according to share of intermediate consumption at current prices in the base year (2008), which is applied to the output at constant prices in the current year. The deflation method is applied to the intermediate consumption for non-market producers, by using the total Consumer prices index.

The real growth rate for H activity is -5.3 %.

7.9 TRANSPORT, STORAGE AND COMMUNICATION (I)

Constant prices estimates are calculated on the level 2 – activity codes by using the deflation method. Output at current prices are deflated with the corresponding the Consumer Price Indexes, railway transport is deflated with the Consumer price index for passengers transport by railway, divisions 60 and 62 of the classification of activities with the Consumer Price Indexes for road transport, and division 63 of the classification of activities with the Consumer Price Indexes for transport services. Output for telecommunications and postal services (division 64) is deflated with the corresponding price index for post and communication services.

Intermediate consumption calculation at constant prices is done using fixed I/O coefficients, i.e. according to share of intermediate consumption at current prices in the base year (2008), which is applied to the output at constant prices in the current year.

The real growth rate for I activity is -4.9 %.

7.10 FINANCIAL INTERMEDIATION (J)

For financial intermediation (area of monetary institutions – 65), when calculating constant prices, two types of services are differentiated: implicitly paid services and FISIM. For implicitly paid services, aggregate index is derived according to nominal index of revenue from implicitly paid services, as well as according to the total Consumer Price Index. With this calculated index the output for the base year is extrapolated. For the calculation of FISIM at constant prices we use calculated indicator of the volume, using measurements of the scope of bank fund stocks (assets) and obligations (liabilities) which include generation of flow of paid and received interests.

Put differently, interests received by the bank are extrapolated with index of the volume of stocks of bank fund (credits, loans to clients). On the other hand, index of the volume of bank's obligations in the form of deposits held by clients is used as an indicator of the volume for extrapolation of paid interest by the bank. Same as in cases of estimation of current prices of FISIM, estimation of FISIM at constant prices is equal to the difference between received and paid interests at constant prices. Index of the volume of bank fund and obligations is estimated through deflation of nominal indices of assets and liabilities with the total Consumer Price Index.

Indicator of the volume of output for insurance services is obtained through deflation of values of earned premium during the period. Deflator of the earned premium is the total Consumer Price Index. Output at current prices of the base year for the insurance area is extrapolated with this indicator of the volume.

Relation I/O for the previous year (2008) is applied to the estimation of output at constant prices for the calculation of intermediate consumption in prices of the previous year.

The real growth rate for J activity is 17.5 %.

7.11 REAL ESTATE, RENTING AND BUSINESS ACTIVITIES (K)

For the most business activities in the K activity, there are no available prices indices, so the output for market and non-market producers on the level 2-codes is deflated with the total Consumer Price Index.

Data on imputed rent at current and constant prices is calculated and delivered to RSIS RS by BHAS. Calculation of real rent at constant prices is done by extrapolation with the index of the population.

Calculation of intermediate consumption at constant prices is done using fixed I/O coefficients, i.e. on the basis of the share of intermediate consumption at current prices in the base year (2008), which is applied to the output at constant prices of the current year. The deflation method is applied to the intermediate consumption for non-market producers, by using the total Consumer prices index.

The real growth rate for K activity is -6.1 %.

7.12 PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY (L)

Calculation at constant prices for government activities is done by costs components. Output at constant prices is the sum of estimations at constant prices of compensation of employees, intermediate consumption, other taxes on production and consumption of fixed capital. GVA at constant prices is the sum of all these elements, apart from intermediate consumption. Compensation of employees at constant prices are calculated by extrapolation of output for the previous year using the index of number of employees for the L activity. Source for the number of employees is labour statistics. Calculation of intermediate consumption at constant prices was not done by using fixed I/O coefficients, instead deflation method was used. Since there is no specific deflator for intermediate consumption of government, total Consumer Price index is used as its deflator. The value of consumption of fixed capital is extrapolated by the aggregated index of costs (intermediate consumption and compensation of employees). The value of other taxes on production is deflated with total Consumer Price Index.

The real growth rate for L activity is 3.0 %.

7.13 EDUCATION (M)

In the education activity for public education, that is non-market producer, output at constant prices is the sum of estimations at constant prices of compensation of employees, intermediate consumption, other taxes on production and consumption of fixed capital. GVA at constant prices is the sum of all these elements, apart from intermediate consumption. Compensation of employees at constant prices are calculated by extrapolation of output for the previous year using the index of number of employees for the M activity. Source for the number of employees is labour statistics. Calculation of intermediate consumption at constant prices was not done by using fixed I/O coefficients, instead deflation method was used. Since there is no specific deflator for intermediate consumption of these budget users, total Consumer Price Index is used as its deflator. The value of consumption of fixed capital is extrapolated by the aggregated index of costs (intermediate consumption and compensation of employees). The value of other taxes on production is deflated with total Consumer Price Index.

Calculation at constant prices for the private sector is derived by deflation, using the Consumer Price Index for education services. Calculation of intermediate consumption for the private sector at constant prices is done using fixed I/O coefficients, i.e. on the basis of the share of intermediate consumption at current prices in the base year (2008), which is applied to the output at constant prices of the current year.

The real growth rate for M activity is 4.0 %.

7.14 HEALTH AND SOCIAL WORK (N)

In the activity of health care for public health care, that is non-market producer, output at constant prices is the sum of estimations at constant prices of compensation of employees, intermediate consumption, other taxes on production and consumption of fixed capital. GVA at constant prices is the sum of all these elements, apart from intermediate consumption. Compensation of employees at constant prices are calculated by extrapolation of output for the previous year using the index of number of employees for the N activity. Source for the number of employees is labour statistics. Calculation of intermediate consumption at constant prices was not done by using fixed I/O coefficients, instead deflation method was used. Since there is no specific deflator for intermediate consumption of indirect budget users, total Consumer Price Index is used as its deflator. The value of consumption of fixed capital is extrapolated by the aggregated index of costs (intermediate consumption and compensation of employees). The value of other taxes on production is deflated with total Consumer price Index.

Calculation at constant prices for private sector is derived by deflation, using Consumer Price Index for health care services. Calculation of intermediate consumption for the private sector at constant prices is done using fixed I/O coefficients, i.e. on the basis

The real growth rate for N activity is 3.1 %.

7.15 OTHER PUBLIC, COMMUNITY, SOCIAL AND PERSONAL SERVICE ACTIVITIES (O)

Calculation at constant prices for the O activity is done on the 2 digit level of the CEA, using extrapolation method with number of employees for O activity. What is different from the previously mentioned is that the calculation at constant prices for entrepreneurs is done by deflation of output with the total Consumer Price Index.

Calculation of intermediate consumption for the market producers at constant prices is done using fixed I/O coefficients, i.e. on the basis of the share of intermediate consumption at current prices in the base year (2008), which is applied to the output at constant prices of the current year. The deflation method is applied to the intermediate consumption for non-market producers, by using the total Consumer prices index.

The real growth rate for O activity is 9.7 %.

7.16 TAXES ON PRODUCTS

Because of lack of information on tax basis and accounted tax, calculation at constant prices for taxes on products is done by extrapolation with the index of real growth of the total GVA.

The real growth rate for taxes on products is -3.0 %.

7.17 SUBSIDIES ON PRODUCTS

Calculation at constant prices for subsidies on products is done in the same way as for taxes on products, that is, by extrapolation with the index of real growth of the total GVA.

The real growth rate for subsidies on products is -3.0 %.

7.18 FUTURE IMPROVEMENTS TO THE CONSTANT PRICE ESTIMATES

Since the method of double indicators is theoretically more reliable and of higher quality, the aim of the RSIS is to start using this method in the nearer future. For such calculation, sources of data should have to be much more developed. It would be necessary to provide:

- VAT basis;
- Import-export prices;
- New indicators through branch statistics development.

As it was already mentioned in the chapter 6.1 price statistics collects and processes data for producer price indices published in 2009. When calculating constant prices for 2009, Producer price indices were not used as deflators. In 2010, Economic Accounts for Agriculture were produced, and these covered the period 2005-2010, and this fact shall be used when calculating constant prices for 2010. For intermediate consumption on the lower level (by product and service), a Pilot survey on structure of revenue and expenditure of business entities was conducted in 2010, and it referred to the data for 2009. The structure thus obtain shall be used in future activities concerning national accounts (double deflation, input and output analysis, compilation of supply and use tables).

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