



Domain: Quarterly Gross domestic product - provisional (2) estimates

AS COMPARED TO Q1 2023, GROSS DOMESTIC PRODUCTS IN Q2 2023 WAS, IN REAL TERMS, BY 1.7%¹ HIGHER.

- The Gross Domestic Product recorded in the second quarter of 2023, as against the same period of the previous year, an increase of 1.0% for the unadjusted series and increase by 2.6% for the seasonally adjusted series.
- In the first semester of 2023, the Gross Domestic product increased by 1.7%, as compared with the first semester of 2022, for the unadjusted series and by 1.9% for the seasonally adjusted series.

In accordance with Eurostat requirements and European regulations in the field of national accounts, in order to ensure comparability between Member States' data and for the alignment of annual and quarterly national accounts data, NIS proceeded to change the reference year used for the calculation of chain-linked volume data, namely the year 2000, with the reference year 2020.

In the calculation of the quarterly data based on the chained volumes, NIS Romania applies the annual overlap technique, on the recommendation of Eurostat in order to maintain comparability between member states. Therefore, statistical data regarding the evolution of QGDP have become comparable. Chain-linking with a reference year is a purely statistical technique used mainly to determine the dynamics (please see Tables 1.1 and 1.2) that do not affect the gross series of national accounts in current prices or in the average prices of the corresponding quarter of the previous year.

NIS has updated the seasonal adjustment techniques (using the JDemetra+ software) in the quarterly national accounts, replacing the TRAMO-SEATS method with the X13-ARIMA method.

The evolution of the quarterly Gross Domestic Product for the period 2021 – 2023, computed as unadjusted and seasonally adjusted series, is presented in the table below.

¹ Seasonally adjusted series.

Table 1.1: Evolution of Quarterly Gross Domestic Product, reference year = 2000 version

		Q1	Q2	Q3	Q4	Year
- in % as against the corresponding period of the previous year -						
Unadjusted series	2021	99.7	115.4	106.7	102.4	105.8
	2022	106.3	105.0	103.7	104.5	104.7
	2023	102.4	-	-	-	-
Seasonally adjusted series	2021	99.0	111.5	108.4	105.4	-
	2022	104.9	104.1	103.7	104.0	-
	2023	102.9	-	-	-	-
- in % as against the previous quarter -						
Seasonally adjusted series	2021	102.0	101.8	100.8	100.6	-
	2022	101.6	101.0	100.4	100.9	-
	2023	100.5	-	-	-	-

Table 1.2: Evolution of quarterly Gross Domestic Product, reference year = 2020 version

		Q1	Q2	Q3	Q4	Year
- in % as against the corresponding period of the previous year -						
Unadjusted series	2021	99.9	115.2	106.3	102.5	105.7
	2022	105.0	105.1	103.8	104.6	104.7
	2023	102.4	101.0	-	-	-
Seasonally adjusted series	2021	101.1	112.6	107.2	102.5	-
	2022	104.6	104.5	104.2	105.0	-
	2023	101.2	102.6	-	-	-
- in % as against the previous quarter -						
Seasonally adjusted series	2021	100.7	100.3	101.1	100.4	-
	2022	102.7	100.3	100.8	101.1	-
	2023	99.0	101.7	-	-	-

[The data of the table in Excel format.](#)

Seasonally adjusted series

The Gross Domestic Product – seasonally adjusted data - estimated for Q2 2023 amounted to 395975.2 million lei current prices, increasing – in real terms – by 1.7% against Q1 2023 and by 2.6% against Q2 2022.

The seasonally adjusted estimates of the Gross Domestic Product, both in the previous version with reference year 2000 and seasonal adjustment model TRAMO-SEATS, and in the current version with reference year 2020 and seasonal adjustment model X13, are presented in the following tables.

Table 2.1: Quarterly GDP, in the first half of year 2023 - seasonally adjusted series (*)

	Q1	Q2	First half of year
Millions RON, current prices	393339.0	399752.1	793091.1
In % as against the previous quarter	100.5	100.9	-
In % as against the corresponding period of the previous year	102.9	102.7	102.8

*) 2000 as reference year and TRAMO-SEATS for the seasonal adjustment model.

Table 2.2: Quarterly GDP, in the first half of year 2023 - seasonally adjusted series ()**

	Q1	Q2	First half of year
Millions RON, current prices	388616.3	395975.2	784591.5
In % as against the previous quarter	99.0	101.7	-
In % as against the corresponding period of the previous year	101.2	102.6	101.9

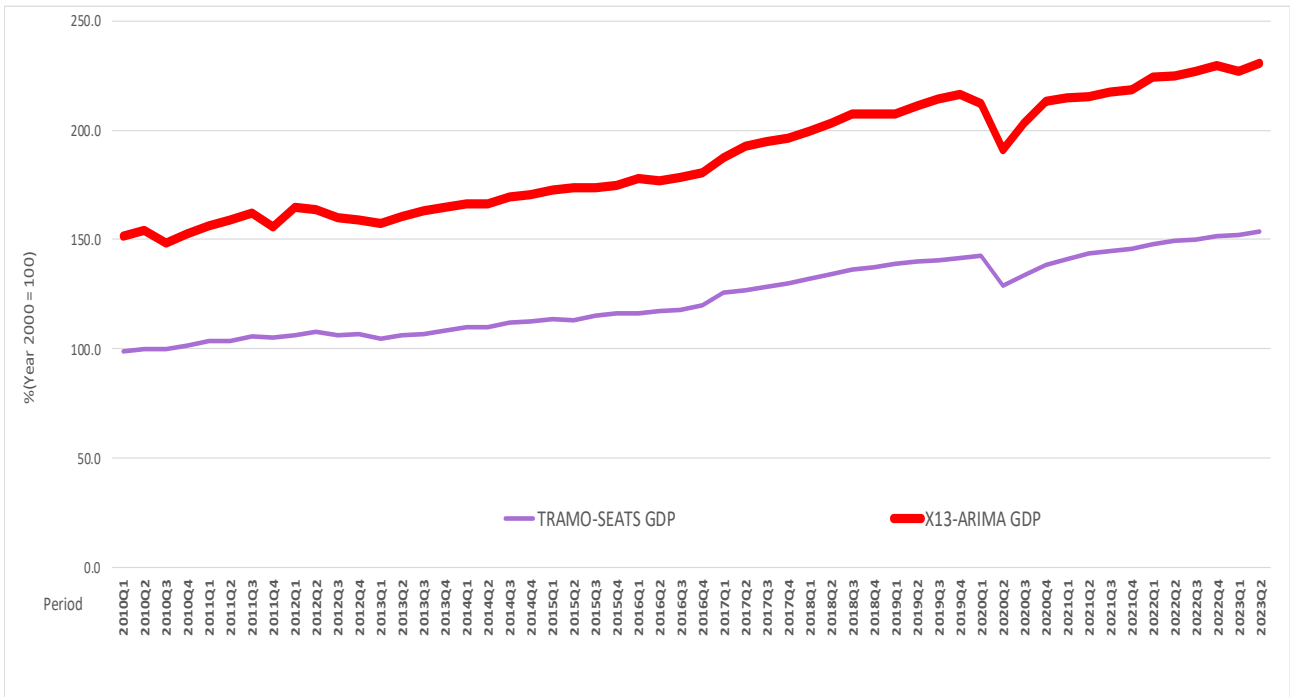
**) 2020 as reference year and X13 for the seasonal adjustment model

[The data of the table in Excel format.](#)

The Gross Domestic Product estimated for the first half of 2023 amounted to 784591.5 million lei current prices, increasing – in real terms – by 1.9% against the first half of 2022.

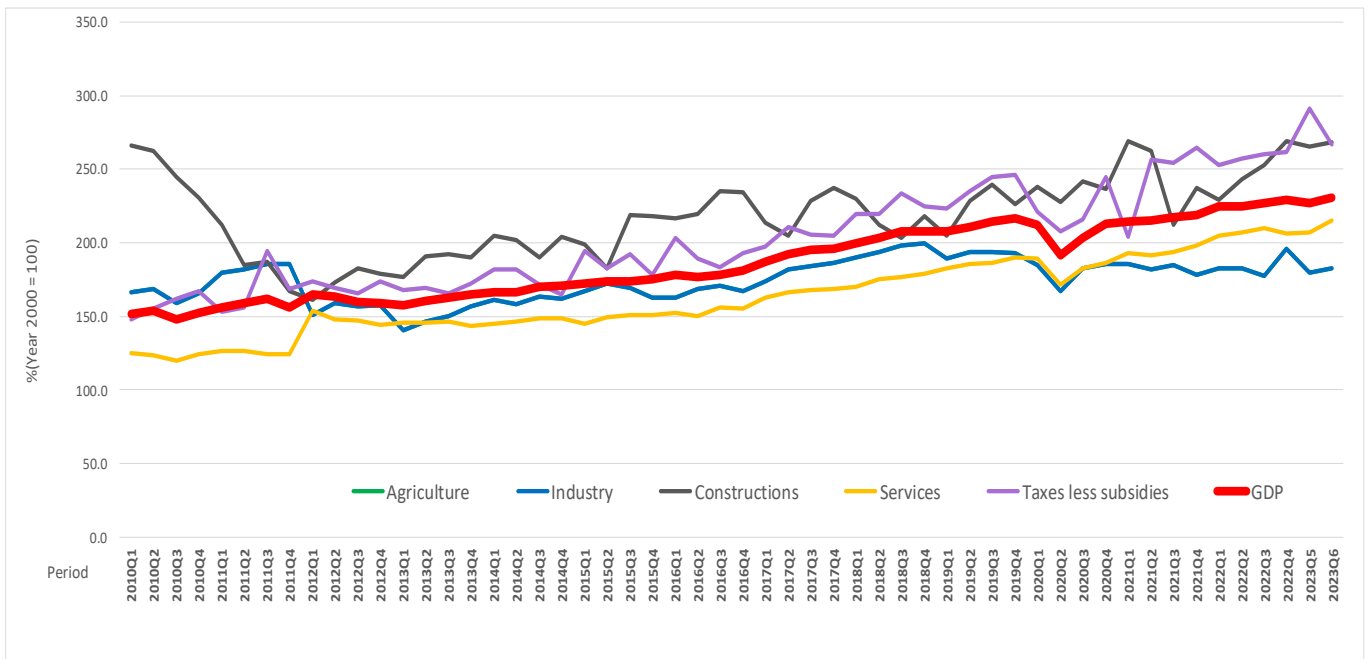
Graph 1: GDP evolution – Seasonally adjusted series

- 2000 reference year and TRAMO-SEATS SA method vs. 2020 reference year and X13 method -



Graph 2: GDP evolution – Seasonally adjusted series

- 2020 reference year and X13-ARIMA SA method -



[The data of the graph in Excel format.](#)

Unadjusted series

The Gross Domestic Product estimated for Q2 2023 amounted to 377209.2 million lei current prices, increasing – in real terms – by 1.0% as against Q2 2022.

The estimates of the Gross Domestic Product – unadjusted series in the provisional (1) and (2) versions, as well as the differences between the two versions, are presented in the table below.

Table 3: Quarterly GDP, in the first half of year 2023 - unadjusted series

		Q1	Q2	First half of year
Millions RON, current prices	<i>Provisional (1)</i>	312092.3	371466.4	
	<i>Provisional (2)</i>	318557.1	377209.2	695766.3
	<i>Differences</i>	6464.8	5742.8	
In % as against the corresponding period of the previous year	<i>Provisional (1)</i>	102.3	101.1	101.7
	<i>Provisional (2)</i>	102.4	101.0	101.7
	<i>Differences</i>	0.1	-0.1	0.0

[The data of the table in Excel format.](#)

The Gross Domestic Product estimated for the first half of 2023 amounted to 695766,3 million lei current prices, increasing – in real terms – by 1.7% as against the first half of 2022.

In tables 6, 7 and 8 the information on nominal GDP, volume indices and deflators – unadjusted and seasonally adjusted series – for Q2 and the first half of 2023 is presented.

The contribution of resources and uses to the growth rate of GDP

Resources

As compared to the provisional version (1), in Q2 2023, the GDP growth rate decreased by -0.1 percentage points, (from 101.1% to 101.0%) and the Gross value added growth rate decreased by -0.1 percentage points (from 101.0% to 100.9%); the net taxes on products growth rate increased by 0.1 percentage points.

Gross value added volume by industries recorded more significant changes in:

- Agriculture, forestry and fishing (+0.1 percentage points);
- Professional, scientific and technical activities; activities of administrative services and support services +0.2 percentage points).

Table 4: The contribution of GDP resources to the nominal value and growth rate of GDP, in Q2 2023

	Contribution to the nominal value of GDP - %		Contribution to the growth rate of GDP - %	
	Provisional (1)	Provisional (2)	Provisional (1)	Provisional (2)
Agriculture, forestry and fishing	2.4	2.4	0.0	0.0
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning production and supply; water supply; sewerage, waste management and decontamination activities	20.9	20.9	-0.9	-0.9
Construction	4.6	4.5	0.2	0.2
Wholesale and retail; repair of motor vehicles and motorcycles; transport and storage; hotels and restaurants	21.1	20.5	0.2	0.1
Information and communication	7.1	7.0	0.4	0.4
Financial intermediation and insurance	2.6	2.6	0.0	0.0
Real estate activities	7.6	7.5	0.3	0.3
Professional, scientific and technical activities; activities of administrative services and support services	8.7	8.6	0.3	0.3
Public administration and defense; social insurance of public sector; education; health and social assistance	12.0	13.1	0.1	0.1
Shows, culture and recreation activities; repair of households goods and other	4.2	4.2	0.3	0.3
Gross value added	91.2	91.3	0.9	0.8
Net taxes on products	8.8	8.7	0.2	0.2
Gross domestic product	100.0	100.0	1.1	1.0

[The data of the table in Excel format.](#)

Uses

From GDP uses standpoint, significant changes in the contribution to the growth rate of GDP between the two estimates were recorded for collective final consumption expenditure of General government, from +0.0% to +1.6%, and change in inventories from -4.0% to -3.9%.

Table 5: The contribution of GDP expenditure to the nominal value and growth rate of GDP, in Q2 2023

	Contribution to the nominal value of GDP - %		Contribution to the growth rate of GDP - %	
	Provisional (1)	Provisional (2)	Provisional (1)	Provisional (2)
Total final consumption	78.0	79.2	0.9	1.6
Actual individual consumption of households	69.5	68.3	0.9	0.0
Final consumption expenditure of households	62.2	61.3	1.1	1.1
Final consumption expenditure of Non-profit institutions serving households	0.4	0.4	0.0	0.0
Individual final consumption expenditure of General government	6.9	6.6	-0.2	-1.1
Collective final consumption expenditure of General government	8.5	10.9	0.0	1.6
Gross fixed capital formation	27.1	26.1	3.0	2.3
Change in inventories	-1.1	-1.1	-4.0	-3.9
Net export	-4.0	-4.2	1.2	1.0
Export of goods and services	42.0	41.6	-0.5	-0.3
Import of goods and services	46.0	45.8	-1.7	-1.3
Gross domestic product	100.0	100.0	1.1	1.0

[The data of the table in Excel format.](#)

Tabel 6: GROSS DOMESTIC PRODUCT BY RESOURCES AND USES, IN Q2 2023

- unadjusted series -

	Millions RON current prices	Volume indices – în % as against Q2 2022	Price indices – în % as against Q2 2022
Agriculture, forestry and fishing	8993.9	98.4	112.7
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning production and supply; water supply; sewerage, waste management and decontamination activities	78792.4	96.0	113.2
Construction	17089.1	105.4	120.2
Wholesale and retail; repair of motor vehicles and motorcycles; transport and storage; hotels and restaurants	77442.2	100.5	111.5
Information and communication	26271.2	105.8	110.3
Financial intermediation and insurance	9674.6	100.0	113.5
Real estate activities	28376.4	104.3	110.8
Professional, scientific and technical activities; activities of administrative services and support services	32291.1	103.3	116.1
Public administration and defense; social insurance of public sector; education; health and social assistance	49582.8	101.2	115.5
Shows, culture and recreation activities; repair of households goods and other services	15916.5	106.4	114.2
Gross value added	344430.2	100.9	113.3
Net taxes on products ¹⁾	32779.0	102.3	104.7
Gross domestic product	377209.2	101.0	112.5
Final consumption	298717.6	102.0	112.3
Actual individual consumption of households ²⁾	257426.0	100.0	112.0
Final consumption expenditure of households	231170.9	101.8	111.6
Final consumption expenditure of Non-profit institutions serving households	1444.4	101.1	113.6
Individual final consumption expenditure of General government	24810.7	85.4	115.4
Collective final consumption expenditure of General government ³⁾	41291.6	116.7	114.4
Gross capital formation	94261.2	94.4	107.3
of which:			
Gross fixed capital formation	98394.7	109.1	106.9
Net export	-15769.6	-	-
Export of goods and services	157082.5	99.4	105.3
Import of goods and services	172852.1	97.5	103.1

1) Represents the difference between taxes on product due to the State Budget (VAT, excise duties, other taxes) and product subsidies paid from the State Budget.

2) Comprises: expenditure of population households for purchasing goods and services in view to meet their members needs, the expenditure for individual consumption of public administration (education, health, social security and social activities, culture, sport, leisure activities, collection of household waste) and the expenditure for individual consumption of non-profit institutions serving households (religious organisations, trade unions, political parties, unions, foundations, cultural and sport associations).

3) Comprises the expenditure for collective consumption of public administration (general public services, national defence and territory security, public order and security, legislative and regulatory activities, research & development, etc.).

[The data of the table in Excel format.](#)

Tabel 7: GROSS DOMESTIC PRODUCT BY RESOURCES AND USES, IN Q2 2023

- seasonally adjusted series -

	Milions RON current prices	Volume indices – în % as against Q1 2023	Price indices – în % as against Q1 2023
Agriculture, forestry and fishing	17613.7	106.2	98.4
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning production and supply; water supply; sewerage, waste management and decontamination activities	85911.7	101.4	93.9
Construction	26324.9	101.2	108.2
Wholesale and retail; repair of motor vehicles and motorcycles; transport and storage; hotels and restaurants	74637.9	101.5	101.1
Information and communication	27163.9	103.8	100.9
Financial intermediation and insurance	10444.9	101.7	101.2
Real estate activities	28961.0	106.3	101.9
Professional, scientific and technical activities; activities of administrative services and support services	29687.5	107.1	103.2
Public administration and defense; social insurance of public sector; education; health and social assistance	50946.6	103.1	103.7
Shows, culture and recreation activities; repair of households goods and other services	11098.3	106.4	102.6
Gross value added	362790.4	103.7	99.6
Net taxes on products ¹⁾	35362.5	91.6	97.9
Statistical discrepancy	-2177.7	-	-
Gross domestic product	395975.2	101.7	100.2
Final consumption	319451.7	102.5	100.9
Actual individual consumption of households ²⁾	277079.5	101.6	100.2
Final consumption expenditure of households	250005.1	103.3	100.3
Final consumption expenditure of Non-profit institutions serving households	2651.7	94.4	103.9
Individual final consumption expenditure of General government	24422.7	84.2	102.6
Collective final consumption expenditure of General government ³⁾	42372.2	107.9	108.0
Gross capital formation	96709.8	100.0	98.8
of which:			
Gross fixed capital formation	100138.7	103.5	95.3
Net export	-17165.6	-	-
Export of goods and services	157346.0	101.7	97.5
Import of goods and services	174511.6	101.0	99.2
Statistical discrepancy	-3020.7	-	-

1) Represents the difference between taxes on product due to the State Budget (VAT, excise duties, other taxes) and product subsidies paid from the State Budget.

2) Comprises: expenditure of population households for purchasing goods and services in view to meet their members needs, the expenditure for individual consumption of public administration (education, health, social security and social activities, culture, sport, leisure activities, collection of household waste) and the expenditure for individual consumption of non-profit institutions serving households (religious organisations, trade unions, political parties, unions, foundations, cultural and sport associations).

3) Comprises the expenditure for collective consumption of public administration (general public services, national defence and territory security, public order and security, legislative and regulatory activities, research & development, etc.).

[The data of the table in Excel format.](#)

Table 8: GROSS DOMESTIC PRODUCT BY RESOURCES AND USES, IN THE FIRST HALF OF 2023

	- unadjusted series -		
	Milions RON current prices	Volume indices – în % as against the first half of 2022	Price indices – în % as against the first half of 2022
Agriculture, forestry and fishing	14826.8	98.7	117.3
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning production and supply; water supply; sewerage, waste management and decontamination activities	150111.4	96.7	120.0
Construction	28200.3	106.8	115.5
Wholesale and retail; repair of motor vehicles and motorcycles; transport and storage; hotels and restaurants	145828.6	102.0	113.4
Information and communication	51841.1	105.8	110.0
Financial intermediation and insurance	18955.5	100.0	114.9
Real estate activities	50777.9	102.7	109.5
Professional, scientific and technical activities; activities of administrative services and support services	48345.9	105.5	114.3
Public administration and defense; social insurance of public sector; education; health and social assistance	96493.5	101.1	112.6
Shows, culture and recreation activities; repair of households goods and other services	22787.2	106.7	113.6
Gross value added	628168.2	101.5	114.5
Net taxes on products ¹⁾	67598.1	103.2	107.2
Gross domestic product	695766.3	101.7	113.7
Final consumption	571108.4	104.3	111.8
Actual individual consumption of households ²⁾	494997.4	103.2	111.7
Final consumption expenditure of households	443783.0	104.0	111.6
Final consumption expenditure of Non-profit institutions serving households	2727.4	104.8	112.9
Individual final consumption expenditure of General government	48487.0	97.1	112.5
Collective final consumption expenditure of General government ³⁾	76111.0	111.7	112.3
Gross capital formation	153769.8	89.4	110.3
of which:			
Gross fixed capital formation	159353.9	109.6	108.1
Net export	-29111.9	-	-
Export of goods and services	314433.3	100.5	108.0
Import of goods and services	343545.2	98.8	104.2

1) Represents the difference between taxes on product due to the State Budget (VAT, excise duties, other taxes) and product subsidies paid from the State Budget.

2) Comprises: expenditure of population households for purchasing goods and services in view to meet their members needs, the expenditure for individual consumption of public administration (education, health, social security and social activities, culture, sport, leisure activities, collection of household waste) and the expenditure for individual consumption of non-profit institutions serving households (religious organisations, trade unions, political parties, unions, foundations, cultural and sport associations).

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[The data of the table in Excel format.](#)

Supplementary information:

For an accurate interpretation of the indicators, please see the [Methodological notes](#).

The data on quarterly GDP – unadjusted and seasonally adjusted series – for the period Q1 1995 – Q2 2023 is published on the INS website:

<https://insse.ro/cms/en/content/gross-domestic-product>

The Gross Domestic Product for Q3 2023, “flash” estimates, will be published in a press release, according to the schedule found on the INS website, on November 14, 2023.

Comparative data with the other European Union Member States are to be found in the Eurostat website which could be found following the link:

<https://ec.europa.eu/eurostat/>

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