

# Quarterly Economic Growth

## Second Quarter, 2014

**Tirana, October 6, 2014:** According to indicator of Gross Value Added (GVA) the economic activity in the second quarter of 2014 in volume terms has decreased by 0.61 % compared with the second quarter of 2013. Contribution to this decrease gave the main branches of the economy, such as *Construction* -2.79 percentage point, *Transport* -0.73 percentage point, and *Industry* -0.20 percentage points. In the Industry group the decline was influenced by sub branch of Production and distribution of Electricity and Gas -0.96 percentage point. While *other services* contributed positively to +1.23 percentage point and *Agriculture, Hunting and Forestry* to +0.95 percentages point. The group of *Trade, Hotels and Restaurants* had a positive contribution +0.95 percentage point. (See Fig.1 p3).

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

Agriculture activity in the second quarter of 2014 compared with the same quarter of 2013 increased by 3.18 %.

The industry group activity decreased by 1.29 % in the second quarter of 2014 compared with the second quarter of 2013, although *Extracting Industry* increased by 7.56 %, the negative impact was mostly influenced by the *Manufacturing Industry*, which decreased 6.62 % lead by sub branch of Electricity which had a decrease by 29.20 %.

Construction activity decreased by 22.39 % in the second quarter of 2014 compared with the respective quarter of 2013.

The group of Trade, Hotels and Restaurants increased by 7.09 % in the second quarter of 2014 compared with the same quarter of 2013. In this group, Trade increased by 8.12 %, while Hotels and Restaurants increased about 0.69 %.

Transport activity in the second quarter of 2014 continues to decrease by 23.05 % compared with the respective quarter of 2013, influenced by air transport.

Post and telecommunication activity decreased by 1.02 % in the current reported quarter compared with the second quarter of 2013.

Other Services in the second quarter of 2014 increased by 4.55 % compared with second quarter of 2013. In this group, positive impact gave almost all sectors like: the public administration, education and health, financial sector activities and other collective services, social, cultural services, etc. While the negative performance appeared to 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 0.38 % compared with the first quarter of 2014.**

Agricultural activity in the second quarter of 2014 compared with the previous quarter increased by 1.59 %.

The industry group increased by 1.41 % in the second quarter of 2014 compared with the first quarter of 2014.

Construction activity in the second quarter of 2014 decreased by 8.54 % compared with the first quarter of 2014.

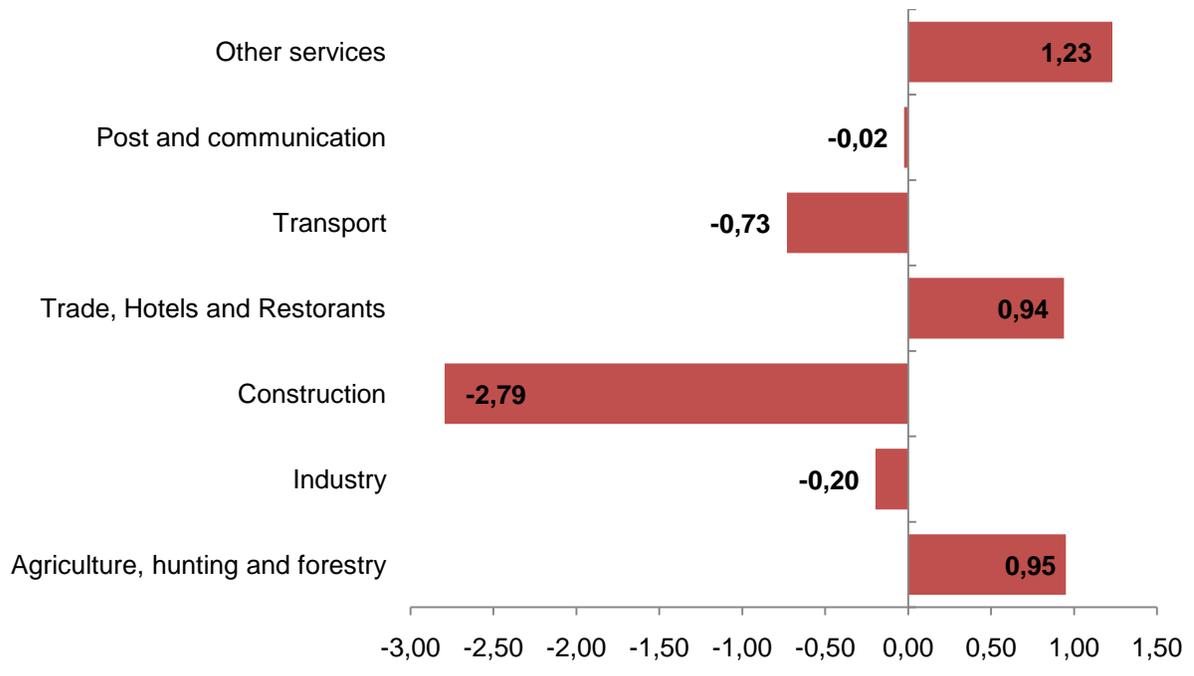
The Group of Trade, Hotels and Restaurants increased by 2.58 % in the second quarter of 2014 compared with the first quarter of 2014.

Transport activity in the second quarter of 2014 increased by 2.03 % compared with the previous quarter.

Post and telecommunication appeared to increase by 0.72 % in the second quarter of 2014 compared with the first quarter of 2014.

Other services in the second quarter of 2014 increased by 0.65 % compared with the first quarter of 2014.

**Fig. 1 Contribution of the main branches of the economy to real growth rate GVA (Q2\_2014 / Q2\_2013)**



**Fig. 2 Changes to the same quarter of 2013 for the main branches of the economy (Q2\_2014/ Q2\_2013)**

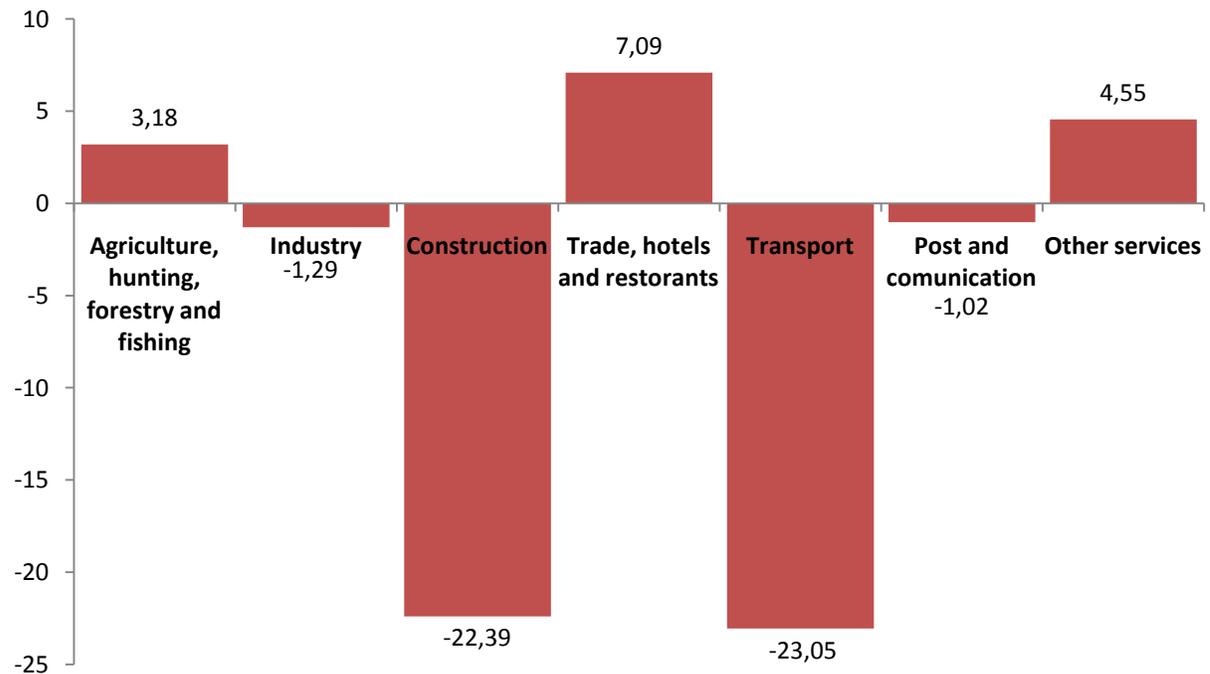
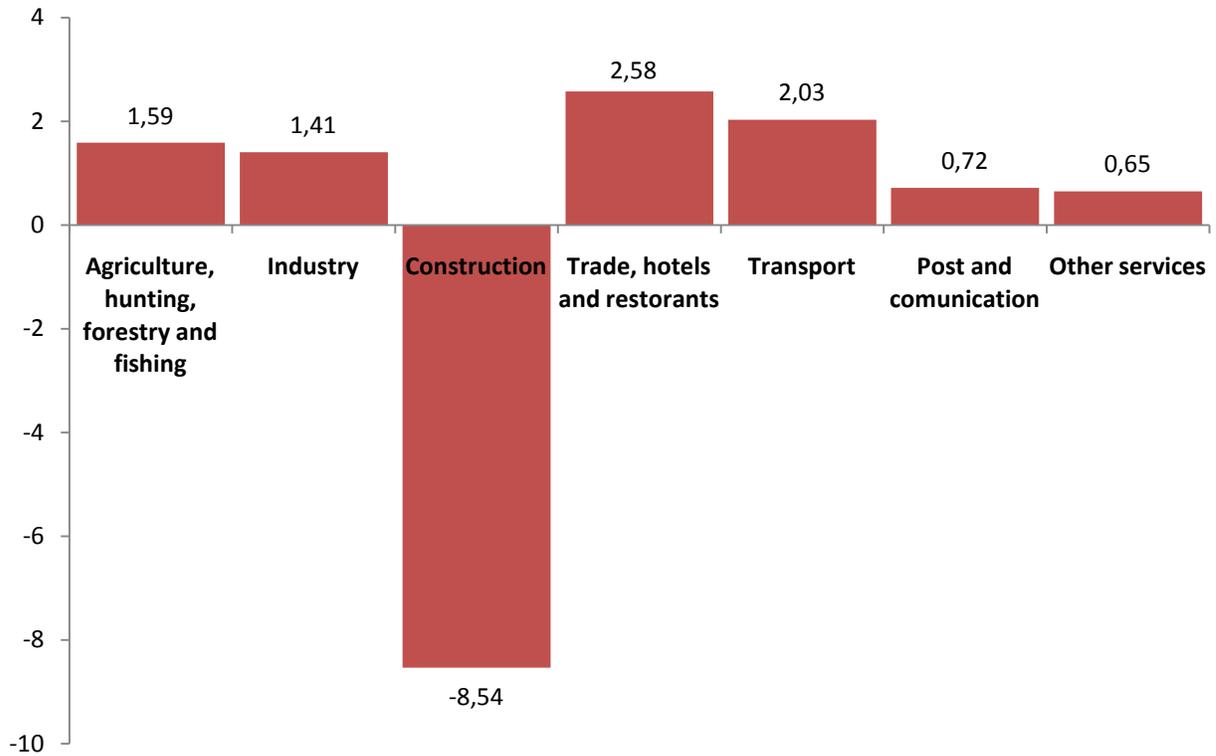


Fig.2 Changes to the first quarter of 2014 for the main branches of the economy

(Q2\_2014/ Q1\_2014)



# Methodology

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 September 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 statistics 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**

The main phases for the compilation process of QGVA using the indirect method are given below in a chronological order:

- i. Constructing the indicators 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, changed the methodology of the volume measures which 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) with subsequent conversion into previous year prices with the fixed base year.

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 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 chain-linked 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 chain-linked adjusted results.

Adjustment of quarterly GDP figures (from Q1 2008 to Q4 2012), according to the revised annual data for the period from 2008 to 2012, 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; flash, 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

Million Lek

NACE Rev1.1	Agriculture, hunting and forestry	Industry			Construction	Services					Gross Value Added at basic prices
		Total	- Extracting	- Manufacturing		Total	Trade, Hotels and Restorants	Transport	Post and communication	Other Services	
		1	2=2a+2b	2a		2b	3	4=5+6+7+8	5	6	
2013**	260.901	180.307	72.707	107.600	145.280	592.656	175.456	38.636	34.271	344.293	1.179.144
2013**											
Q1	64.603	45.603	17.232	28.371	28.113	136.941	37.296	8.631	7.767	83.247	275.260
Q2	84.917	48.975	18.397	30.578	39.782	143.910	42.390	10.134	7.745	83.641	317.584
Q3	59.587	41.658	17.920	23.738	31.147	149.488	45.935	11.866	8.592	83.095	281.879
Q4	51.794	44.071	19.159	24.913	46.238	162.317	49.834	8.005	10.167	94.310	304.421
2014**											
Q1	63.870	41.964	19.242	22.722	26.932	138.883	38.663	6.591	7.802	85.827	271.648
Q2	92.358	49.383	21.558	27.825	30.875	150.458	45.225	7.903	7.543	89.787	323.074

2012\* Semi final  
2013/2014\*\* Flash

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

Non-Seasonally Adjusted											Million Lek
NACE Rev1.1	Agriculture, hunting and forestry	Industry			Construction	Services					Gross Value Added at basic prices
		Total	- Extracting	- Manufacturing		Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	
		1	2	2a		2b	3	4	5	6	
2013**	247.616	174.960	50.327	121.975	142.607	573.068	166.692	36.812	34.134	335.386	1.138.712
2013**											
Q1	57.207	38.949	9.751	29.552	27.714	132.361	35.409	8.233	7.664	81.086	256.439
Q2	82.141	47.233	12.614	34.534	39.038	139.245	40.078	9.626	7.645	81.862	307.639
Q3	57.812	43.104	13.375	28.438	30.644	144.482	43.829	11.287	8.486	80.812	276.279
Q4	50.455	45.674	14.586	29.451	45.211	156.980	47.376	7.667	10.339	91.626	298.354
2014**											
Q1	58.978	42.447	13.988	26.680	26.502	132.709	36.589	6.187	7.945	82.082	260.867
Q2	84.756	46.622	13.567	32.247	30.298	143.503	42.920	7.407	7.567	85.587	305.767

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 Adjusted											(%)
NACE Rev1.1	Agriculture, hunting and forestry	Industry			Construction	Services					Gross Value Added at basic prices
		Total	- Extracting	- Manufacturing		Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	
		2013**	0,73	8,76		12,87	6,13	2,28	-0,55	-0,30	
2013**											
Q1	-1,11	12,37	0,20	20,13	-1,50	1,42	0,19	-6,07	10,59	2,11	2,04
Q2	0,43	17,43	16,31	18,52	20,01	-2,06	-0,33	-7,88	-10,84	-1,27	3,64
Q3	2,24	-2,99	3,47	-8,09	-10,99	-1,82	-4,07	-5,82	-10,08	0,93	-2,27
Q4	1,63	9,92	31,60	-2,66	1,96	0,38	3,12	-28,97	6,54	1,90	2,18
2014**											
Q1	3,10	8,98	43,45	-9,72	-4,37	0,26	3,33	-24,85	3,66	1,23	1,73
Q2	3,18	-1,29	7,56	-6,62	-22,39	3,06	7,09	-23,05	-1,02	4,55	-0,61

2012\* Semi final  
2013/2014\*\* Flash

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

Seasonally Adjusted

Million Lek

NACE Rev1.1	Agriculture, hunting and forestry	Industry			Construction	Services					Gross Value Added at basic prices
		Total	- Extracting	- Manufacturing		Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	
		1	2	2a		2b	3	4	5	6	
2013**	247.551	174.960	50.338	121.975	142.334	573.568	166.704	37.123	33.986	335.542	1.139.462
2013**											
Q1	60.896	41.661	10.905	29.552	35.495	144.309	41.720	10.027	8.566	83.063	283.405
Q2	61.445	46.404	12.660	34.534	39.429	142.331	41.371	9.884	8.455	83.611	286.963
Q3	62.184	42.564	12.513	28.438	31.905	142.676	40.741	9.854	8.445	84.009	282.585
Q4	63.028	44.331	14.261	29.451	35.506	144.251	42.872	7.357	8.520	84.859	286.509
2014**											
Q1	62.843	45.159	15.054	26.680	33.789	144.643	43.108	7.436	8.521	85.441	286.840
Q2	63.841	45.794	13.688	32.247	30.905	146.422	44.219	7.587	8.583	85.995	287.935

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

Seasonally Adjusted

(%)

NACE Rev1.1	Agriculture, hunting and forestry	Industry			Construction	Services					Gross Value Added at basic prices
		Total	- Extracting	- Manufacturing		Total	Trade, Hotels and Restaurants	Transport	Post and communication	Other Services	
		1	2	2a		2b	3	4	5	6	
2013**	0,85	8,76	12,92	6,13	1,89	-0,45	-0,28	-11,81	-1,95	0,98	1,36
2013**											
Q1	-2,42	3,61	0,84	-2,33	0,79	0,16	0,13	-2,57	-0,49	-0,59	0,50
Q2	0,90	11,39	16,09	16,86	11,08	-1,37	-0,84	-1,43	-1,29	0,66	1,26
Q3	1,20	-8,28	-1,16	-17,65	-19,08	0,24	-1,52	-0,31	-0,12	0,47	-1,53
Q4	1,36	4,15	13,97	3,56	11,29	1,10	5,23	-25,34	0,88	1,01	1,39
2014**											
Q1	-0,29	1,87	5,56	-9,41	-4,84	0,27	0,55	1,07	0,02	0,69	0,12
Q2	1,59	1,41	-9,07	20,87	-8,54	1,23	2,58	2,03	0,72	0,65	0,38