

# Short Term Statistics

## Producers of Goods - Fourth Quarter 2023

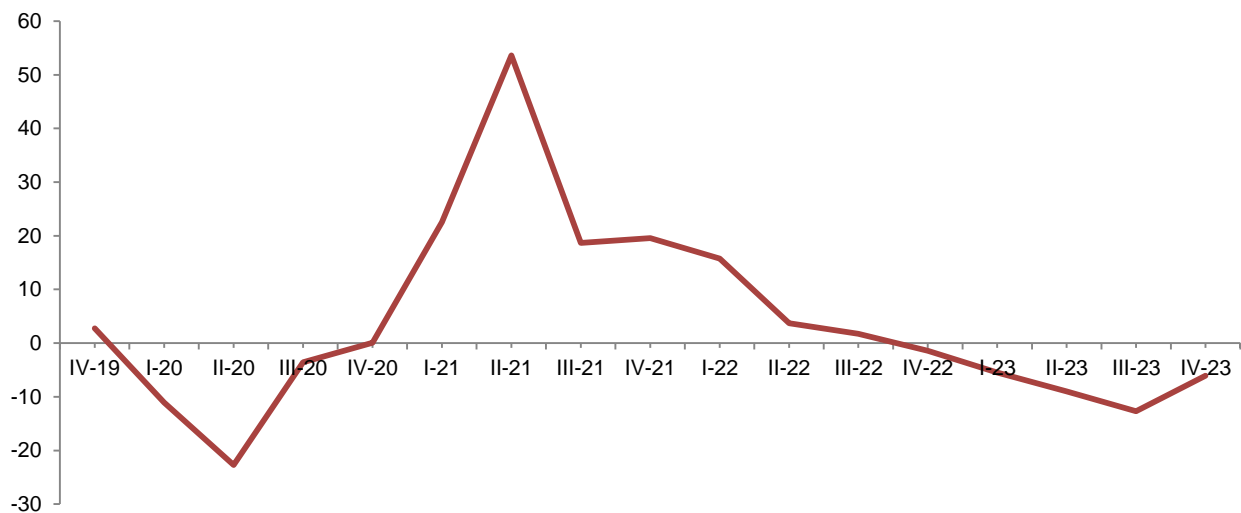
**Tirana, March 15:** Producers of goods quarterly indicators, include the economic activities: Industry (Mining and quarrying and Manufacturing); Electricity, Gas, Steam; Water supply; Sewerage, Waste management and Remediation activities and Construction, in the fourth quarter 2023, are presented as below:

### Industry:

Quarterly indicators in Industry activity in the fourth quarter 2023 are presented as below:

- Turnover volume index decreased by 6.1 % compared with the fourth quarter 2022;
- Production volume index decreased by 5.8 % compared with the fourth quarter 2022;
- The number of employees' index decreased by 1.3 % compared with the fourth quarter 2022;
- Wages index increased by 8.2 % compared with the fourth quarter 2022.

**Fig. 1 Annual changes of Turnover volume index, Industry (%)**

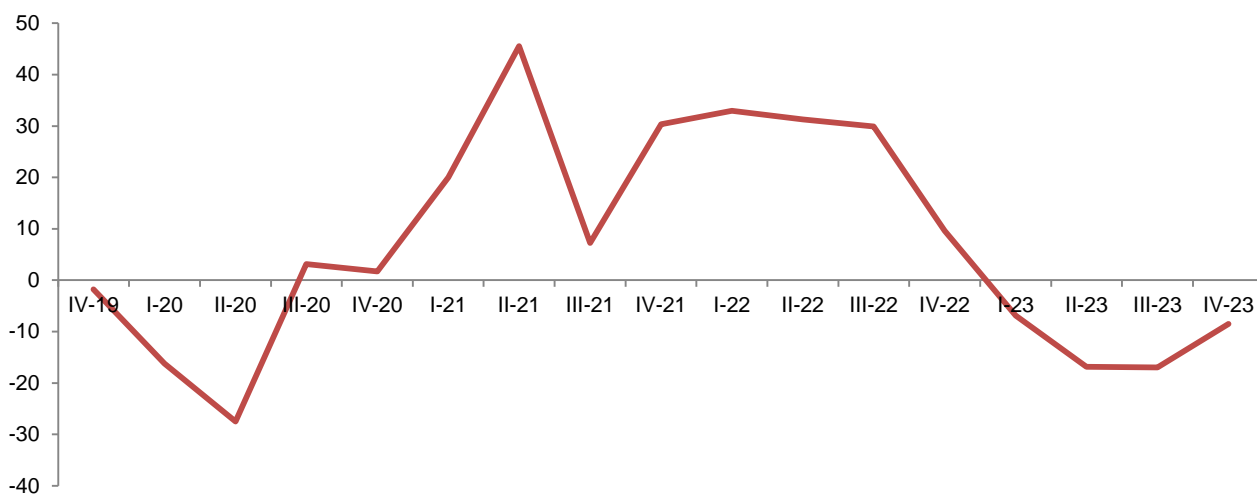


### Water supply; Sewerage, Waste management and Remediation activities :

Quarterly indicators in Water supply; Sewerage, Waste management and Remediation activities activity, in the fourth quarter 2023 are presented as below:

- Turnover volume index decreased by 8.5 % compared with the fourth quarter 2022;
- Production volume index decreased by 2.0 % compared with the fourth quarter 2022;
- The number of employees' index increased by 5.3 % compared with the fourth quarter 2022;
- Wages index increased by 19.3 % compared with the fourth quarter 2022.

**Fig. 2 Annual changes in Turnover volume index, Water supply; Sewerage, Waste management and Remediation activities (%)**

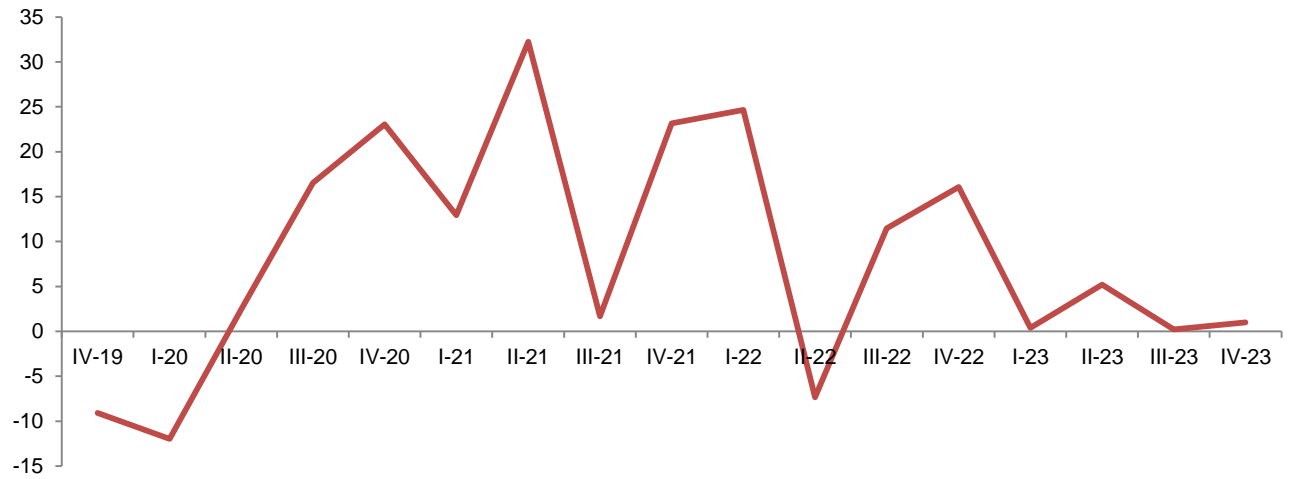


### Construction:

Quarterly indicators in Construction activity, in the fourth quarter 2023 are presented as below:

- Turnover volume index increased by 1.0 % compared with the fourth quarter 2022;
- Production volume index increased by 1.3 % compared with the fourth quarter 2022;
- The number of employees' index increased by 3.7 % compared with the fourth quarter 2022;
- Wages index increased by 14.1 % compared with the fourth quarter 2022.

Fig. 3 Annual changes in Turnover volume index, Construction (%)



**Tab.1 Turnover volume index, Producers of Goods**

| NACE Rev.2 | Economic activity | Seasonally unadjusted   |                      | Seasonally adjusted     |                       |      |
|------------|-------------------|---|----------------------|-------------------------|-----------------------|------|
|            |                   | Q.IV 2023<br>(2015=100)   | IV.23 / IV.22<br>(%) | Q.IV 2023<br>(2015=100) | IV.23 / III.23<br>(%) |      |
| B-C        | 05-33             | <b>Industry</b>   | 126.4                | -6.1                    | 120.0                 | 5.1  |
| B          | 05-09             | <i>Mining and quarrying</i>   | 76.8                 | 10.2                    | 77.7                  | 20.9 |
| C          | 10-33             | <i>Manufacturing</i>  | 150.3                | -8.2                    | 142.8                 | 0.7  |
| D          | 35                | Electricity, Gas, Steam   | ...                  | ...                     | ...                   | ...  |
| E          | 36-39             | Water supply; Sewerage; Waste management and Remediation activities | 131.7                | -8.5                    | 127.6                 | 6.2  |
| F          | 41-43             | <b>Construction</b>   | 251.4                | 1.0                     | 188.2                 | 5.6  |
|            |                   | <b>Main Industrial Grouping</b>                                     |                      |                         |                       |      |
|            |                   | <i>Intermediate goods</i>   | 161.2                | -1.5                    | 152.1                 | 7.1  |
|            |                   | <i>Energy</i>   | ...                  | ...                     | ...                   | ...  |
|            |                   | <i>Capital goods</i>  | 178.2                | -12.6                   | 159.0                 | 5.3  |
|            |                   | <i>Durable consumer goods</i>                                       | 150.5                | 8.6                     | 131.0                 | 2.9  |
|            |                   | <i>Non-durable consumer goods</i>                                   | 119.7                | -8.4                    | 115.5                 | -0.2 |

... In the process of revising the methodology for activity Electricity, Gas, Steam

**Tab.2 Production volume index, Producers of Goods**

| NACE Rev.2 | Economic activity | Seasonally unadjusted   |                      | Seasonally adjusted     |                       |      |
|------------|-------------------|---|----------------------|-------------------------|-----------------------|------|
|            |                   | Q.IV 2023<br>(2015=100)   | IV.23 / IV.22<br>(%) | Q.IV 2023<br>(2015=100) | IV.23 / III.23<br>(%) |      |
| B-C        | 05-33             | <b>Industry</b>   | 115.0                | -5.8                    | 107.7                 | 4.9  |
| B          | 05-09             | <i>Mining and quarrying</i>   | 81.1                 | 7.5                     | 77.1                  | 20.8 |
| C          | 10-33             | <i>Manufacturing</i>  | 138.9                | -7.7                    | 129.7                 | 0.3  |
| D          | 35                | Electricity, Gas, Steam   | ...                  | ...                     | ...                   | ...  |
| E          | 36-39             | Water supply; Sewerage; Waste management and Remediation activities | 136.3                | -2.0                    | 134.4                 | 0.9  |
| F          | 41-43             | <b>Construction</b>   | 267.9                | 1.3                     | 201.4                 | 5.0  |
|            |                   | <b>Main Industrial Grouping</b>                                     |                      |                         |                       |      |
|            |                   | <i>Intermediate goods</i>   | 149.8                | 4.2                     | 137.9                 | 13.0 |
|            |                   | <i>Energy</i>   | ...                  | ...                     | ...                   | ...  |
|            |                   | <i>Capital goods</i>  | 211.1                | -10.6                   | 189.2                 | 7.8  |
|            |                   | <i>Durable consumer goods</i>                                       | 156.3                | 8.7                     | 135.1                 | 4.2  |
|            |                   | <i>Non-durable consumer goods</i>                                   | 118.1                | -8.5                    | 113.8                 | 1.4  |

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**Tab.3 Number of employees and wages index, Producers of Goods**

| NACE Rev.2 |       | Economic activity   | Number of employees      |                      | Wages                   |                      |
|------------|-------|---|--------------------------|----------------------|-------------------------|----------------------|
|            |       |   | Q. IV 2023<br>(2015=100) | IV.23 / IV.22<br>(%) | Q.IV 2023<br>(2015=100) | IV.23 / IV.22<br>(%) |
| B-C        | 05-33 | <b>Industry</b>   | 103.2                    | -1.3                 | 175.2                   | 8.2                  |
| B          | 05-09 | <i>Mining and quarrying</i>   | 76.8                     | 0.3                  | 131.8                   | 18.8                 |
| C          | 10-33 | <i>Manufacturing</i>  | 107.2                    | -1.5                 | 190.8                   | 6.1                  |
| D          | 35    | Electricity, Gas, Steam   | ...                      | ...                  | ...                     | ...                  |
| E          | 36-39 | Water supply; Sewerage; Waste management and Remediation activities | 122.3                    | 5.3                  | 197.0                   | 19.3                 |
| F          | 41-43 | <b>Construction</b>   | 129.0                    | 3.7                  | 192.4                   | 14.1                 |

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# Methodology

## Information

In the wake of its efforts to standardizing and approaching the short term statistics to the standards of EU statistics, the publication of Short Term Statistics - Producers of Goods has passed through some methodological changes. such as:

- Indices on Short term statistics - Producers of Goods from first quarter 2019 will be calculated with base year 2015=100.
- Weights are calculated based on Structural Business Survey in 2020. realized from INSTAT.

## Information on the observation

**Purpose** – The short term statistics shows the trend of economic development of a country in quarterly periods. by which the police makers can develop a short term plan for the further development of the country. The development of the main indicators such as; industrial production, turnover, number of employees and wages in time series are described by this publication.

**Coverage-** based on main economic activity the main activities covered in the STS survey for producer goods is as following:

- Industry - composed by Mining and quarrying and Manufacturing industry (05-33)
- Electricity. Gas. and Steam (35)
- Water supply; Sewerage; Waste management and Remediation activities (36 - 39)
- Construction (41. 42. 43)

**Model** - The enterprises are selected from the Statistical Register of Enterprises. The enterprises with 1-9 employees are surveyed by sample survey. whereas the enterprises with 10 and more employees are surveyed exhaustively.

**Data collection** - Administrative data sources and data collected directly from enterprises with face to face interview method is used this quarter.

**Indicators** – The indicators are given in Index form the quarterly changes are given in percentage whereas the annual changes are given in percentage with reference to the base year actually 2015=100. The data do not present absolute values.

**Indexes** – The indexes show the changes in time of a given variable or of a group of variables. The Index Volume is calculated through the Laspeyres Formula. The indices are deflated with the proper price index by activities to avoid the prices impact. Such as the Industry indicator are deflated with Producer Price Index; Construction activity with Construction Cost Index; Hotel activity with Consumer Price Index. Transport with implicit price index calculated. etc.

**The annual change in percentage** - it measures in percentage the change of economic indicators of the actual quarter compared with the same quarter of the previous year.

**The quarterly change in percentage** – it measures in percentage the change of economic indicators of the actual quarter against compared with the previous quarter of the same year.

**Revision** – Indexes may be revised due to several reasons: additional information. the methodological changes or re-evaluation of the used coefficients etc.

#### Definition of the main indicators

**Turnover** is the total amount realized by enterprises during the month from the selling of goods. selling of own products and services excluded VAT.

**Number of persons** working includes all persons who actually work in the observed unit. There are included; owners and co-owners and family members that helps in the activity and employees in the end of the quarter.

**Employment index** – shows the evolution of employment in observation unit.

**Wages and salaries** – are defined as the total remunerations in cash or in kind payable to all persons counted on the payrolls. in return for work done during the accounting period.

**Index of wages and salaries** – the gross wages and salaries index approximates the development of the wages and salaries bill.

**Main industrial grouping** are a regroup of: Mining and quarrying. Manufacturing and Electricity activities according to NACE Rev.2 as follows:

| Total industry         | NACE Rev.2  |
|------------------------|---|
| Intermediate goods     | <ul style="list-style-type: none"> <li>• 07-09 Mining of metal ores; Other mining and quarrying; Mining support service activities</li> <li>• 13000 Manufacturing of textiles</li> <li>• 16000 Manufacture of wood and of products of wood and cork. except furniture; manufacture of articles of straw and plaiting materials</li> <li>• 17000 Manufacture of paper and paper products</li> <li>• 20-21 Manufacturing of chemical and pharmaceutical products</li> <li>• 22000 Manufacture of rubber and plastics products</li> <li>• 23000 Manufacture of other non-metallic mineral products</li> <li>• 24000 Manufacture of basic metals</li> <li>• 255XX Forging. pressing. stamping and roll forming of metal; powder</li> <li>• 27000 Manufacturing of electrical equipment</li> </ul> |
| Energy                 | <ul style="list-style-type: none"> <li>• 05-06 Mining of coal and lignite; Extraction of crude petroleum and natural gas</li> <li>• 19000 Manufacture of coke and refined petroleum products</li> <li>• 35000 Electricity. gas. steam and air conditioning supply</li> </ul>  |
| Durable consumer goods | <ul style="list-style-type: none"> <li>• 264XX Manufacture of consumer electronics</li> <li>• 31000 Manufacture of furniture</li> <li>• 32XXX Other industries n.e.c</li> </ul>   |

|                            |  |
|----------------------------|--|
| Non-durable consumer goods | <ul style="list-style-type: none"><li>• 10000 Manufacture of food products</li><li>• 11-12 Manufacture of beverages; Manufacture of tobacco products</li><li>• 14000 Manufacture of wearing apparel</li><li>• 15000 Manufacture of leather and related products</li><li>• 18000 Printing and reproduction of recorded media</li><li>• 32YYY Other industries n.e.c</li></ul> |
|----------------------------|--|

### Seasonal adjustment

Seasonal adjustment of quarterly time series of producer of materials goods is done by using JDemetra+ 2.2 version software. The chosen model for the decomposition of time series is X-12 ARIMA. under specification X-13. the span of time series is from First Quarter 2006 to Fourth Quarter 2023. X-12 ARIMA model is totally based in moving average. In all-time series is applied the multiplicative decomposition and the direct approach. In multiplicative method there is a relationship between trend components. seasonal component and irregularity component. Irregularity component may include sampling errors and unpredictable events. During the process of seasonal adjustment are treated even the special case occurred during the time series span. identified by software as outlier.