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## **Quarterly Economic Growth**

### Third Quarter, 2014

**Tirana, January 9, 2015:** According to indicator of Gross Value Added (GVA) the economic activity in the third quarter of 2014 in volume terms has increased by 3.30 % compared with the third quarter of 2013. The main contribution to this increase gave the branches of the economy such as Trade, Hotels and Restaurants by 1.71 %, Other Services 1.09 percentage point, Construction by 0.81 %, Industry 0.37 percentage point and Agriculture, Hunting and Forestry to 0.24 percentage point, Post and Telecommunication increased by 0.15 percentage point. Negative contribute had the branch of Transport by -1.05 percentage point. (See Fig.1 p3).

The main branches of the economy for the third quarter 2014 compared with third quarter 2013 appeared as follows:

Agriculture activity in the third quarter of 2014 compared with the same quarter of 2013 increased by 1.19 %.

The industry group activity increased by 2.45 % in the third quarter of 2014 compared with the third quarter of 2013. In this group, Extracting Industry gave a positive impact which increased by 4.53 %, instead the Manufacturing Industry increased by 0.93 % influenced by sub branch Electricity which had a decrease by 30.15 %.

Construction activity in the third quarter of 2014 appeared to increase by 7.53 % compared with the respective quarter of 2013.

The group of Trade, Hotels and Restaurants in the third quarter of 2014 increased by 10.41 % compared with the same quarter of 2013. In this group, trade had an increase by 11.11 % while hotels and restaurants had an increase by 5.75 %.

Transport activity in the third quarter of 2014 had a decrease by 24.07 % compared with the respective quarter of 2013.

Post and telecommunication activity increased by 5.39 % in the current reported quarter compared with the third quarter of 2013.

#### For release 09/01/2015

Other Services in the third quarter of 2014 increased by 3.76 % compared with the same quarter of 2013. In this group, positive impact gave almost all sectors like: the public administration, health, other collective services, social, cultural services etc. While the negative performance appeared to education, financial sector activities and real estate, rent and business support activities (legal activities, architecture, engineering and financial consulting, commercial, etc).

As for changes to the preceding quarter, the indicator of Gross Value Added increased by 0.68 % compared with the second quarter of 2014.

Agricultural activity in the third quarter of 2014 compared with the previous quarter decreased by 0.96 %.

The industry group decreased by 2.13 % in the third quarter of 2014 compared with the second quarter of 2014.

Construction activity in the third quarter of 2014 increased by 7.52 % compared with the second quarter of 2014.

The Group of Trade, Hotels and Restaurants increased by 2.61 % in the third quarter of 2014 compared with the second quarter of 2014.

Transport activity in the third quarter of 2014 increased by 0.17 % compared with the previous quarter.

Post and telecommunication appeared to increase by 3.16 % in the third quarter of 2014 compared with the second quarter of 2014.

Other services in the third quarter of 2014 increased by 0.69 % compared with the second quarter of 2014.

Fig. 1 Contribution of the main branches of the economy to real growth rate GVA

(Q3\_2014/Q3\_2013)

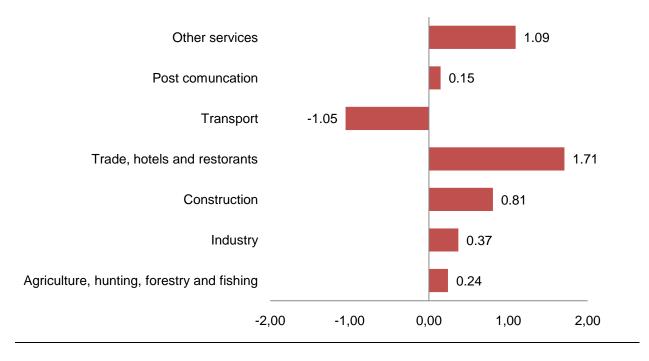
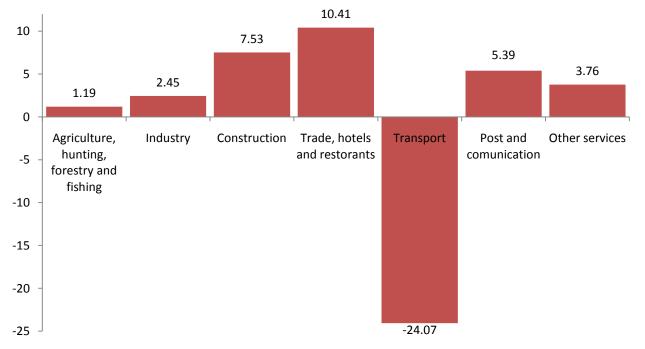


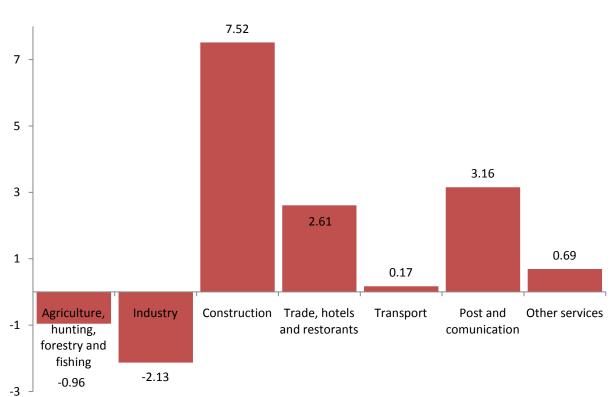
Fig.2 Changes to the same quarter of 2013 for the main branches of the economy

(Q3\_2014/Q3\_2013)



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Fig.3 Changes to the first quarter of 2014 for the main branches of the economy



# Methodology

**Note:** Based on revision policies of compilation of quarterly GVA, Quarterly National Accounts sector include in calculation of this quarter has taken the preliminary annual estimation of GVA for year 2013 calculated by Account National Accounts sector.

The current and constant measures of Quarterly GVA are consistent with the annual national accounts and are based on the same concepts and principles. The estimates in this publication are based on data available until December 2014. The main data sources that are used to estimate QGVA are in general administrative data and various infra-annual data collected by INSTAT's surveys. The series are subject to revisions in the future as additional or improved information becomes available.

The objective of the quarterly data in time series format is to give dynamic information about the economy. The publication includes estimates of quarterly GVA at constant prices (changes in volume of the quarterly GVA) where taxes and subsidies on products are not accounted for. The volume measures are expressed at average prices of the previous year and chain-linked with the reference year, (2010=100). The estimates of quarterly GVA are compiled in both original and seasonally adjusted formats. The method used to estimate quarterly GVA is considered an indirect method.

Is considered as an indirect method because the available data sources are used to estimate quarterly value added based on the selected quarterly indicators by application of mathematical methods and statistical techniques. Specifically, the applied indirect method is based on the assumption that the proportion between the value added and output is constant within the period of estimation. In some specific branches like Electricity, Public Administration, Education, Health and Financial Activities, is used the direct method which estimates the output and intermediate consumption separately, with subsequent calculation of value added as a difference.

#### Sequence of compilation

In the indirect method the chronological order may change, but the most used is as follows:

- i. Constructing the quarterly indicators at current and constant prices from different sources for the appropriate recent periods;
- ii. Development of time series for quarterly data at current and constant prices in order to ensure data comparability and consistency over time;
- iii. Benchmarking the non-seasonally adjusted series to the relevant annual series;

iv. Eliminating the seasonality from the aggregated quarterly time series.

It is worth mentioning that the sum of seasonally adjusted quarters is not necessarily equal to the annual GVA for any particular year. Under normal circumstances, there will be enough variation in seasonality and/or trading day effects to explain a gap between the two.

#### Volume measures

Quarterly National Accounts, to ensure better consistency with the Annual estimates, as well as complying with ESA 2010, the volume measure of quarterly time series are expressed in average prices of the previous year and chain-linked reference year (2010=100).

General procedure of volume measures calculation consists of two steps: First figures at current prices are converted to previous year's average prices using appropriate price indices. Figures at previous year's prices are then chain-linked, with the reference year (2010=100), in order to obtain comparable time series of volume measures over time. This approach was introduced for the first time in quarterly accounts during the publication of the first quarter 2014. In the past, different approach was applied, where current price data were converted to constant prices of the fixed base year (the base year was 2005).

Chain-linking of quarterly figures is performed using the Annual Overlap technique, i.e. figures at previous year's prices are scaled down to the average price level of the chosen reference year using annual deflators. This technique is used in the majority of member states of the European Union. Chain linking means constructing long run volume measures by cumulating movements in short term indices with different base periods. The chain-linking of quarterly GVA data with fixed reference period (2010=100) allow different periods to be compared in a consistent manner and provide measures of long-run changes. However, the users should be aware of the phenomena of (non- additivity problem) of chained data.

For example if quarterly time series of GVA at current and constant prices with average prices of the previous year are additive, where total GVA is the sum of the components, for chain linking series, with fixed reference period (2010=100) the total GVA will be non-additive.

Following international methodology, the real growth rate is estimated using quarterly chainlinked series, with the reference year 2010 (2010 = 100).

#### Benchmarking

The aim of benchmarking is to ensure the consistency between Quarterly and Annual National Accounts. It should be applied to both current and constant prices, where quarterly values are expressed at the same base year as the annual data. It has to be underlined that the benchmarking alters the

original figures, and consequently the volume growth of the aggregates, influencing in this way the chainlinked adjusted results.

Adjustment of quarterly GVA figures (from Q1 2008 to Q4 2013), according to the revised annual data for the period from 2008 to 2013, was carried out by using the XLPBM Excel programme. The XLPBM Excel programme has been developed by the IMF and provides a set of mathematical and statistical techniques which are used for temporal disaggregation of data series. During the process of adjustment, the discrepancy between estimated quarterly data and final annual data is minimized. The result is the achievement of consistency of quarterly and annual data, that is, the sum of quarterly data is equal to annual data in every year.

#### Seasonal adjustment

One of the major characteristics and issues of quarterly national accounts is seasonality. There are two methods for eliminating the seasonal effect from quarterly series.

#### Indirect method:

The level at which series are seasonally adjusted is important, since it has the potential to affect the quality of that seasonally adjusted series. The individual component series of the main economic variables can be seasonally adjusted and then summed to derive totals. This is called an indirect seasonal adjustment. The indirect approach has the advantage of retaining additive, but this applies only to the current price series. Although the indirect approach conceptually also provides additively for volume series.

#### Direct method:

Alternatively, the main economic variables can be seasonally adjusted at the total level, independently from the seasonal adjustment of their components. The adjustment of the total of an aggregate series is called a direct seasonal adjustment.

The direct approach often gives better results if the component series show similar seasonal patterns. At the most detailed level, the irregular factor may be large compared with the seasonal factor and therefore makes it difficult to perform proper seasonal adjustment.

In a small country such as Albania, irregular events can have strong impact on particular data. However, if the component series show the same seasonal pattern, aggregation often reduces the impact of the irregular factors in the component series. This is particularly relevant for Albania, where many economic series are affected by same seasonal fluctuations in the primary industries. INSTAT applied direct method for seasonal adjustment of quarterly time series.

The program used for seasonal adjustment of time series is JDemetra +, method TRAMO / SEATS, this program was developed by EUROSTAT.

#### **Revisions policy**

One of the most important moments of the quarterly series is revisions policies. These revisions are related with quarterly and annual data changes. Revisions to the previously published series may be made each quarter. The frequency and cause of these revisions are as follows:

#### Quarterly revisions

As additional data become available for the last quarter, they have their impact on the previous quarters because: data reported for the last quarters are supported by additional source data or improvements/corrections to data for previous nearest quarters were performed. It is necessary to mention that most of the data used for quarterly estimations are administrative data.

Including the last quarter data in the series and subsequent application of the seasonal adjustment will result in some changes to the previous quarters.

#### Annual revisions

Quarterly data are benchmarked to the annual one, and revisions to annual data will influence the quarterly series. Revisions to annual data are subject to arrival of new annual data sources or improvements of the existing ones. One year has three steps of estimation; flesh, semi final and final. Changes that happen during these steps have their direct effect on the quarterly series. The flash estimations of the current year are available 11 months after the end of the reported year, semi final are available with a time discordance of 17 months and the final version - within 29 months. Revisions to quarterly series are linked to the production cycle of annual estimates.

#### Methodological revisions

Revisions of quarterly series due to changes in methodology are to the extent possible coinciding with the annual cycle of revisions outlined above.

In addition, each of the above causes of revisions, and/or the incorporation of new series in the actual quarterly series, has the potential to alter seasonal factors and therefore may lead to a revision in the seasonally adjusted series.

#### Tab.1 Quarterly Gross Value Added, current prices

Non-Seasonally Adjusted	I										Million Lek
		Industry									
NACE Rev1.1	Agriculture, hunting and forestry	hunting	- Extracting	- Manufacturing	Construction	Total	Trade, Hotels and Restorants	Transport	Post and communication	Other Services	Gross Value Added at basic prices
	1	2=2a+2b	2a	2b	3	4=5+6+7+8	5	6	7	8	9=1+2+3+4
2013*	268,093	179,052	72,037	107,015	143,410	597,982	179,386	40,480	32,041	346,075	1,188,536
2013**											
Q1	64,737	44,897	17,119	27,779	27,893	137,637	37,837	8,897	7,392	83,511	275,164
Q2	89,364	48,170	18,239	29,932	39,316	145,163	43,271	10,591	7,271	84,030	322,013
Q3	62,031	41,899	17,751	24,148	30,698	151,448	47,115	12,515	7,977	83,842	286,077
Q4	51,962	44,085	18,928	25,156	45,504	163,733	51,163	8,476	9,402	94,692	305,283
2014**											
Q1	66,179	41,255	18,457	22,798	26,498	139,961	39,315	6,974	7,189	86,483	273,894
Q3	95,382	47,862	20,140	27,721	30,834	152,303	46,027	8,518	6,949	90,809	326,380
Q2	60,456	44,020	19,600	24,420	33,056	159,004	52,882	9,667	8,350	88,105	296,536

2013\* Preliminary 2014\*\* Flash

#### Tab.2. Quarterly Gross Value Added, chain-linked volume measures, reference 2010 year (2010=100)

NACE Rev1.1	Agriculture,		Industry					Services			
	hunting and forestry	hunting	I - Extracting	- Manufacturing 2b	Construction	Total 4	Trade, Hotels and Restorants 5	Transport 6	Post and communication 7	Other Services 8	Gross Value Added at basic prices
	1	2	2a		3						9
2013*	247,318	173,591	49,956	120,982	141,001	576,689	168,220	38,609	31,864	337,846	1,139,105
2013*											
Q1	57,183	38,760	9,722	29,379	27,524	132,836	35,633	8,493	7,288	81,436	256,516
Q2	81,635	46,567	12,533	33,888	38,637	140,113	40,425	10,071	7,168	82,392	306,945
Q3	57,839	42,923	13,287	28,373	30,258	145,926	44,301	11,918	7,865	81,743	277,199
Q4	50,660	45,340	14,414	29,343	44,583	157,814	47,861	8,127	9,543	92,275	298,445
2014**											
Q1	58,618	41,983	13,543	26,878	26,172	133,061	36,128	6,562	7,296	83,205	260,150
Q3	84,328	45,440	13,112	31,613	30,369	144,573	42,425	8,001	6,947	87,173	305,809
Q2	58,530	43,975	13,888	28,637	32,535	151,282	48,913	9,050	8,290	84,818	286,337

Tab.3 Quarterly Gross Value Added, chain-linked volume measures, reference 2010 year (2010=100), Real Growth Rates, comparison with corresponding quarter of previous year

Non-Seasonally Adjust	ed										(%)	
	Agriculture,	Agriculture					Services					
NACE Rev1.1	hunting and forestry	Total	- Extracting	- Manufacturing	Construction	Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	Gross Value Added at basic prices	
<b>2013</b> * 2013*	0.61	7.91	12.04	5.26	1.12	0.08	0.62	-8.05	-8.03	1.67	1.45	
Q1	-0.91	11.77	-0.15	19.36	-2.35	1.86	0.84	-2.43	4.40	2.66	2.14	
Q2	-0.38	15.71	15.63	16.18	18.59	-1.33	0.68	-2.98	-17.00	-0.52	3.38	
Q3	2.28	-3.50	2.81	-8.46	-12.13	-0.87	-3.04	-0.50	-16.73	2.04	-1.98	
Q4	2.10	9.34	30.00	-2.70	0.79	0.78	4.03	-25.63	-0.44	2.48	2.22	
2014**												
Q1	2.51	8.31	39.31	-8.51	-4.91	0.17	1.39	-22.73	0.11	2.17	1.42	
Q3	3.30	-2.42	4.62	-6.71	-21.40	3.18	4.95	-20.55	-3.08	5.80	-0.37	
Q2	1.19	2.45	4.53	0.93	7.53	3.67	10.41	-24.07	5.39	3.76	3.30	

#### Tab 4. Quarterly Gross Value Added, chain-linked volume measures, reference 2010 year (2010=100)

Seasonally Adju	usted											Million Lek
NACE Rev1.1		Agriculture,		Industry								
		hunting and forestry Total		otal - Extracting	- Manufacturing	Construction	Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	Gross Value Added at basic prices
		1	2	2a	2b	3	4	5	6	7	8	9
	2013*	247,211	173,591	49,975	120,982	140,843	577,030	168,194	38,982	31,788	337,770	1,139,248
2013*												
Q	Q1	60,932	41,396	10,860	29,379	35,429	145,020	42,157	10,345	8,168	83,454	283,579
Q	22	61,102	45,711	12,588	33,888	39,030	143,205	41,723	10,344	7,952	83,924	287,588
Q	23	62,170	42,584	12,622	28,373	30,916	143,657	40,697	10,517	7,796	84,755	280,453
Q	Q4	63,009	43,899	13,904	29,343	35,468	145,147	43,617	7,776	7,872	85,637	287,629
2014**												
Q	Q1	62,574	44,619	14,528	26,878	33,626	145,500	42,748	7,885	7,926	86,424	288,047
Q	23	63,576	44,584	13,251	31,613	30,854	147,598	43,831	7,975	8,024	87,457	288,440
Q	22	62,968	43,636	13,350	28,637	33,173	148,766	44,975	7,989	8,277	88,064	290,411

Tab. 5 Quarterly Gross Value Added, chain-linked volume measures, reference 2010 year (2010=100), Real Growth Rates, comparison with previous quarter

NACE Rev1.1		Agriculture,		Industry					Services			
		hunting and forestry	Total	- Extracting	- Manufacturing	Construction	Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	Gross Value Added at basic prices
	2013*	0.73	7.91	12.11	5.26	0.86	0.15	0.63	-7.40	-8.20	1.69	1.42
2013*												
	Q1	-2.11	3.43	1.48	-2.58	0.05	0.43	0.55	-0.05	-3.08	-0.28	0.43
	Q2	0.28	10.42	15.91	15.35	10.16	-1.25	-1.03	-0.01	-2.65	0.56	1.41
	Q3	1.75	-6.84	0.27	-16.27	-20.79	0.32	-2.46	1.66	-1.96	0.99	-2.48
	Q4	1.35	3.09	10.16	3.42	14.73	1.04	7.17	-26.06	0.98	1.04	2.56
2014**												
	Q1	-0.69	1.64	4.49	-8.40	-5.19	0.24	-1.99	1.40	0.69	0.92	0.15
	Q3	1.60	-0.08	-8.79	17.62	-8.24	1.44	2.54	1.14	1.23	1.20	0.14
	Q2	-0.96	-2.13	0.75	-9.41	7.52	0.79	2.61	0.17	3.16	0.69	0.68