

Supply – Use and Input – Output tables in Albania: 2012

Tirana, February 26, 2016: INSTAT presents to users consolidated Supply and Use Tables and derived Input-Output Table for the reference year 2012.

After the first release of Supply and Use Table (SUT) at current prices for years 2009 – 2011 and derived Input-Output Tables (IOT) for year 2011, INSTAT releases the tables for year 2012 according to the Nomenclature of the Economic Activities Rev. 2 (NACE Rev.2) and the Nomenclature of Products by Activity (CPA 2008). The compilation of tables is based on methodology provided on Manual of Supply, Use and Input-Output Tables and harmonized with concepts and definitions of European System of Accounts (ESA 2010).

Supply and Use Tables

The supply and use tables offer the most detailed portrait of an economy. They highlight the inter-industry flows that lie behind the national accounts main aggregates and provide a detailed analysis of the process of production and the use of goods and services (products). Supply and use tables are an effective statistical tool serve primarily as a balancing framework that reconciles the GDP estimation also check the consistency and completeness of national accounts data. The compilation of SUT is a complex process and requires the most detailed information, providing more reliable and consistent calculations of GDP by production and expenditure approach.

The supply and use tables provide the main macroeconomic aggregates such as GDP, value added and output by industry, import, final consumption, gross capital formation, export, etc. For a more detailed macroeconomic analysis these can be integrated with macro-models in order to analyze linkages between industries and also provide a link between final demand and industry output levels.

Compilation and the balancing of these tables is done at detailed level A88 industries according to NACE Rev.2 and P88 products according to CPA 2008 and released at the aggregated level A36 activity-division and P36 product-division to be in line with other National Accounts Indicators. In table 1 is shown a summary of the 2012 supply and use tables.

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Tab. 1 Supply and use tables at current prices for year 2012, in ALL millions

Industries (NACE)	Agriculture	Industry	Services	Total output of products	Imports	MTT*	Total supply	Agriculture	Industry	Services	intermediate consumption of products	FD**	Total use
Products (CPA)	1	2	3	4=1+2+3	5	6	7=4+5+6	8	9	10	11=8+9+10	12	13=11+12
Agriculture	253,238	371	3	253,612	22,940	59,931	336,484	73.808	20.047	10.945	104.800	231.683	336.484
Industry	95,416	807,937	3,126	906,479	463,770	367,468	1,737,718	22.852	458.615	191.120	672.587	1.065.130	1.737.718
Services	1,155	46,550	983,513	1,031,218	206,177	-249,288	988,107	3.023	70.735	185.417	259.176	728.931	988.107
Total	349,809	854,858	986,643	2,191,310	692,887	178,112	3,062,308	99.683	549.397	387.483	1.036.563	2.025.745	3.062.308
Value Added								250,126	305,460	599,160	1,154,746		

* Trade, transport margins and net taxes on products

** Final demand components (household and government consumption, export, GFCF and changes in inventories)

Supply Table

This table provides estimates of the supply of goods and services (products) by domestic industries as well as imports of goods and services. The supply of products is presented in the rows while the columns show the industry branches that produce these goods and services.

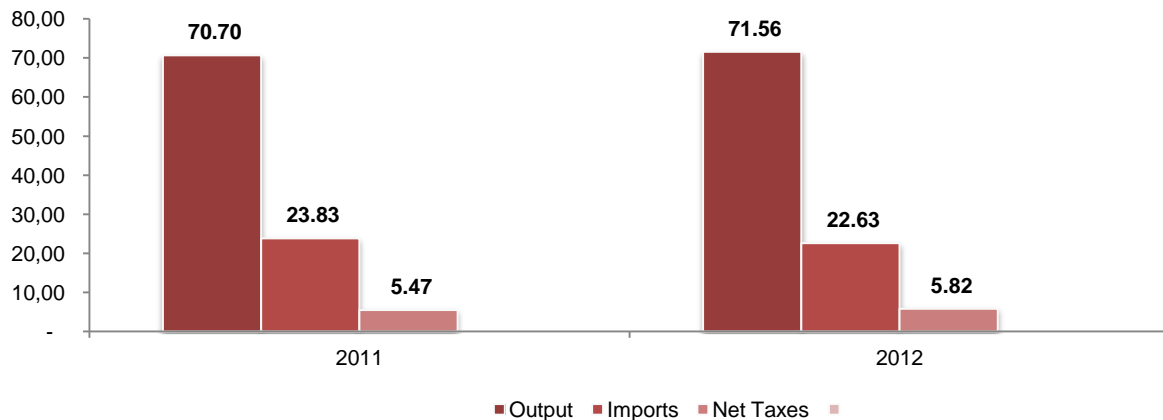
The values of the domestically produced products and import in the supply table are shown initially at basic prices while they are transformed to purchasers' prices in the final columns, where for each product are added the net taxes on products (taxes less subsidies on products), trade and transport margins. This transformation of supply from basic prices to purchasers' prices is done in order to have balanced supply and use at the same valuation system, at purchasers' prices.

Tab. 2: Supply table, at basic prices including transformation into purchaser's prices, in ALL millions

Industries (NACE)	Agriculture	Industry	Services	Total Output	Imports	Trade and transport margins	Taxes less subsidies on products	Total supply at purchasers' prices
Products (CPA)	1	2	3	4=1+2+3	5	6	7	8=4+5+6+7
Agriculture	253,238	371	3	253,612	22,940	52,582	7,349	336,484
Industry	95,416	807,937	3,126	906,479	463,770	205,784	161,684	1,737,718
Services	1,155	46,550	983,513	1,031,218	206,177	-258,367	9,078	988,107
Total output by activity	349,809	854,858	986,643	2,191,310	692,887	0	178,112	3,062,308

Domestic production represented 71.56 % of total supply on domestic territory at purchasers' prices in 2012. The share of imports was 22.63 % while 5.82 % was the share of net taxes (taxes less subsidies on product). In 2012 total supply in current prices decreased by -1.16 % in nominal terms compared with year 2011, impacted by the decrease of imports by -6.12 % in nominal terms.

Fig. 1 Structure of the supply, in %



As regard domestic production structure in products for reference year 2012 goods contributed 52.94 % and services contributed 47.06 %.

The share of goods in imports for 2012 was 70.24 % and the share of imported services was 29.76%.

Fig. 2 Supply structure by products, in %

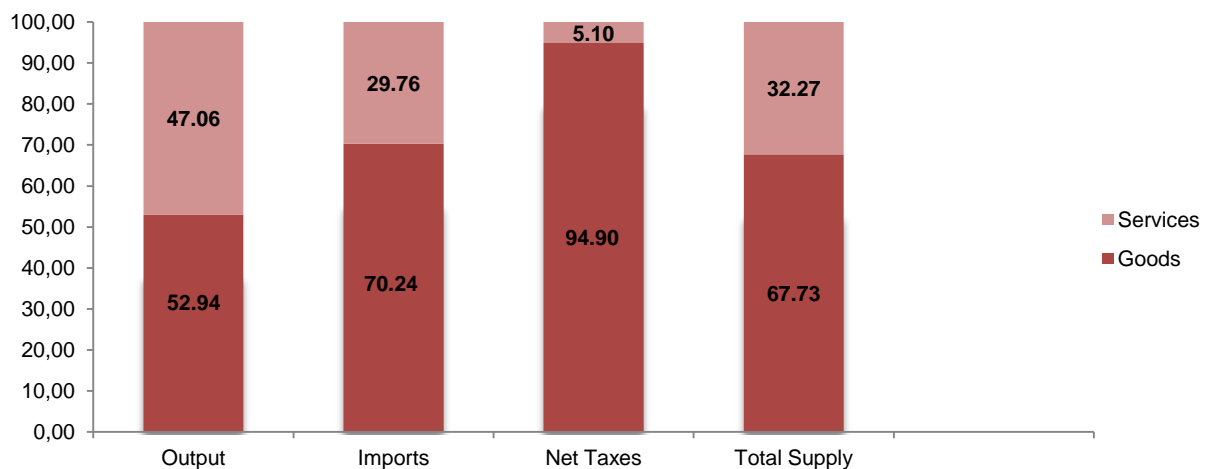


Table 3 shows total supply of product at basic prices for reference year 2012 where dependent on domestically produced or imported goods.

Tab. 3 Structure of supply at basic price according origin

Products (CPA)	Domestic produced goods		Imports	
	ALL millions	%	ALL millions	%
Agriculture, forestry and fishing	253,612	11.57%	22,940	3.31%
Industry	544,036	24.83%	463,532	66.90%
Construction	362,443	16.54%	238	0.03%
Trade; transport; accommodation and food service activities	416,700	19.02%	112,357	16.22%
Information and communication	106,327	4.85%	21,855	3.15%
Financial and insurance activities	54,726	2.50%	15,527	2.24%
Real estate activities	110,056	5.02%	0	0.00%
Professional, scientific, administrative and support service activities	107,222	4.89%	14,229	2.05%
Public administration, education, human health	189,704	8.66%	13,972	2.02%
Arts, entertainment and recreation activities and other services	46,483	2.12%	28,237	4.08%
Total supply at basic prices	2,191,310	100%	692,887	100%

Related to structure of domestic production at basic prices for reference year 2012 aggregated at 10 CPA group-products, main share is represented by Industry products which accounted 24.83 % followed by Trade, transport, accommodation and food service activities with 19.02 % and Construction 16.54 %.

Imported goods in 2012 were predominantly also from Industry products with 66.9 % followed by Transport and Post-communication services by 16.22 % and Other Services 4.08 %.

Use Table

Use table shows the use of products by domestic industry and by the final demand sectors, i.e. consumption by households, government, non-profit organizations serving households (NPISH), capital formation (GFCF) and export. The use table has two main objectives, firstly, it reveals by column the input structure of each industry and secondly, it describes in the rows the use of different products and services.

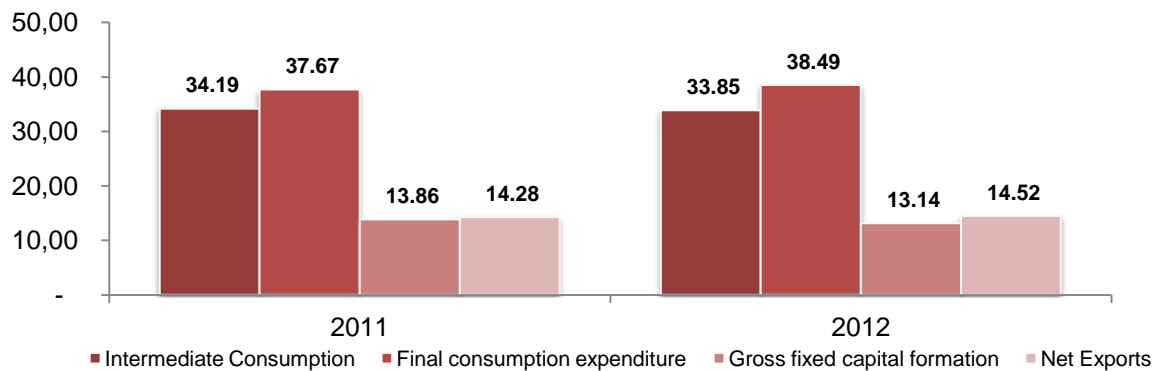
Tab. 4 Use table, at purchaser's prices, in ALL millions

Industries (NACE)	Intermediate Consumption				Final Demand			
	Agriculture	Industry	Services	Total Intermediate Consumption	Exports	Final consumption expenditure	Gross fixed capital formation	Total use at purchasers' prices
	1	2	3	4=1+2+3	5	6	7	8=4+5+6+7
Agriculture	73,808	20,047	10,945	104,800	7,292	214,413	9,978	336,484
Industry	22,852	458,615	191,120	672,587	207,903	472,864	384,364	1,737,718
Services	3,023	70,735	185,417	259,176	229,320	491,515	8,096	988,107
Total intermediate consumption of industries	99,683	549,397	387,483	1,036,563	444,514	1,178,791	402,439	3,062,308
Value added	250,126	305,460	599,160	1,154,746				

During year 2012, the use of disposable goods and services on the domestic territory and exported in foreign countries represented the following structure: 33.85 % was used for intermediate consumption in production processes, 38.49 % for final consumption by households and government consumption, 13.14 % by gross fixed capital formation and 14.52 % was exported.

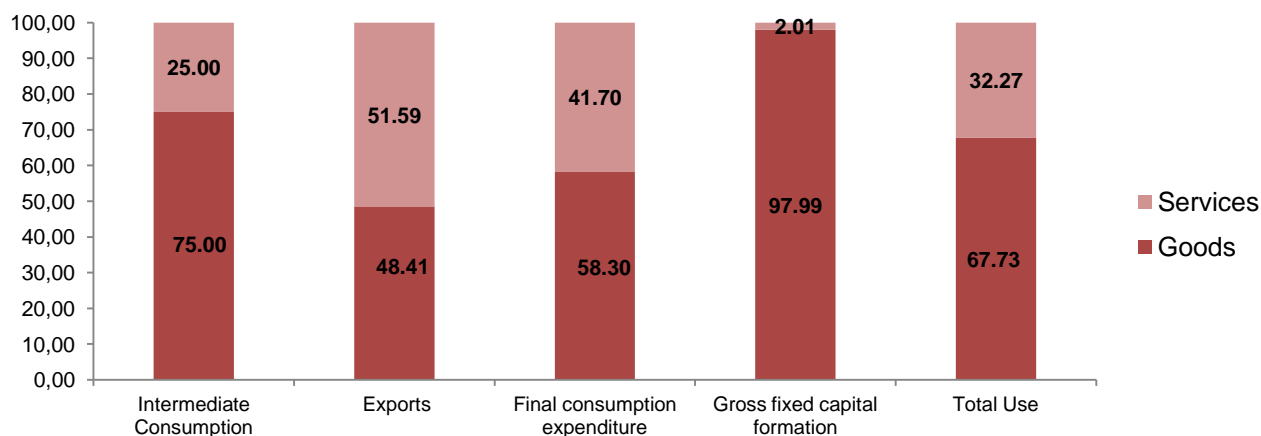
As is shown in figure 3 year 2012 has not major changes in the structure of use of products at purchasers' prices compared with year 2011.

Fig. 3 Use table structure, in %



As regard the structure of use table components breakdown in goods and services (Fig. 4), intermediate consumption had 75.00 % share of goods and the rest 25.00 % share of services. In final consumption goods represented 58.30 % and in exports 48.41 %, while services accounted respectively 41.7 % and 51.59 %. Gross fixed capital formation is compounded by 97.99 % share of goods and 2.01 % share of services.

Fig. 4 Use structure by products, in %



Input-Output Table

Consolidated Supply and Use Tables are the base from where is derived Symmetric Input-Output Table (SIOT). The transformation of the supply and use tables to input-output table is based on the fixed products sales (each product has its own specific sales structure, irrespective of the industry where it is produced. The term "sales structure" indicates the proportions of the output of a product in which it is sold to the respective intermediate and final users) compiling the *industry x industry* table. Input-Output Table is a derivation of use table moving the secondary output up or down the column to the corresponding position of main output for that industry passing in homogeneous industries.

In table below is presented Input – Output table for the reference year 2012, at basic prices.

Tab. 5 Input – Output Table at basic prices, in ALL millions

Industries (NACE)	Industries (NACE)			Total output of products	FD**	Total Use at basic prices
	Agriculture	Industry	Services			
Agriculture	63,934	20,833	17,182	101,949	270,800	372,749
Industry	13,712	370,414	130,533	514,660	803,968	1,318,628
Services	17,070	121,747	201,685	340,502	852,317	1,192,819
Total	94,716	512,994	349,401	957,111	1,927,086	2,884,197
Taxes less subsidies on products	4,968	36,400	38,084	79,452	98,660	178,112
Total Intermediate Consumption / Final use at purch.' prices	99,684	549,395	387,485	1,036,563	2,025,746	3,062,308
Value added at basic prices	255,093	341,864	637,242	1,234,199		
Output at basic prices	349,809	854,858	986,643	2,191,310		
Imports CIF	22,940	463,770	206,177	692,887		
Supply at basic prices	372,749	1,318,628	1,192,819	2,884,197		

** Final demand components (household and government consumption, export, GFCF and changes in inventories)

Information for Users

Methodology and classification

Supply and Use Tables calculations are based methodologically on the basic concepts of the European System of Accounts (ESA 2010) and the System of National Accounts (SNA 2008) of the United Nations Organization (UN). SUT compilation requires a large number of data gathered in a highly detailed level. The Information sources used in this system are of the most varied and in many cases can also be secondary, but they can play an important role in balancing the flow of products. In addition, the methodology of preparation of SUT and TIO refer to the link:

<http://www.instat.gov.al/en/themes/national-accounts/publications/books/2015/supply,-use-and-input-output-tables-in-albania-2009-2011.aspx>

Classifications used in National Accounts are: - Nomenclature of economic activities (NACE Rev. 2). - Nomenclature of products (CPA); - Classification of Individual Consumption According to Purpose (COICOP); - Classification of the Functions of Government (COFOG).

Data sources

To calculate SUT it is used the information provided by various statistical and administrative sources. The data used can come from INSTAT's statistics products or other various national institutions such as Ministries, Departments of the General Taxation and Customs, the National Registration Center, Bank of Albania, Financial Supervisory Authority, the National Agency of Natural Resources and others. By comparing these sources with each other, we are able to have a better view of the economy which is comprehensive, consistent, coherent and fully integrated.

Statistical sources include data obtained from records and surveys on various economic units or households, among which we may mention: the Register of Enterprises; Structure Survey; Retail Trade Survey; Household Budget Survey; Price Statistics Survey, Statistics agriculture and the environment, etc.

Administrative resources include administrative data collected by other institutions for various purposes, among which we may mention: the Annual Financial Statements; Value added tax (VAT); Balance of Payments; Government fiscal statistics; Foreign trade statistics; The sales and purchases; etc.

Balancing process

The balancing of supply and use table is a very important process. After a detailed processing for each product, all the supply of a country must equal to uses. In many cases this is difficult to be reached since the first step of using data sources, for this reason the analysis are done at product level.

Before we look at product discrepancies, is analyzed the statistical discrepancies between two different approaches of GDP estimation. In the supply and use framework this discrepancies are eliminated and therefore is required to be achieved this macroeconomic balance.

In cases where the discrepancies between the supply and use are greater than 5%, is used an automatic balancing based on the distribution of the existing discrepancies ratios. When the discrepancies are between 5% and 10%, it can be relied on manual analysis and balancing of the discrepancies. If discrepancies are greater than 10% the situation requires adjustment of the primary data sources. It is necessary to check the data sources to better understand what has inflicted the discrepancies.

It may be necessary for a revaluation of different component of the supply or use table, which would lead to a circular cycle of evaluations. This cycle will be continuous until all the discrepancies arrive within acceptable intervals enabling a full consistency between different approaches of GDP estimation.

Definitions

The Supply and Use tables at current prices: SUT framework at current prices in Albania is evaluated at a level of 88 products and 88 industries corresponding to NACE rev 2 two digit level. Analyses were conducted according to CPA 2, 4 and 6-digit classification enabling a clear view of a commodity flow in the economy. To compile SUT in Albania are conducted a series of analyzes and studies in order to provide an efficient use of the statistical and administrative data sources. Special focus is put mainly level of detail of data to move to a greater breakdown potential.

Output: production is an activity carried out under the control, responsibility and management of an institutional unit that uses inputs of labour, capital and goods and services to produce outputs of goods and services. The total of products created during the accounting period is considered as output. There are three types of output such as: market output; output produced for own final use; non-market output.

Intermediate consumption: Intermediate consumption consists of goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital. The goods and services are either transformed or used up by the production services.

Taxes on products and imports: Taxes on products are paid taxes per unit of some goods and services like the Value Added Tax, excise and customs' tax on imports.

Subsidies on products: Subsidies on products are non-reverse payment made by public administration units to the companies in the form of a certain amount of money per unit of goods or services. Subsidies on imports consist

in subsidies of goods or services payable when the product surpasses the border of economic territory or if the services were made to resident institutional units.

Final consumption: Final consumption is one of the basic components of GDP by expenditure method. It consists in goods and services used by separate families or communities and are calculated as the sum of final consumption of household, final consumption of general government and final consumption of non - profit institutions serving the households.

Final consumption of households: Final consumption of households' contains all goods and services directly used to fulfill the individual needs of resident families.

Final consumption of General government and Non Profit Institutions Serving Households (NIPSH): Is the value of non - commercial services ensured by General government and non - profit institutions to the profit of communities or groups of families. It is calculated as the difference between the general government production and NPISH s and their market production value.

Net Export: Net export is the difference between export of goods and services (fob) and import of goods and services (fob).

Imports of goods and services: consist of the value of transactions in goods and services to residents with non-residents.

Gross fixed capital formation: Consists in expenses made to buy new capital or other specific expenses accomplished by resident producers in goods or services to maintain, increase or enlarge their productive activity or create new process conditions in the future.

Changes in inventories: Is defined as the difference between inventories of stocks in process and circulating assets by the end of the year and beginning of the other one. Inventories include raw material and others, products, works and services in process, not finished and finished goods, animals etc.

Trade Margins: The value of trade margins represents the output of wholesalers and retailers. European system of accounts (ESA 2010) defines trade margin is the difference between the actual or imputed sale price realized on a good purchased for resale, and the price that would have to be paid by the distributor to replace the good at the time it is sold or otherwise disposed of.

Transport margin: Transport margins include transportation costs paid separately by the purchaser and included in the use of products at purchasers' prices but not in the basic prices of a manufacturers' output or in the trade margins.

Basic prices: is the price receivable by the producer from the purchaser for a unit of a good or services produced as output, minus any tax payable and plus any subsidy receivable on product. It excludes any transport charges invoiced separately by the producer.

Market prices: is the price after adding taxes and deducting subsidies on products.

Current prices: Prices of reference period. They represent the price paid for goods and services during the time of production or consumption.