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Development of Supply and Use Tables

Supply and Use Tables for the former Yugoslav Republic of Macedonia

Prepared by State Statistical Office of Republic of Macedonia¹

Summary

The State Statistical Office of the Republic of Macedonia has compiled the Supply and Use Tables for the years 2005-2012 and Input Output Tables for 2005 and 2010. The compilation was based on the available data received from the regular statistical surveys and administrative data sources. The first aim of the tables was to check the availability and reliability of data and data sources needed for more detailed breakdown of gross domestic product aggregates into primary and secondary activities and by products.

Supply and Use Tables were used for the first time as a tool for balancing process of the gross domestic product for the estimation of the preliminary gross domestic product data for 2012 and for the National Accounts revision for the period 2005-2012.

The document describes the data sources used for compilation and balancing of the Supply and Use Tables, their use in the gross domestic product balancing process and compilation of the Symmetric Input Output Tables.

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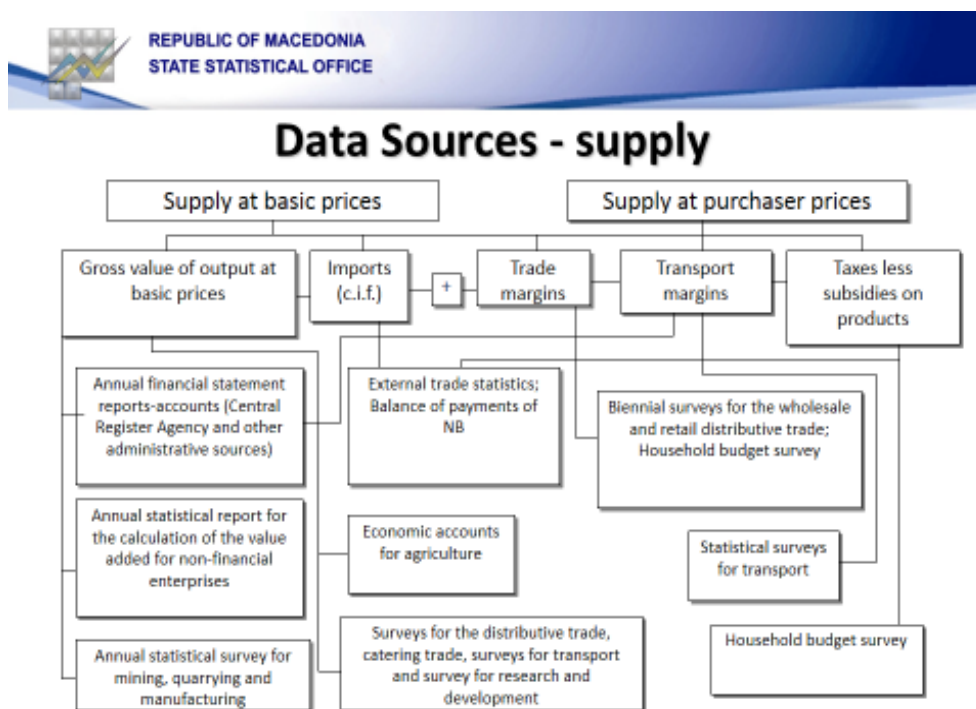
I. Introduction

1. The compilation of the Supply and Use Tables (SUT) within the State Statistical Office of the Republic of Macedonia is the responsibility of the Department for calculation of gross domestic product (GDP) by expenditure method, which is in the framework of the National Account Sector.
2. In 2004, following the needs for harmonisation with the European statistical system, the State Statistical Office started with experimental compilation of the Supply and Use Tables for the year 2000. The compilation was based on the methodological concepts, definitions and classifications recommended in the Statistical Office of the European Union (EUROSTAT) "Manual on Input-Output Tables", "United Nations Handbook of Input-Output Tables Compilation and Analysis" and methodologies of other countries.
3. The first aim of the SUT compilation was to check the availability and reliability of data and data sources needed for more detailed breakdown of GDP aggregates into primary and secondary activities and by products.
4. For the compilation of SUT, all available data from the statistical surveys carried out by the State Statistical Office and from administrative sources were used and no additional statistical survey was conducted for this purpose.
5. The concepts and definitions of the European System of Accounts (ESA) 95 - the same general rules of treatment for transactions as elsewhere in the System of National Accounts - were applied for the SUT compilation.
6. The compilation of SUT was supported: in 2005 with expert assistance from National Statistical Institute of Bulgaria; in 2007, the responsible person for the SUT compilation attended a training course for SUT in Sarajevo within the 3CARDS² Regional Programme on Statistics; in the period 2007-2013, European Union (EU) twinning projects were carried out for support to the State Statistical Office. The most important for the National Accounts was the expert assistance from the Czech Statistical Office.
7. In 2008 the State Statistical Office started the regular annual compilation of SUT at current prices (three years after the reference year). The SUT for the years 2005 to 2012 have been compiled, published and transmitted to Eurostat. The Symmetric Input Output Tables (SIOT) have been compiled for the years 2005 and 2010 (five-yearly periodicity).
8. Transmission of the tables to EUROSTAT was according to the EUROSTAT Transmission Programme and templates for SUT and SIOT (tables 15 and 16 at current prices and tables 17, 18 and 19).
9. Up to 2013, already calculated and published values of GDP aggregates at the level of Statistical Classification of Economic Activities in the European Community (NACE) divisions and totals were used as a frame for the compilation of SUT.
10. In 2013, SUT were used for the first time as a tool for balancing GDP data calculated by production and expenditure approach. GDP preliminary data for 2012 were balanced by SUT.
11. In 2014, the SUT at current and previous year prices were used as a balancing tool within the National Accounts revision for the period 2005-2012. The SUT for 2012 were compiled according to the ESA2010 methodology.

² CARDS stands for Community Assistance for the Reconstruction, Development and Stability of the Western Balkan countries.

II. Data Sources

A. Data sources for the Supply Table



12. A lot of data and data sources are necessary for the compilation of SUT. The data needed are in fact quite similar to those for national accounts compilation. However, for the SUT compilation, data classified by products are of particular importance.

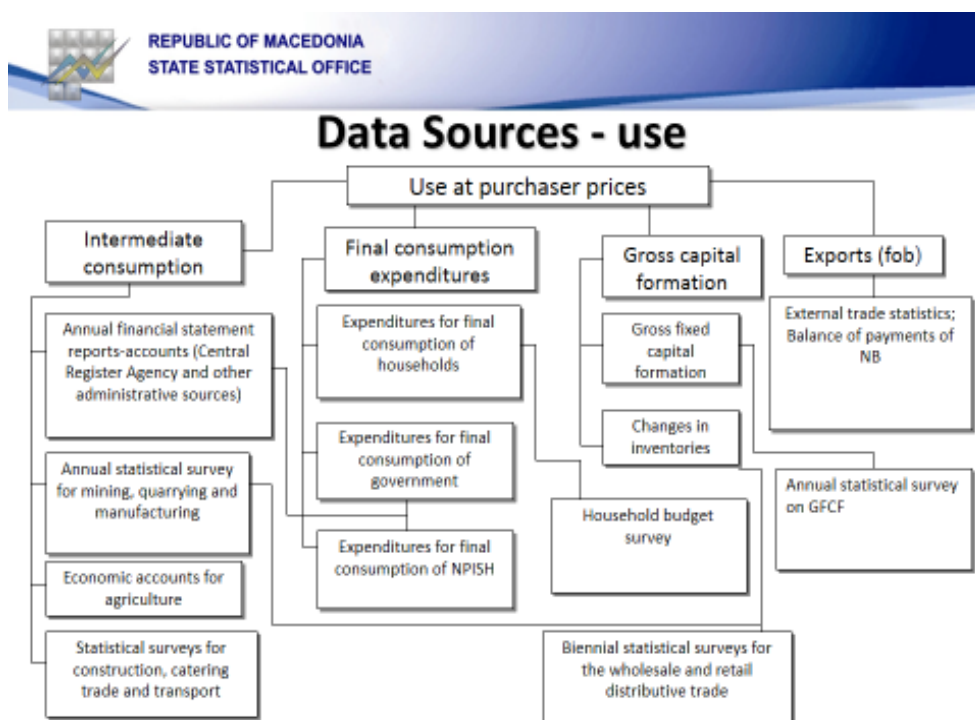
13. The compilation of the supply table is based on the following data sources:

- The full set of the Annual Financial Reports-Accounts: balance sheet, profit and loss report, receipts and expenditures report, cash flows report and structure of the capital report. All enterprises are obliged by law to submit the full set to the Central Register, which in turn submits the set to the State Statistical Office in electronic format. All data from those reports are stored in the Data Warehouse and processed in SAS software.
- Annual statistical survey for calculation of value added for non-financial enterprises is used to observe the secondary activities within the organisational structure of enterprises.
- Economic Accounts for Agriculture (EAA) are used to observe the commodity structure of the output of agricultural activity. EAA have been compiled annually since 1998 and cover all production activities and production units (including Households small farms). Near to 46 agricultural goods and services are presented in EAA.
- Annual statistical survey on mining, quarrying and manufacturing is used to distinguish the commodity structure of output of NACE activities 05-35. It is based on the Classification of manufactured goods in the European Community

(PRODCOM) list and provides detailed information about the commodity structure of production by activities.

- Annual statistical survey on construction, quarterly statistical survey on distributive trade, quarterly statistical survey on catering trade and annual statistical surveys on transport are used to distinguish the commodity structure of output of NACE activities 41-56.
- The values of imported goods and import duties in the supply table are distributed in accordance with the data from the external trade statistics and the Balance of payments of the National Bank of the Republic of Macedonia. Data on imported goods are shown in values including cost, insurance and freight (CIF).
- The wholesale trade margins by the Classification of Products by Activities (CPA) commodity groups are calculated by multiplication of the wholesale margin rates by the gross values of output and imports.
- The retail trade margins by CPA commodity groups are calculated by multiplication of the retail margin rates by the value of final consumption of households and purchases on the domestic territory by non-residents.
- The wholesale and retail trade margin rates are calculated on the basis of data from the trade and price statistics.
- The transport margins by CPA commodity groups are calculated on the basis of data from the annual statistical surveys on transport, annual financial statement reports-accounts of enterprises and other organisations and the data from the “Special form for the needs of Government”.
- Taxes on products comprise: value added tax (VAT), excise duties and import duties.
 - The theoretical distribution of VAT by CPA commodity groups is calculated by multiplication of the taxable purchases (final consumption of households, purchases on the domestic territory by non-residents, intermediate consumption and gross fixed capital formation for VAT non-payers) by the prescribed tax rates (5% and 18%).
 - The theoretical distribution of import duties by CPA commodity groups is calculated by multiplication of the value of imports by the prescribed customs rates on products.
 - Calculated (theoretical) taxes are afterwards adjusted to the data from tax records.

B. Data sources for the Use Table



14. The compilation of the use table is based on the following data sources:

- The commodity structure of intermediate consumption is based on the data from:
 - The Annual Financial Reports-Accounts of enterprises and other organisations as well as the data from the “Special form for the needs of Government”. These administrative data sources provide data on: expenditures on raw materials and other materials; operational and auxiliary materials; expenditures on office materials; spare parts; fuel for heating; fuel oils; food products; packing materials; expenditures on work uniforms, clothing and footwear; medicaments; materials for cleaning and maintenance; expenditures on water supply; expenditures on heating; electrical energy; expenditures on transport services in the country and transport services from abroad; post and telecommunication services in the country and from abroad; expenditures on real estate services; rental services for equipment; expenditures on R&D; daily and travelling allowances; expenditures on sponsorship; expenditures on marketing; representation; current maintenance; insurance premiums; banking services; membership dues.
 - Economic Accounts for Agriculture are used to observe commodity structure of the intermediate inputs of agricultural activity. The intermediate inputs of agricultural activity are distinguished with few main typical expenditure items: seeds and planting stock, energy, lubricants, fertilisers and soil improvers, plant protection products and pesticides, veterinary expenses, feeding stuffs, etc.
 - Annual statistical survey on mining, quarrying and manufacturing is used to observe the commodity structure of expenditures of raw materials, energy and fuels by NACE activities 05-35 and by domestic production and imports.

- Annual statistical survey on construction is used to observe the commodity structure of expenditures of building materials and energy by NACE activities 41-43.
- Annual statistical survey on expenditures of raw materials for food preparation in catering trade is used to observe the commodity structure of the intermediate inputs by NACE activities 55-56.
- Final consumption expenditures of households are based on data from the Household Budget Survey. There are several additional data sources, which are important and support the principal data source: data from the Public Revenue Office concerning VAT statistics, data from the Insurance Supervision Agency, data from the National Bank regarding other financial services and data directly taken from the bookkeeping documentation of companies that provide certain services to households (heating energy, electricity, games of chance, postal and communications services).
- Final Consumption expenditures of Government and Non-Profit Institutions Serving Households (NPISH) are based on data from Annual financial statement reports of the budget users and of the budget as well as the detailed fiscal data obtained from the Ministry of Finance.
- The Gross Fixed Capital Formation (GFCF) is based on data from the Annual statistical survey on investments, data from construction statistics, the commodity flow method for calculation of GFCF in the part of machinery and equipment, data from Annual Financial Reports -Accounts.
- The distribution of the changes in inventories by products is based on data from the annual statistical survey on mining, quarrying and manufacturing and the biennial statistical surveys on internal trade, but is mainly adjusted during the balancing process.

III. Compilation of the Supply and Use Tables

A. Compilation of the Supply and Use Tables at current prices

15. The SUT are compiled at the 2-digit level of activities (within the columns) according to the National Classification of Activities (NKD) – compatible with NACE REV.2 and at the 2-digit level of products (within the rows) according to the CPA 2008.

16. The Supply Table shows the total supply of goods and services in the former Yugoslav Republic of Macedonia from domestic production and imports. The production is defined at basic prices, which means that the valuation of the production of each type of product excludes distribution margins (trade and transport) and other taxes on products, while it includes other subsidies on products. The valuation of imports should be compatible with that of production and, therefore, imports by products are valued at CIF prices. The two components, output and imports, give the total supply at basic prices. The Supply Table also gives the total supply valued at purchasers' prices which is obtained by adding to the supply at basic prices, the distribution margins (trade and transport) and the taxes less subsidies on products.

17. The Use Table shows: the intermediate consumption by product and industry, the use of products for final consumption, gross fixed capital formation, exports, the change in inventories and the components of value added (compensation of employees, other taxes less subsidies on production, net operating surplus and consumption of fixed capital) by

industry. The use of goods and services for intermediate consumption and final consumption is valued at purchasers' prices, which are the prices that have to be paid by the purchaser.

18. The SUT data at current prices on output, intermediate consumption and gross value added components by activities are adjusted to the Sector Accounts data by the same group of activities. The Sector Accounts data are already adjusted with methodological and exhaustiveness adjustments and balanced by activities. Breakdown into primary and secondary activities and by product is elaborated on the basis of statistical surveys within the compilation of SUT.

19. As the Sector Accounts data are balanced by activities, column totals of the domestic Supply Table at basic prices (outputs by activity) are equal to the left hand side of the Use Table (inputs by activity). The activity (column) balance condition is fulfilled but is not fixed.

20. The Czech Statistical Office provided the National Account Sector with the MS Excel software for the compilation of the System of Tables (Sector Accounts and Supply and Use Tables).

21. The System of tables is established on one PC in the State Statistical Office. National Accounts staff has special permissions ("full control" or "read only") for online work on the tables.

22. The System provides full cooperation between National Accounts staff who work on the compilation of: Sector Accounts, Supply and Use Tables and GDP estimations at current and previous year prices.

23. The whole System is fully standardised, which enables comparability of data in the time series. Adding, deleted and merging of cells, columns and rows will cause breakdown of the system.

24. There are several Excel files (SUP, USE, SEK, SO etc.) interconnected by functional relations (links), comprising the whole System of tables.

25. SUP and USE files are designed for the compilation of the Supply and Use Tables, deflation and balancing commodity flows at current and previous years' prices.

26. Both files are mutually linked and include many sheets. Most sheets contain three types of tables:

- Input data is in the last table (on the bottom of the sheet),
- Tables with different adjustments are located in the middle and
- The first table on a sheet (on the top) contains resulting or final data (computed data + adjustments).

Table 1
Supply and use table for the former Yugoslav Republic of Macedonia, general overview, in million denars, 2012

		Total output	Imports (c.i.f)	Total supply of goods and services at basic prices (1+2)	Trade margins	Transport margins	Taxes less subsidies on products	Total supply of goods and services at purchaser prices (3+4+5+6)	Total intermediate consumption at purchaser prices	Final consumption expenditure by households	Final consumption expenditure by government	Total final consumption expenditure at purchaser prices	Gross Fixed Capital Formation	Changes in inventories	Exports f.o.b.	Total final use at purchaser prices (5+6+7+8)	Total use of goods and services at purchaser prices (1+9)														
																		SUPPLY							USE						
																		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CPA2008		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)													
A	Products of agriculture, forestry and fishing	70 934	8 548	79 482	13 007	126	2 331	94 946	44 510	33 807	32		33 839	650	4 082	11 865	50 436	94 946													
B	Mining and quarrying	12 501	17 369	29 870	1 130	614	50	31 664	23 535	629			629		4 281	3 219	8 129	31 664													
10; 11; 12	Food products, beverages and tobacco	64 323	33 030	97 353	31 825	80	17 661	146 919	20 433	98 933	166		99 099		7 459	19 928	126 486	146 919													
13; 14; 15	Textiles, wearing apparel and leather	21 224	6 345	27 569	6 748		3 732	38 049	12 548	16 168			16 168		- 5 101	14 434	25 501	38 049													
16	Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	1 764	3 106	4 870	185		124	5 179	2 768	493			493		1 637	281	2 411	5 179													
17	Paper and paper products	2 441	5 745	8 186	1 691	9	345	10 231	7 736	1 186			1 186		1 115	194	2 495	10 231													
18	Printing and recording services	4 449	31	4 480			7	4 487	5 067	75			75		- 656	1	- 580	4 487													
19	Coke and refined petroleum products	11 485	38 048	49 533	4 749	426	14 847	69 555	39 634	11 625			11 625		8 232	10 064	29 921	69 555													
20; 21	Chemicals, chemical products, basic pharmaceutical products and pharmaceutical preparations	18 437	31 380	49 817	7 631	16	2 208	59 672	21 100	9 245	2 100		11 345		- 2 925	30 152	38 572	59 672													
22	Rubber and plastic products	7 036	8 908	15 944	1 626		334	17 904	13 932	750			750		853	2 369	3 972	17 904													
23	Other non-metallic mineral products	11 351	8 298	19 649	2 609	375	574	23 207	20 002	699			699		- 382	2 888	3 205	23 207													
24	Basic metals	34 562	38 725	73 287	3 181	38	149	76 655	29 654	70			70		- 10 602	36 329	47 001	76 655													
25	Fabricated metal products, except machinery and equipment	7 966	5 841	13 807	1 090	85	456	15 438	14 057	690			690	388	- 1 560	1 863	1 381	15 438													
26; 27; 28	Computer, electronic and optical products, electrical equipment, machinery and equipment n.e.c.	29 825	38 354	68 179	7 111	65	3 037	78 392	29 342	9 257		40	9 297	23 651	- 1 522	17 624	49 050	78 392													
29; 30	Motor vehicles, trailers, semi-trailers and other transport equipment	1 599	13 641	15 240	2 521	1	2 210	19 972	2 944	8 329			8 329	7 303	- 831	2 227	17 028	19 972													
31; 32	Furniture; other manufactured goods	3 790	4 916	8 706	1 727		976	11 409	4 389	3 349		180	3 529	1 506	79	1 906	7 020	11 409													
33	Repair and installation services of machinery and equipment	1 221		1 221			28	1 249	1 236	13			13				13	1 249													
D	Electricity, gas, steam and air-conditioning	33 854	12 124	45 978			2 910	48 888	32 398	14 340			14 340			2 150	16 490	48 888													
E	Water supply, sewerage; waste management and remediation activities	7 751	1 073	8 824		52	189	9 065	4 395	2 881		441	3 322		220	1 128	4 670	9 065													
F	Construction works	84 308	2 011	86 319			1 584	87 903	13 959	547		1	548	70 618		2 778	73 944	87 903													
G	Wholesale and retail trade services; repair services of motor vehicles and motorcycles	91 442		91 442	- 87 085		212	4 569	3 269	1 300			1 300				1 300	4 569													
H	Transport and storage services	55 674	17 249	72 923		- 1 887	1 321	72 357	31 346	10 740		824	11 564			29 447	41 011	72 357													
I	Accommodation and food services	21 287		21 287			2 972	24 259	6 739	16 680		- 49	16 631			889	17 520	24 259													
J	Information and communication services	31 413	5 080	36 493	254		2 657	39 404	15 610	14 132	9	421	14 562	2 047		7 185	23 794	39 404													
K	Financial and insurance services	23 859	2 542	26 401				26 401	14 155	10 620			10 620			1 626	12 246	26 401													
L	Real estate services	67 625		67 625				67 625	5 390	62 234		1	62 235				62 235	67 625													
M	Professional, scientific and technical	22 982	13 804	36 786			1 048	37 834	25 212	259	8	685	952	3 228		8 442	12 622	37 834													
N	Administrative and support services	8 708	964	9 672			123	9 795	5 702	1 169	3	159	1 331			2 762	4 093	9 795													
O	Public administration and defence services; compulsory social security services	51 178	1 673	52 851				52 851	8 286	53		44 246	44 299			266	44 565	52 851													
P	Education services	22 006		22 006			245	22 251	693	5 248	49	16 261	21 558				21 558	22 251													
Q	Human health and social work services	24 311		24 311				24 311	486	3 572	189	20 064	23 825				23 825	24 311													
R	Arts, entertainment and recreation services	8 788	845	9 633			6	9 639	2 309	3 074	874	1 654	5 602	30		1 698	7 330	9 639													
S	Other services	7 299		7 299			683	7 982	1 086	4 246	2 647	3	6 896				6 896	7 982													
T	Services of households as employers; undifferentiated goods and services produced by households for own use	213		213				213	0	213			213				213	213													
	Total	867 606	319 650	1 187 256	0	0	63 019	1 250 275	463 922	346 626	3 977	87 031	437 634	109 421	25 583	213 715	786 353	1 250 275													

B. Compilation of the Supply and Use Tables at prices of the previous year

27. The State Statistical Office uses the previous year as the base year for national accounts deflation method. The SUT are used as the main tool for this deflation. The SUT provide a good and consistent framework for the calculation and balancing of national accounts aggregates at previous year's prices. Flows of goods and services (output, imports, intermediate consumption, final consumption expenditure of households (FHCE), final consumption expenditure of NPISH and of government, GFCF inventories and exports) are deflated at basic prices to which price indices refer. At the level of individual CPA commodity groups the same price indices at basic prices are used for all flows, which

enables consistency of used indices at the supply and use side. Margins and taxes are deflated separately on the use side and then transferred also to the supply side.

28. The whole process consists of decomposition of the SUT to individual value components and compilation of many sub-tables.

29. The supply table at basic prices is split into: imports and domestic output. The domestic output is split into: market output, non-market output and specific output (trade and transport margins, imputed rents and financial services indirectly measured (FISIM)). The domestic output is also split into: output for domestic use and output for export (total export reduced by non-resident purchases from imports and margins).

30. The row totals of the individual commodity groups for the supply and use side have to be equal in all value components. Therefore, the use table is calculated at basic prices (use at purchasers' prices less margins, taxes) because the use side has to be equal in all value components to the supply side. All components of the use table at basic prices (intermediate consumption, final consumption) are split into: use of imports and use of domestic output.

31. The respective price indices are applied to individual sub-tables of the supply and use side.

32. Market output for domestic use - is valued at basic prices and deflated by producer price indices (PPI).

33. The components of non-market output are deflated separately:

- intermediate consumption is deflated by implicit deflator from the use side by products,
- compensation of employees is deflated by change in average wage and
- consumption of fixed capital is deflated by general PPI.

34. Imports of goods and services are deflated by unit value indices of imports. Exports of goods and services are deflated by unit value indices of exports.

35. FHCE expenditure is calculated at basic prices and split into use of domestic output (deflated by PPI) and use of imports (deflated by unit value indices for imports).

36. Each of the valuation sets (VAT, trade and transport margins, subsidies on products, and taxes on products without VAT) is deflated separately. The rates of the previous year are applied on the uses of goods and services valued at previous year's prices (at basic values). Deflation is done in use table data and then transferred also to the supply side.

37. The individual components at prices of the previous year are then aggregated back and the SUT at previous year's prices are thus acquired.

38. From these tables, the volume and implicit deflators of output, intermediate consumption, value added, final demand components, at any level of aggregation, are derived in separate tables.

IV. Supply and Use Tables as an integral part of GDP balancing process

39. The annual estimates of GDP are produced independently with the production, expenditure and income approach.

40. Calculations of GDP with the production and expenditure approaches are carried out using separate data sources. Calculation of GDP with the income approach is also carried out, but uses the same data sources as the production approach.

41. The SUT framework provides a statistical framework to include the components of three approaches to measuring GDP, enabling a balanced estimate of GDP at current and previous year's prices to be achieved.

42. The process of SUT balancing is the final stage of the whole process of GDP estimation. The whole process of SUT balancing consists of several stages.

A. First stage of balancing SUT

43. The SUT are compiled and adjusted to the data on output, intermediate consumption and gross value added components, by activities, received from the Sector Accounts. Together with data by products, received from the GDP estimates by expenditure approach, the SUT are prepared for balancing.

44. As the Sector Accounts data are balanced by activities, column totals of the domestic Supply Table at basic prices (outputs by activity) are equal to the left hand side of the Use Table (inputs by activity). In this stage, the activity (column) balance condition is fulfilled but is not fixed. This means that during the process of SUT balancing by products, the data by activities can be adjusted too. The matrix nature of the SUT means that adjustments to one cell to bring a row into balance can introduce imbalances into other rows and columns.

45. The time series of individual aggregates are prepared in the necessary format and classifications and updated. Time series are prepared for: output, imports, net taxes on products (taxes minus subsidies), trade margins, transport margins, intermediate consumption, household consumption expenditure, government and non-profit institutions consumption expenditure, GFCF, acquisitions less disposals of valuables, changes in inventories and exports.

46. Time series for the period 2005-2012 at current and previous year prices are prepared in several files with many sheets:

- Output, intermediate consumption, ratio intermediate consumption/output by 88 NACE activity groups;
- Output for each of the 88 NACE activity groups by CPA commodity groups (commodity structure of output);
- Intermediate consumption for each of the 88 NACE activity groups by CPA commodity groups (commodity structure of intermediate consumption);
- Commodity structure of all individual aggregates (output, imports, net taxes on products, trade margins, transport margins, intermediate consumption, household consumption expenditure, government and non-profit institutions consumption expenditure, gross fixed capital formation and acquisitions less disposals of valuables, changes in inventories and exports) at 88 CPA commodity groups.

B. Second stage of balancing SUT

47. In the second stage the product balance condition should be achieved. The main goal of the balancing process by commodity group (horizontal balancing) is to find a balance between sources and uses (supply and demand) of each commodity group. Total supply of

each commodity group has to be equal to the total use of the same group ("commodity flows" method).

48. There are no strict rules how to make balancing adjustment in order to balance commodity flows. The most important is the history and expert knowledge. The balancing process is based on the analysis of time series of individual aggregates by activities and products and on comparison with price indices and alternative indicators (quarterly estimates of GDP, industrial output index, index of construction work, sales indices in the individual industries).

49. Major deviations from the average values in time series of respective aggregates or ratio indicators are subjected to thorough analysis in order to reveal possible errors in the source data. If there are no source data errors detected and there is no explanation for the deviation, the figures are adjusted by balancing corrections. Usually the figures are manually adjusted to follow the trend of a related indicator. The difference between supply and use within one commodity group is allocated to one or more aggregates (intermediate consumption, FHCE, GFCF or changes in inventories).

50. After the deflation procedure is finished, the time series of aggregates in industry and commodity breakdown is checked again and significant inconsistencies are adjusted.

C. Third stage of balancing SUT

51. When manual adjustments have brought the tables into an "almost balanced" state, minor discrepancies by commodity groups are eliminated using the RAS excel application. RAS procedure enables to change the intermediate consumption matrix and distribute the small differences in the intermediate consumption. The required data for RAS procedure are: an initial structure of the intermediate consumption matrix and a new frame (row sums and column sums).

52. The pre-balancing and the post-balancing data are compared systematically and any balancing adjustments are documented for all compiled SUT.

53. Balancing adjustments made in the Supply and Use Tables are provided to Sector Accounts to be incorporated in the goods and services account, sector and sub-sector figures. Full consistency between Supply and Use tables and Sector Accounts is obtained.

54. GDP estimates with the production and expenditure approaches are balanced through SUT.

Table 2
Goods and services account

Balancing difference SUT 2012					
ESA 2010		Initial data	Final data	Adjustment	%
Current prices		before balancing	after balancing	balancing	balancing
P.1	Output	866,079	867,606	1,527	0.2%
D.21	Taxes on product	63,577	63,688	111	0.2%
D.319	Other subsidies on products	-669	-669	0	0.0%
P.7	Import of goods and services	324007	324007	0	0.0%
	Supplies	1,252,994	1,254,632	1,638	0.1%
P.2	Intermediate consumption	459,326	463,922	4,596	1.0%
P.3	Final consumption expenditures	378,667	431,883	53,216	14.1%
	of which households	287,659	340,875	53,216	18.5%
P.5	Gross capital formation	121,401	135,004	13,603	11.2%
	of which GFCF	96,151	109,071	12,920	13.4%
	Inventories	25,250	25,583	333	1.3%
	Valuables	0	350	350	100.0%
P.6	Export of goods and services	221563	223823	2,260	1.0%
	USES	1,180,957	1,254,632	73,675	6.2%
	Balancing difference	72,037	0	-72,037	x
	Gross value added	406,753	403,684	-3,069	-0.8%
	GDP output approach	469,661	466,703	-2,958	-0.6%
	GDP expenditure approach	397,624	466,703	69,079	17.4%
P6-P7	Net export	-102,444	-100,184	2,260	-2.2%
P3+P5	Gross domestic expenditures	500,068	566,887	66,819	13.4%

V. Transformation of Supply and Use tables into Symmetric Input-Output Tables

55. Symmetric Input-Output Tables are compiled on a five-yearly basis. The State Statistical Office has compiled and published input-output tables for the years of 2005 and 2010.

56. Supply and Use Tables serve as the basis for the derivation of Symmetric Input-Output Tables. The method based on the “product technology” assumption is applied for the derivation of symmetric “product-by-product” input-output tables. This method assumes the transfer of secondary products from the industry where they were produced to the industry in which they represent the primary products. The input structure of the primary producer serves as basis for derivation of the input structure of the product.

57. A Symmetric Input-Output Table is elaborated with the conversion of SUT valued at basic prices. The transformation only rearranges, on the basis of the output table and the

assumption applied, the columns of the intermediate consumption from the use table at basic prices. In this transformation the final use data are left unchanged.

58. Symmetric Input-Output Tables are produced using the special MS excel application for symmetric I-O table conversion provided by the Czech Statistical Office. Symmetric product-by-product input-output tables are compiled at the 2-digit level of CPA for total, domestic production and imports.

VI. Conclusions

59. The Supply and Use Tables are fully integrated into the National Accounts compilation process and provide an adequate accounting framework for compiling consistent and reliable national accounts data.

60. The Supply and Use Tables became an important tool for reconciliation of GDP data in an integrated approach.

61. As a result of everything mentioned above, the Supply and Use Tables will continuously develop and improve.
