# Quarterly Gross Domestic Product

## Publication of the second quarter of 2013

October, 2013

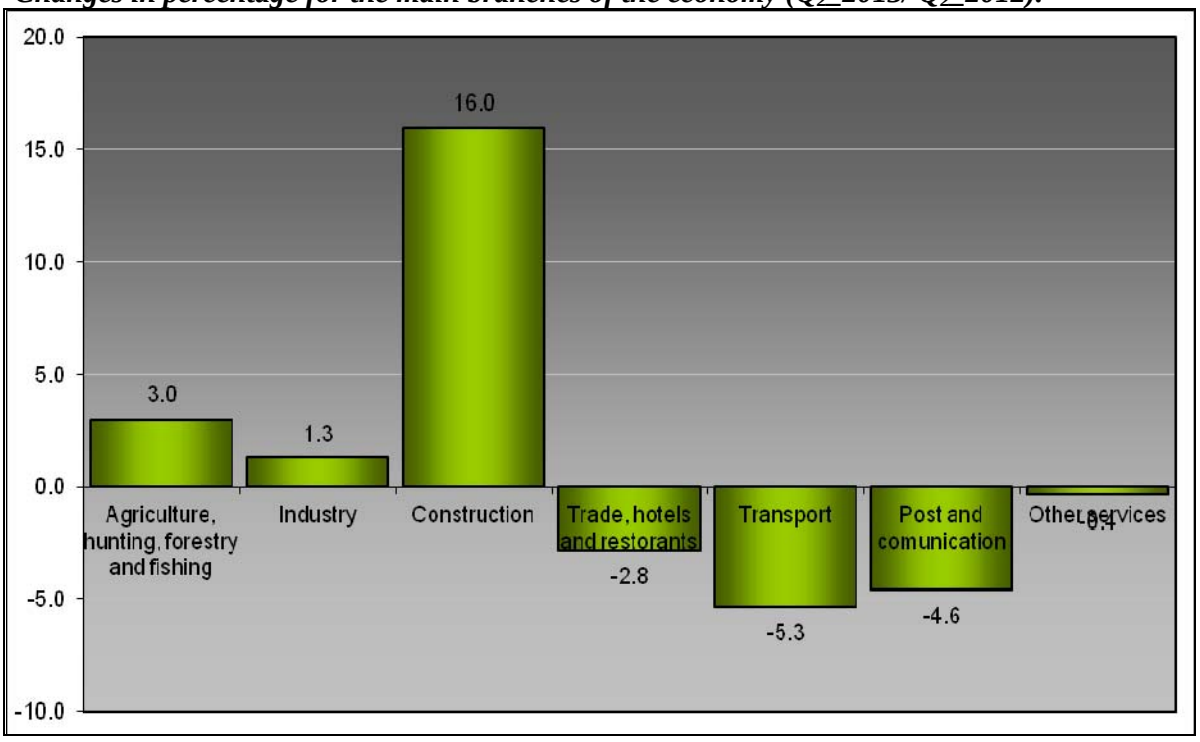
# Highlights

*Economic activity in second quarter of 2013 in volume terms increased by 1.1 percent compared with the second quarter of 2012, while it is increased by 1.0 percent compared with the first quarter of 2013.*

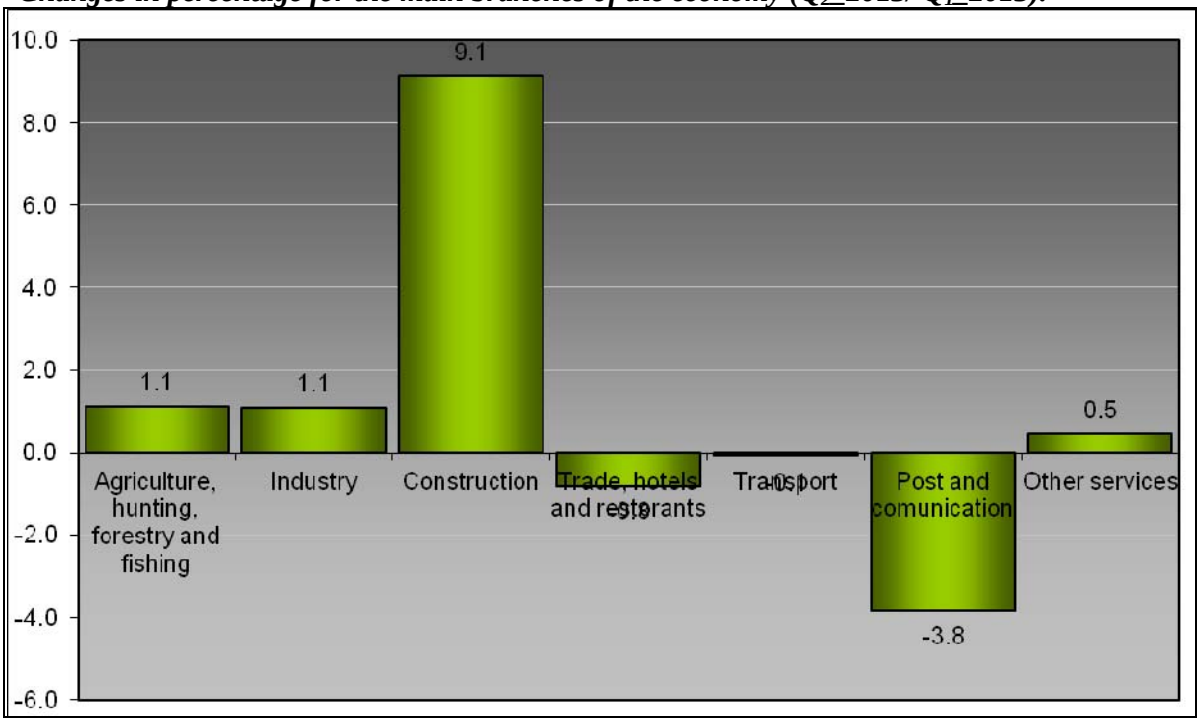
*In this quarter the groups that had the highest growth rates were Construction and Industry by 16 percent and 1.3 percent respectively compared with the second quarter of 2012. A negative growth rate during this quarter compared with the second quarter of 2012 pertains to Transport, Post and Communication, Trade, Hotels and Restaurants and Other Services with 5.3 percent, 4.6 percent, 2.8 percent and 0.4 percent respectively.*

*Comparing current reported quarter with the previous one growth had Construction 9.1 percent, Industry with 1.1 percent and Other Services with 0.5 percent. Post and Communication, Trade, Hotels and Restaurant decreased by 3.8 percent and 0.8 percent and 0.1 percent respectively. Agriculture group on this quarter had a growth by 3.0 percent, compared with the second quarter of 2012 and by 1.1 percent compared with previous quarter.*

***Changes in percentage for the main branches of the economy ($Q_2$_2013/ $Q_2$_2012).***



***Changes in percentage for the main branches of the economy ($Q_2$_2013/ $Q_1$_2013).***




## Commentary

The objective of quarterly data in a time series format is to give dynamic information of economy. The publication includes estimates of quarterly volume measure of GDP where taxes and subsidies on products are not accounted for. The volume measure is expressed in the average prices of the year 2005. The estimates of quarterly GDP are compiled in both original and seasonally adjusted formats. The method used to estimate quarterly GDP is considered an indirect method. The current and constant measures of Quarterly GDP (QGDP) are consistent with the annual national accounts statistics. The estimates are based on data available at September 2013. The main data sources that are used to estimate QGDP 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.

## Quarterly GDP by industries

**Agriculture**
Agriculture activity in the second quarter of 2013 compared with the same quarter of 2012 was increased by 3.0 percent and by 1.1 percent compared with the previous quarter.

**Primary Industries**
The industry group activity was increased by 1.3 percent in the second quarter of 2013 compared with the second quarter of 2012. Meanwhile compared with the first quarter of 2013, industry increased by 1.1 percent.

Industry:
It is necessary to specify that in this group the estimation of the electricity is based on application of direct method. In this industry value added is produced as a difference between output and intermediate consumption that are estimated independently.

**Construction**
Construction activity increased by 16 percent in the second quarter of 2013 compare with the respective quarter of 2012 and increased by 9.1 percent compared with the previous quarter.

**Trade, Hotels and Restaurants**
This group decreased by 2.8 percent in the current reported quarter compared with the same quarter of 2012 and compared with the first quarter of 2013 this activities decreased by 0.8 percent.

**Transport**
Transport activity in the second quarter of 2013 decreased by 5.3 percent compared with the respective quarter of 2012 and decreased by 0.1 percent compared with the previous quarter.

**Post and telecommunication**
This activity decreased by 4.6 percent in the current reported quarter compared with the second quarter of 2012 and decreased by 3.8 percent compared with the first quarter of 2013.

**Other services**
Service industries in the second quarter of 2013 decreased by 0.4 percent compared with second quarter of 2012 and increased by 0.5 percent compared with the previous quarter.

## Technical notes

**Source data for the first quarter of 2013**
Statistics in the attached tables provide the first available information of GDP for the second quarter of 2013, in constant prices and seasonally adjusted. Statistics for the recent period are based on information available in September 2013. Since some of the available sources are of lesser reliability than those used for the annual national accounts, quarterly estimates are subject to revisions as additional or improved data sources become available.

The QGDP estimates are prepared using a so called indirect method. It is considered an indirect method because the quarterly value added is produced based on 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 values added and output is constant within the period of estimation. Alternatively, direct method assumes that estimation of output and intermediate consummation are

performed independently from which value added is compiled by aggregating source data and applying national accounts adjustments to the raw data from various sources.

**Sequence of compilation**

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

a) Formation of source data indicators from different sources for the appropriate recent year;
b) Development of time series for quarterly data in current and constant prices in order to ensure data comparability and consistency over time;
c) Benchmark the non-seasonally adjusted series to the relevant annual series;
d) Eliminate the seasonality from aggregated quarterly time series;
e) Ensure comparability of seasonal series via chain linking.

It is worth mentioning that the sum of seasonally adjusted quarters is not necessarily equal to the annual total 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.

**Chain-volume series expressed in 2005 prices**

The series in this release are chain-linked and expressed in the average prices of the 2005 year. They are best described as annually reweighed chained Laspeyres volume indexes.

Series are expressed in both value and as Index numbers, since this has the advantage of showing the relative size of each component.

This procedure can be used at different levels of aggregation, but one should keep in mind that the chaining destroys additivity even when additive indices such as Laspeyres volume indices are linked. Notably the value of the total volume aggregate that comes as a result of using the Laspeyres indexes is not equal to the amount that comes as a result of summing up the constituents.

**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 price data, where the constant price data are expressed in prices of 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.

**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 quarter series.

*Indirect method*

The level at which a series is 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 additivity, but this applies only to the current price series. Although the indirect approach conceptually also provides additivity for volume series, additively is lost by chain-linking.

*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 a proper seasonal adjustment. In a small country such as Albania, irregular events can have a 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 applies the direct seasonal adjustment method.

## Revisions policy

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

1. **Quarterly revisions:**

As additional data becoming available for the last quarter, they have their impact on the previous quarters because:

- Data reported for the last quarter are accompanied with additional source data or improvements/corrections to data for previous nearest quarters. It is necessary to mention that most of the data used for quarterly estimations are administrative one.

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

2. **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.

3. **Methodological revisions:**

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

In addition, each of the above causes for revision, and/or the addition of a 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.

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## Next release

Gross Domestic Product: Third quarter of 2013 will be released on 30 December 2013.