CENTRAL BANK OF MONTENEGRO

INFLATION REPORT
QUARTER III, 2024

Year XX, Number 62

PUBLISHED BY
Central Bank of Montenegro
Bulevar Svetog Petra Cetinjskog 6
81000 Podgorica
Telephone: +382 20 664 997, 664 269
Fax: +382 20 664 576

WEB SITE
http://www.cbcg.me

CENTRAL BANK COUNCIL
Irena Radović, PhD, Governor
Nikola Fabris, PhD, Vice-Governor
Zorica Kalezić, PhD, Vice-Governor
Milorad Jovović, PhD
Ruždija Tuzović

DESIGNED BY
Nikola Nikolić
Nikola Marđonović

TRANSLATED BY
Department for Financial Stability, Research and Statistics

Users of this publication are requested to make reference to the source of information whenever they use data from the Report.

CONTENTS

1. INFLATION INDICATORS 5

2. INFLATION EXPECTATIONS 11

2.1. Banks' expectations 11
2.2. Expectations of economy (except banks) 13

3. INFLATION DETERMINANTS 16

3.1. Demand 16
3.1.1. Earnings and other available demand determinants 17
3.1.2. Budget analysis 19
3.1.3. Non-financial sector 20
3.1.4. External demand and the current account 21
3.2. Supply and production 22
3.3. Stock exchange indices 23

4. MONETARY POLICY 24

5. INFLATION FORECAST FOR ONE QUARTER OF 2024 AND THE FIRST THREE QUARTERS OF 2025 25

5.1. Model assessment 25

6. EXPECTED INFLATION IN 2024 29

1. INFLATION INDICATORS

Global inflation slowed down in the first nine months of 2024. The IMF[1] October 2024 forecast indicates that the global average inflation will be 5.8% this year (dropping from 6.7% in 2023). Prices of commodities stabilised, while prices of services remained high in many regions. The forecast in most countries is forecast to be at the level or near the target by end-2025. According to the European Commission's[2] November forecasts, the annual average inflation rate in the EU will be 2.6% (drop from 6.4% in 2023), and it will further decrease to 2.4% in 2025. After the ECB reduced its reference rates by 0.25 pp in June, the Governing Council of the ECB estimates on expected inflation trend resulted in additional monetary policy easing. Thus, the reference interest rate on deposits decreased by additional 0.25 pp in September. It is expected that the key interest rates will remain restrictive until target inflation rate is reached. In September, Federal Reserves decreased reference interest rate by 0.5 pp resulting from expected inflation trend to the 2% target.

Observed year-over-year, consumer prices in Montenegro were 3.9% higher in the first nine months of 2024, while the average price growth in September this year recorded 1.0% year-over-year (which is below the inflation level recorded in the euro area and the EU of 1.7% and 2.1%, respectively). During the third quarter of 2024, consumer prices rose 0.3%, primarily owing to price increase in the categories of hotels and restaurants of 5.8% and housing, water, electricity gas and other fuels of 1.5% (table 2). Observation of consumer prices monthly trends shows that the price increase was recorded in July and August (0.4% each), while prices declined in September (0.4%).

Table 1

Inflation in Montenegro in the period March 2023 - September 2024, in %

	2023				2024		
	III	VI	IX	XII	III	VI	IX
Change in relation to the previous year-end	0.2	1.9	5.4	4.3	1.5	1.7	2.1
Annual change	10.5	7.5	7.9	4.3	5.5	4.1	1.0

Source: MONSTAT

During the third quarter of 2024, price growth in Montenegro was recorded in eight out of twelve categories that accounted for 41.08% of the consumer basket (table 2). Price growth in *hotels and restaurants*

[1] Source: IMF - *World Economic Outlook*, October 2024

[2] Source: European Commission – *Autumn 2024 Economic Forecast*, November 2024

of 5.8% was the main contributor to the growth of total inflation (0.31 pp), mostly as a result of the increase in the prices of accommodation of 8.9% during the summer tourist season. A significant contributor (with 0.21 pp) to the price increase was also price growth in the *housing, water, electricity gas and other fuels* category of 1.5%, as a result of an increase in the prices of solid fuels of 2.1% and services for maintenance and repair of dwellings of 6.7%. Price increase in the reporting period was also recorded with the following categories: *miscellaneous goods and services* of 2.2%, *communication* of 2.0%, *furnishing, household equipment and routine household maintenance* of 1.7%, *education* of 0.9%, and *health* and *recreation and culture* of 0.6% each. Price decline was seen in the categories of *clothing and footwear* (3.6%), *transport* (1.4%), and *food and non-alcoholic beverages* (0.2%), while there were no price changes in the *alcoholic beverages and tobacco* category during the third quarter of the current year.

With a view to reducing inflation and protecting the vulnerable category of low-income customers, at the end of March this year, the Government of Montenegro adopted the Decision Amending the Decision on Interim Measures for Limiting Prices of Products of Special Importance for Human Life and Health and the List of Products. The decision implied limiting the trade mark-ups from 5% to 15% to wholesalers and retailers for 43 products (over 500 items, varying in terms of weight and manufacturer) and it was valid until 31 May; later amendments to the Decision with the validity until end-June put a particular emphasis on domestic producers' products. Due to increased prices of basic food products, the Decision[3] was amended again and limited mark-ups from to 5% in wholesale and to 7% in retail sale for wheat flour (types 400 and 500), sugar, sunflower oil and kitchen salt. At the end-August, the Decision was amended[4], limiting mark-ups to 66 products (cca. 1000 items) with the exception of small trades and is valid until 31 January 2025.

Table 2

Growth rate and contribution of individual categories in total inflation[5] in Montenegro

	Weights	IX 2024 / VI 2024	Rate	Contribution
TOTAL	1,000.0	100.3	0.3	0.3
Food and non-alcoholic beverages	360.6	99.8	-0.2	-0.1
Alcoholic beverages and tobacco	39.1	100.0	0.0	0.0
Clothing and footwear	76.8	96.4	-3.6	-0.3
Housing, water, electricity gas and other fuels	141.5	101.5	1.5	0.2
Furnishing, household equipment and routine household maintenance	44.2	101.7	1.7	0.1
Health	38.4	100.6	0.6	0.0
Transport	112.6	98.6	-1.4	-0.2
Communication	42.5	102.0	2.0	0.1
Recreation and culture	30.2	100.6	0.6	0.0
Education	17.7	100.9	0.9	0.0
Restaurants and hotels	52.5	105.8	5.8	0.3
Miscellaneous goods and services	43.8	102.2	2.2	0.1

Source: MONSTAT and CBCG calculations

[3] Source: OGM 70/24 of 22 July 2024

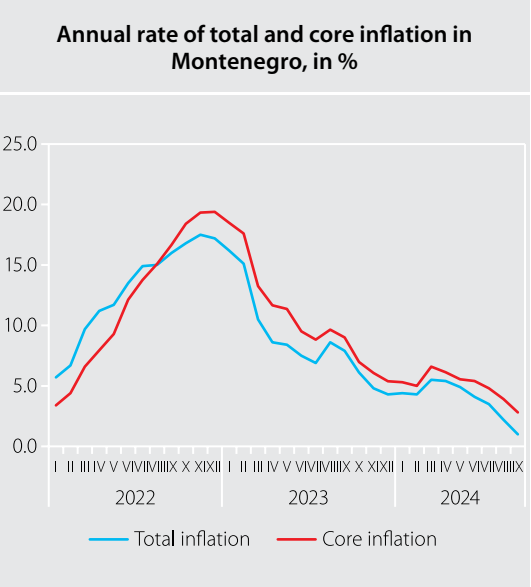
[4] Source: OGM 83/24 of 29 August 2024

[5] It should be noted that, regardless of the index changes, the contribution of the share of certain categories is not recorded before the second and/or third decimal due to the weight structure.

The annual core inflation rate stood at 2.8% in September this year and it was 1.8 pp higher than total annual inflation[6]. This was due to the rise in the prices of almost all groups of food products that are not excluded from the calculation, as well as the prices of other product groups that determine core inflation on annual level. Annual core inflation was higher than the total inflation in all three months of the third quarter (graph 1). The largest spread between total annual and core inflation was recorded in September due to price changes of certain products that are included in the annual inflation calculation, but not included in the core inflation calculation (e.g. prices of a large number of agricultural products, tobacco, fuel and lubricants, and the like).

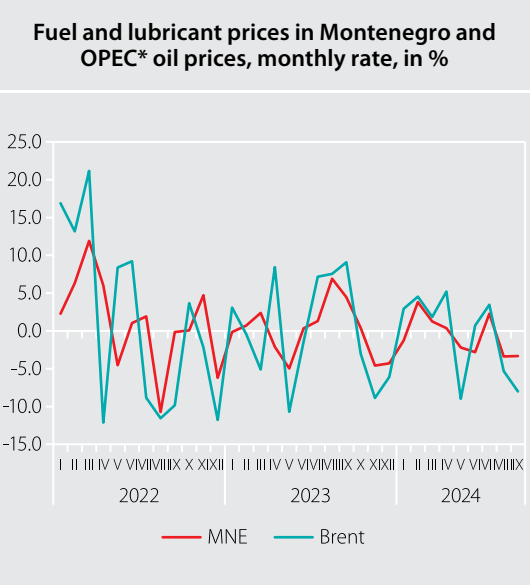
In the third quarter of this year, oil prices were lower than in the previous quarter and year-over-year. The price of the OPEC reference basket averaged at $78.81/bbl in this period, being 7.62% lower than the average recorded in Q2 and 10.10% lower compared a year ago. In the same period, the average price of Brent oil (benchmark North Sea Dated) was $80.08/bbl, which is 5.46% less than in the previous quarter and 7.67% below the price recorded than in the third quarter of the previous year. The average price of Brent oil decreased in August and September mainly due to the economic slowdown of China, the globally highest oil importer, and traders' concern that the slower growth in the largest global economies would reduce demand for this fuel. Also, the lowest price since December 2021 was recorded in September this year ($74.26/barrel). According to the World Bank's October 2024[7] report, a slight decrease in the average price of crude oil is expected to range to $80/bbl, while a significant fall to an average of $73/bbl is expected in 2025.

Graph 1



Source: MONSTAT and CBCG calculations

Graph 2



Source: MONSTAT and OPEC Monthly Oil Market Reports
(*North Sea Dated)

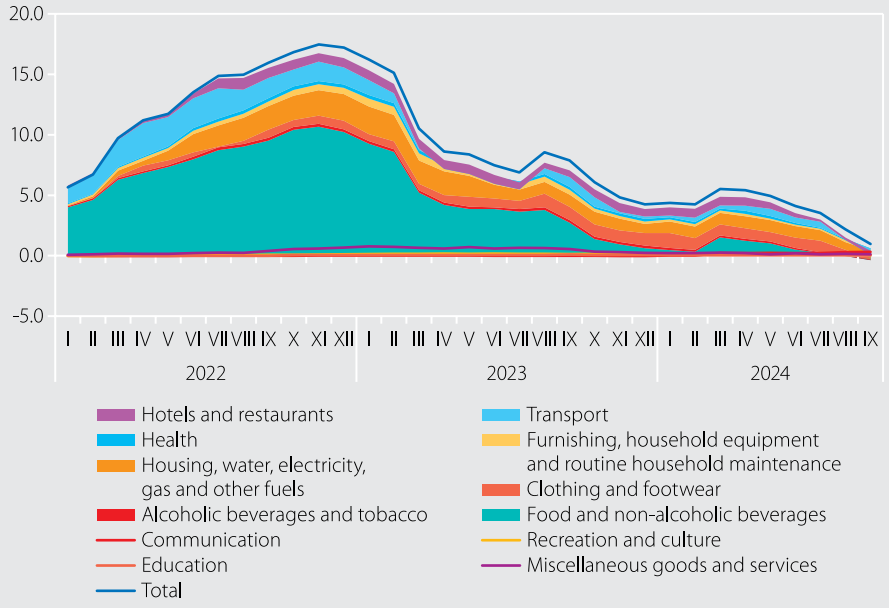
[6] Core inflation is used as an indicator of the trend of a long-term rate or a future rate of inflation, i.e. it enables distinguishing between temporary price shocks and long-term inflation. Total annual inflation is an indicator of the average price change of all products and services used by households for consumption purposes. Read more on the methodology at: *https://www.cbcg.me/slike_i_fajlovi/eng/fajlovi/fajlovi_publikacije/radne_studije/obracun_bazicne_stope_inflacije_english.pdf*

[7] World Bank – *Commodity Markets Outlook* - October 2024

The global oil supply in 2025 is estimated to reach some 105 mb/d and that it will exceed the demand by 1.2 mb/d in average. The increase is most expected in Brazil, Canada, Guyana and the USA, while the output of OPEC+ members will record a mild growth, all jointly reflecting the forecast priced decline.

Graph 3

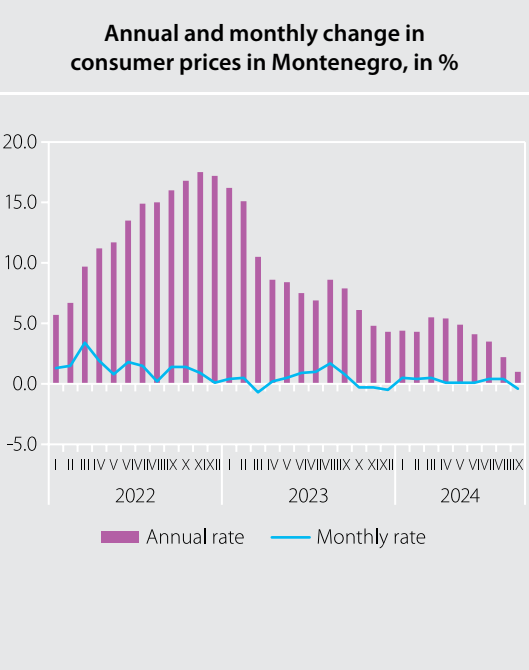
Consumer prices' components in Montenegro, contribution to annual growth rate



Source: MONSTAT

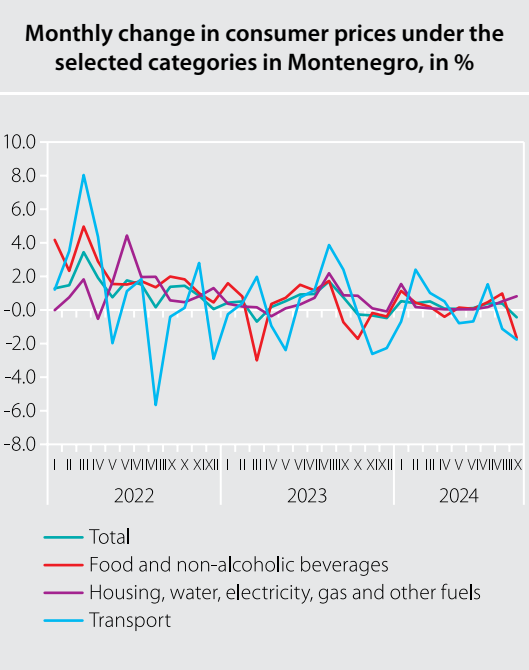
According to MONSTAT data, the price growth of 4.3% in the *housing, water, electricity gas and other fuels* category was the biggest contributor (with 0.60 pp) to total annual inflation growth of 1.0% in September this year (graph 3). The annual price increase was also recorded with the following categories: *communications* of 7.4%, *restaurants and hotels* of 6.4%, *recreation and culture* and *miscellaneous goods and services* of 2.8% each, *furnishing, household equipment and routine household maintenance* of 2.5%, *clothing and footwear* and *health* of 1.6% each, *alcoholic beverages and tobacco* of 1.2%, *education* of 0.9%, while *transport* and *food and non-alcoholic beverages* recorded a decline of 4.7% and 1.0%, respectively.

Graph 4



Source: MONSTAT

Graph 5

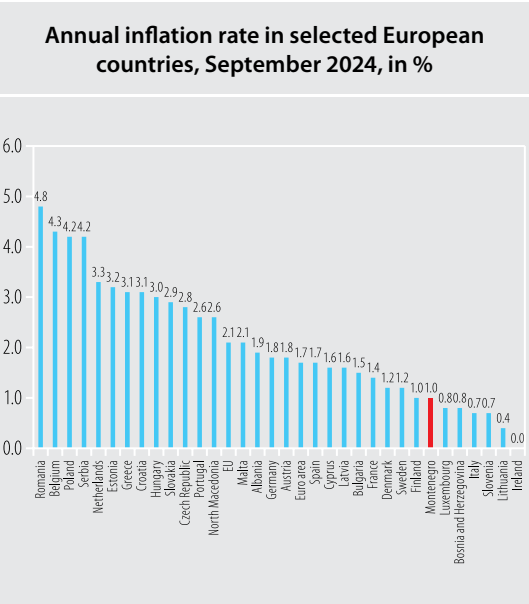


Source: MONSTAT

Producers` prices of manufactured products recorded an increase of 0.2% in September this year compared to December 2023. Manufacturing industry recorded a 2.1% price increase, while prices in the mining and quarrying sector dropped by 4.9%. Prices remained unchanged in the electricity, gas and steam supply sector. In September this year, the producers' prices of manufactured products recorded the annual growth of 2.3%.

Inflation slowdown was seen in all countries in the region and many of the EU member states. In September 2024, the highest annual rate of consumer prices among countries in the region was recorded in Serbia (4.2%), North Macedonia (2.6%) and Albania (1.9%), while Bosnia and Herzegovina recorded the rate of 0.8% (graph 6).

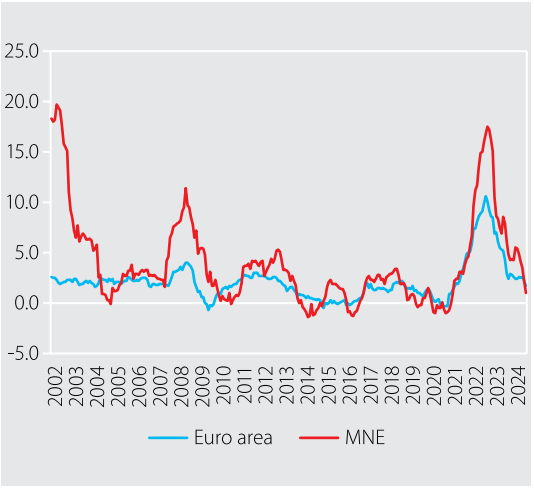
Graph 6



Source: National statistical offices (CPI in countries in the region) and Eurostat (HICP in the EU countries)

Graph 7

Inflation in the Euro area (HICP) and Montenegro (CPI)[10] since the introduction of the euro (annual rate, in %)



Source: MONSTAT and Eurostat

The annual HICP[8] inflation recorded in the EU stood at 2.1% in September 2024. Of the EU member states, the highest annual inflation rates were recorded in Romania of 4.8%, while the lowest rate of 0% was in Ireland. The annual HICP inflation in the euro area amounted to 1.7% and it was 1.2 pp lower than the annual rate in December 2023, and the main contributors with 1.76 pp and 0.47 pp were the annual price growth of services of 3.9% and food, alcoholic beverages and tobacco of 2.4%. In its November report[9], the European Commission forecast inflation in the euro area of 2.4% in 2024 and 2.1% in 2025.

[8] Harmonised Index of Consumer Prices (HICP) is the basis for a comparative measure of inflation in Europe, as well as for assessing the stability of monetary value in the euro area. Each EU member state is obliged to produce the HICP index.

[9] Source: European Commission - *Autumn 2024 Economic Forecast: A gradual rebound in an adverse environment*, November 2024

[10] Cost of living has been used for measuring inflation in Montenegro until 2009, after which consumer prices were introduced.

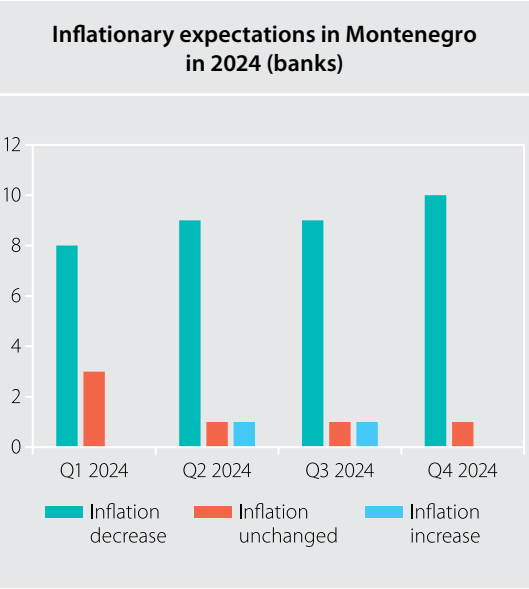
2. INFLATION EXPECTATIONS

2.1. Banks' expectations

As for expectations of banks, based on the survey conducted in November this year, ten banks expect inflation to decline, while one bank believes that it will remain at the 2023 level. None of banks expected inflation growth (graph 8).

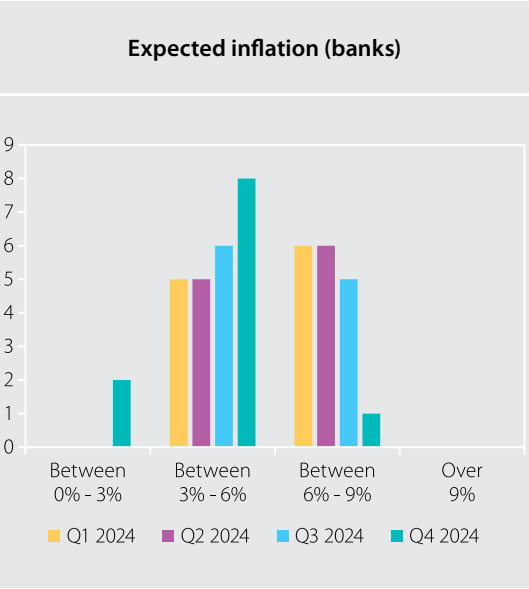
As for inflation expectations, eight banks expect inflation between 3% and 6%, two banks expect it to be between 0% and 3%, and one bank expects it to be between 6% and 9%, while none of banks expected inflation higher than 9% (graph 9).

Graph 8



Source: Central Bank Survey

Graph 9

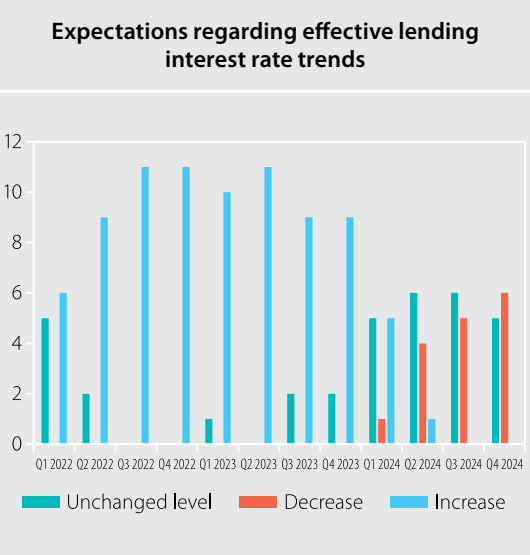


Source: Central Bank Survey

As for expectations regarding the nominal lending interest rates, six banks believe they will remain at the same levels, five banks expect decline, while none of banks expect them to rise. When it comes to expectation of effective lending interest rates, six banks expect them to decline, five banks expect them to stay at the same levels, while none of the banks expected them to grow compared to 2023 (graph 10).

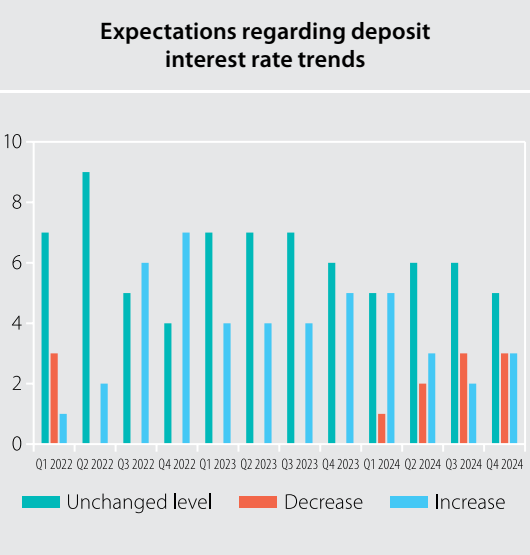
In reference to deposit interest rates' trends, five banks expect no change, three banks expect their decrease, while three banks expect a growth in deposit interest rates (graph 11).

Graph 10



Source: Central Bank Survey

Graph 11



Source: Central Bank Survey

Graph 12

Source: Central Bank Survey

For the purpose of calculating inflation forecasts, we use the market trend indicator (line in graph 12) that is calculated as the difference between the number of banks expecting inflation growth and those expecting inflation decline. If the market trend indicator has a negative value, a decrease in inflation is expected in the upcoming period. However, if its value is positive, then an increase in the inflation rate can be expected. If it has a zero value, an unchanged inflation rate can be expected in the upcoming period. The more negative value of the market trend indicator, the lower the inflation expectations and vice versa, higher positive value means higher inflation level expectations. The surveys conducted in all four quarters indicate a decline in banks' inflation expectations in 2024.

2.2. Expectations of economy (except banks)

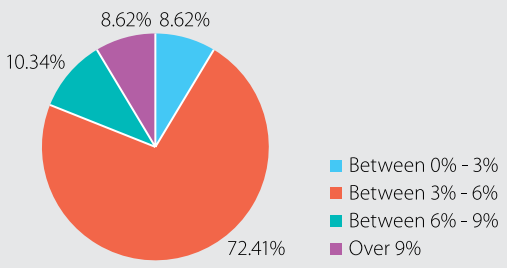
Inflation

Of the total number of surveyed companies, 72.41% expect the inflation to range between 3% and 6% in 2024. Inflation is expected to fluctuate between 6% and 9% by 10.34% of companies, while 8.62% of companies each expect inflation between 0% and 3% and above 9% (graph 13).

As much as 91.53% of the surveyed companies expect earnings to rise in 2024 in relation to the previous year, 6.78% expect them to remain the same and 1.69% their drop (graph 14). With regard to employment, 50.85% of the respondents expect it to remain the same, 47.46% expect this number to increase, and 1.69% expect it to decline in relation to the previous year (graph 15).

Graph 13

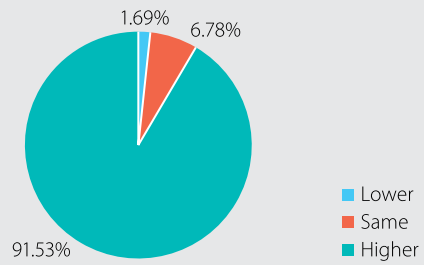
Expected annual inflation rate in Montenegro in 2024 (responses based on percentage share)



Source: Central Bank Survey

Graph 14

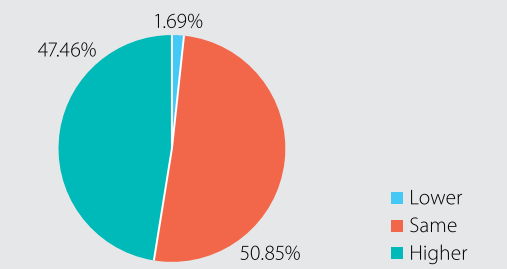
Expected earnings in 2024 in relation to 2023



Source: Central Bank Survey

Graph 15

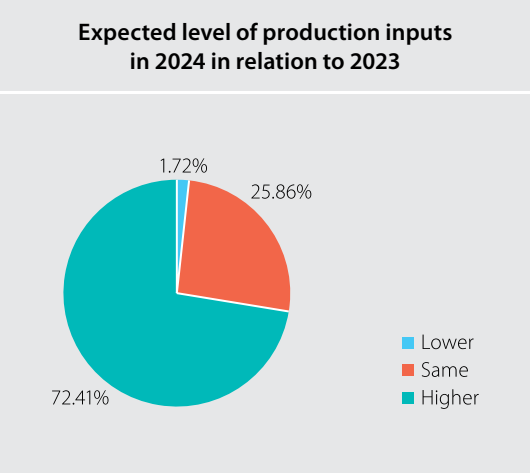
Expected number of employed persons in 2024 in relation to 2023



Source: Central Bank Survey

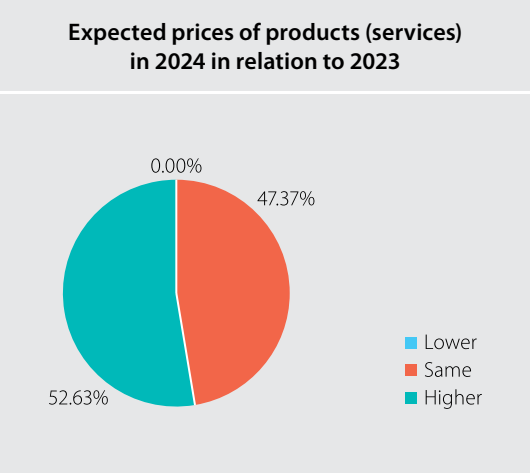
The majority of surveyed companies (72.41%) expect higher prices of production inputs they use (graph 16), while 52.63% plan to increase the prices of their products and/or services in 2024 (graph 17).

Graph 16



Source: Central Bank Survey

Graph 17



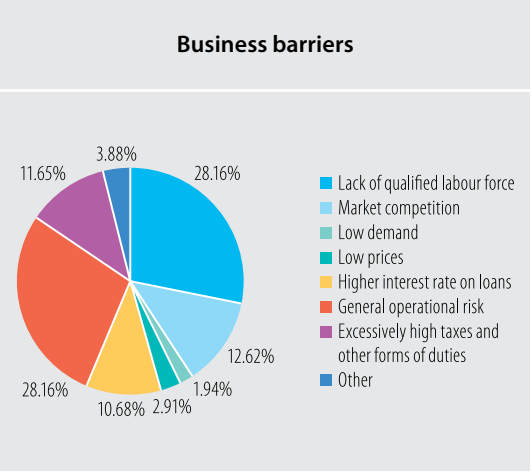
Source: Central Bank Survey

Business Environment

The survey results also show that most of the surveyed companies (28.16% each) see general operational risks and the lack of skilled workers on the labour market as the major business barriers, followed by market competition (12.62%), high taxes and other duties (11.65%), high lending interest rates (10.68%), other barriers (3.88%), low prices (2.91%) and poor demand (1.94%) (graph 18).

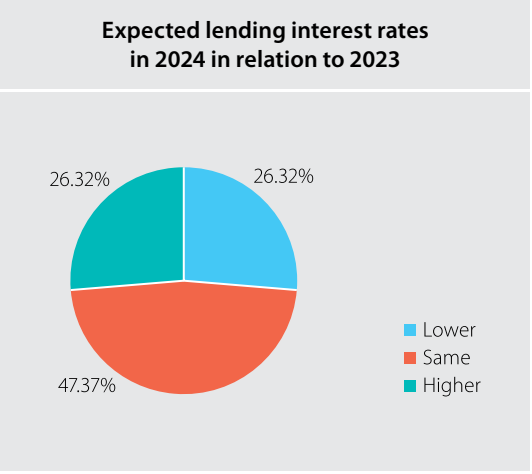
With regard to the lending interest rates, 47.37% of the respondents expect unchanged levels, and by 26.32% each expect them to increase and to decline in the current year relative to 2023 (graph 19).

Graph 18



Source: Central Bank Survey

Graph 19

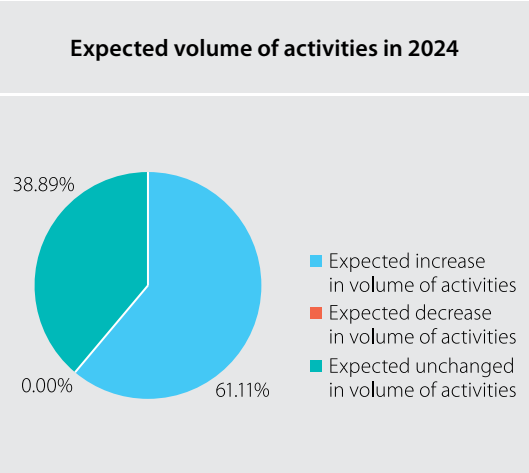


Source: Central Bank Survey

Investments

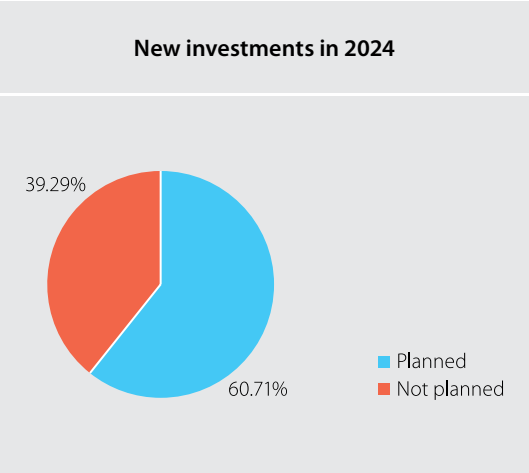
Out of the total number of companies surveyed, 61.11% of them plan to increase the volume of their activities by the end of 2024, while 38.89% of the respondents expect a reduced volume of activities (graph 20). The majority of those surveyed (60.71%) plan new investments (graph 21), where most of the investments (33.80%) will be used to increase their fixed assets (graph 22). The surveyed entities highlighted insufficient exploitation of the existing capacities, high interest rates and unfavourable conditions for capital borrowing and other barriers as the main barriers to new investments (graph 23).

Graph 20



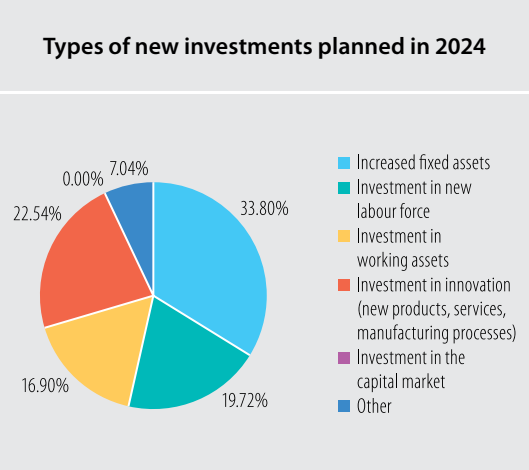
Source: Central Bank Survey

Graph 21



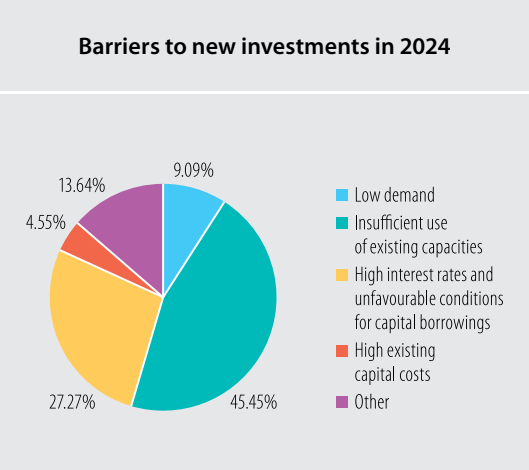
Source: Central Bank Survey

Graph 22



Source: Central Bank Survey

Graph 23



Source: Central Bank Survey

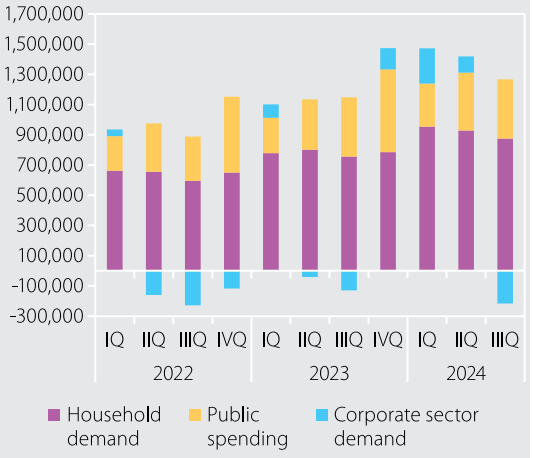
3. INFLATION DETERMINANTS

3.1. Demand

According to preliminary data, aggregate demand recorded quarterly decline but also a year-on-year increase in the third quarter of 2024. Observing the structure of total demand in the reporting period, the share of retail demand and public spending increased compared to the previous quarter, while wholesale demand declined (graph 24).

Graph 24

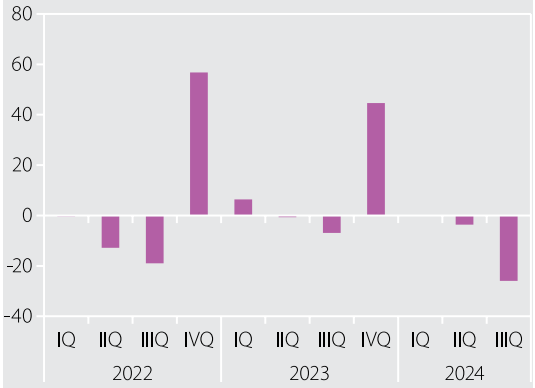
Aggregate demand in Montenegro, in thousand euros



Source: Central Bank calculations

Graph 25

Aggregate demand in Montenegro, quarterly change, in %



Source: Central Bank calculations

Box 1 – Aggregate demand calculation methodology

For the purpose of a more complete monitoring of aggregate demand as a determinant of inflation, the Central Bank has developed the aggregate demand calculation methodology. The starting point of this methodology states that the aggregate demand represents the sum of the demand of three sectors: personal spending (households), investment spending (corporate sector), and public spending. However, taking into account the lack of numerous data necessary for calculating the aggregate demand, the existing data should not be treated as the indicator of the exact amount of aggregate

demand, but as an indicator showing the aggregate demand trend. In the existing methodology, a number of substantial data were not available, such as: corporate investments, revenues from share sales, non-market income, non-observed economy revenues, and the like. Methodology of aggregate demand calculation is expressed by the following equation:

$$AD = C + I + G$$

C = sum of paid salaries + sum of paid pensions + paid frozen foreign currency deposits + net compensations to households – net household savings (savings – loans granted)

I = – net savings of economy (deposits – loans)

G = public spending – paid pensions – salaries paid from the budget – net Government savings (deposits – loans – Treasury bills)

AD – aggregate demand, C – personal spending, I – investment spending, G – public spending

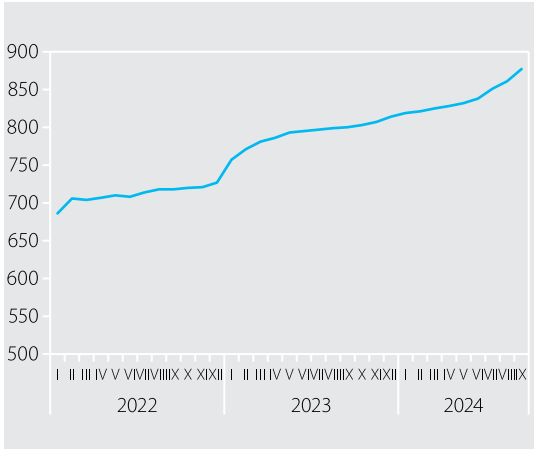
3.1.1. Earnings and other available demand determinants

In Q3 2024, average gross earnings in Montenegro amounted to 1,083 euros, while average earnings without taxes and contributions amounted to 863 euros. In relation to the previous quarter, the average gross and net earnings rose by 3.84% and 3.60%, respectively. Compared to Q3 2023, average earnings and average earnings without taxes and contributions rose by 8.84% and 8.01%, respectively.

If we take into account consumer prices, i.e. earnings trend observed in real terms, it is concluded that real earnings increased in all three months of the reporting quarter.

Graph 26

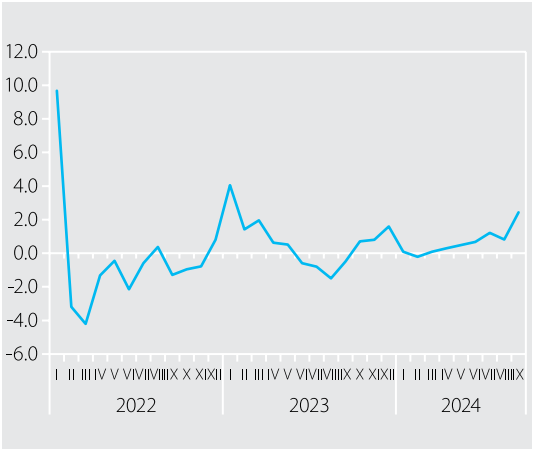
Average earnings without taxes and contributions in Montenegro, in euros



Source: MONSTAT

Graph 27

Monthly change in real gross earnings in Montenegro, in %

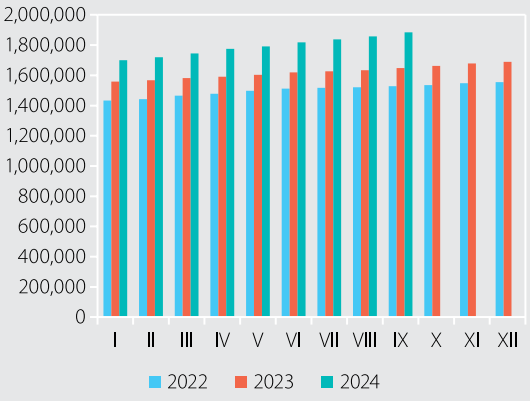


Source: MONSTAT

Retail loans[11] recorded a positive trend during the first nine months of 2024. Loans to this sector grew at a monthly average rate of 1.22% during the reporting period, as compared to 0.65% in the comparative period of the previous year.

Graph 28

Retail loans, in thousand euros, January 2022 - September 2024, end-month balance



Source: CBCG calculations

At end-September 2024, retail loans amounted to 1,884.42 million euros, which is 235.90 million euros or 14.31% more than in same month last year and 194.57 million euros or 11.51% more than in December 2023 (graph 28).

Debt *per capita*[12] amounted to 3,021.69 euros at the end of the reporting period, recording an increase of 378.27 euros or 14.31% year-on-year and 312.00 euros or 11.51% increase in relation to end-2023.

At end-September this year, total MFI loans granted to the retail sector amounted to 80.63 million euros, which is 10.23 million euros or 14.53% more than in same period of the previous year, and 7.84 million euros or 10.77% more than at end-2023.

At the same time, retail deposits amounted to 2,044.27 million euros, being 222.21 million euros or 12.20% higher than at end-September last year and 143.43 million euros or 7.55% higher than at end-2023.

The loans to deposits ratio of the non-financial sector was 0.92 at end-September this year and it increased year-on-year when it was 0.90 and compared to the end of the previous year when it stood at 0.89.

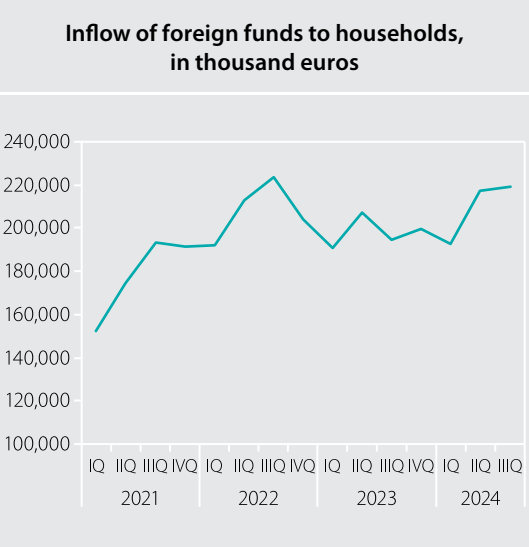
At the end-September 2024, the retail sector had a net savings of 159.84 million euros, which represents the year-on-year decline when the retail sector net savings amounted to 173.54 million euros. At end-December 2023, the retail sector recorded net savings in the amount of 210.99 million euros.

In the period January - September 2024, the balance of payments statistics recorded increase in the inflow of funds based on employee compensation, other current transfers and personal transfers from abroad compared to the same period in 2023 (graph 29).

[11] The retail sector includes resident natural persons and entrepreneurs.

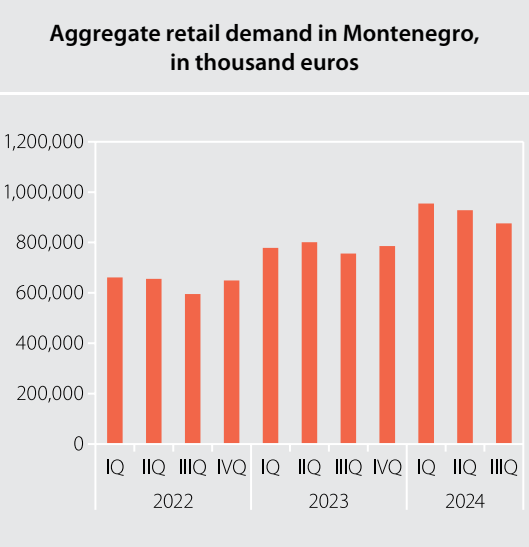
[12] According to the official *Census* 2023 results, the population is 623,633. Source: MONSTAT.

Graph 29



Source: Central Bank

Graph 30



Source: Central Bank calculations

The comparison of the total retail sector demand by quarters shows that it was lower in Q3 this year than in the previous quarter but higher than in Q3 2023 (graph 30).

3.1.2. Budget analysis

Budget of Montenegro

According to the Ministry of Finance preliminary data, total revenues[13] of the Budget of Montenegro amounted to 2.80 billion euros in the first nine months of 2024.

Source revenues of the Budget amounted to 2,075.60 million euros or 27.99% of the projected GDP[14] and they were 1.35% higher than planned[15] for Q3 2024 and 9.03% higher year-over-year, which is the result of greater collection of excise duties, recorded results of business entities in the previous year, as well as VAT refund dynamics which have been accelerated by the Tax Administration since the beginning of the year, taking into account the accumulated amounts of refund requests from the previous period. In the structure of current revenues, tax revenues accounted for the main share of 72.17%, followed by contributions with 20.73%, other revenues with 3.57%, duties with 1.82%, donations with 1.13%, and fees with 0.58%.

Tax revenues amounted to 1,498.04 million euros, recording a 0.74% increase relative to the plan and a 18.36% increase year-on-year. All tax revenues increased at the annual level, with the highest being recorded with VAT revenues of 111.57 million euros.

[13] Revenues include current revenues (direct and indirect taxes and non-tax revenues), borrowings and loans from domestic and foreign sources, as well as revenues from property sale and receipts from loan repayment.

[14] Source: Ministry of Finance; estimated GDP for 2024 amounts to 7,416.70 million euros.

[15] Pursuant to the Law Amending the Law on Budget for 2024, adopted in September 2024.

Revenues arising from contributions amounted to 430.17 million euros or 1.71% more than planned and 10.94% more than in the comparative quarter in 2023.

Consolidated budget expenditure amounted to 1,989.03 million euros or 26.82% of GDP in the first nine months of the current year. Recorded expenditures were 4.35% lower than planned but also 15.17% higher year-on-year.

Current budget expenditures amounted to 790.67 million euros and they were 6.70% lower in relation to the plan and 7.72% higher year-on-year. The largest decrease compared to the plan was recorded in expenditures for material and services (17.81 million euros or 21.19%), while the increase compared to the same period of the previous year was recorded due to the growth of gross salaries and contributions paid by employer (30.48 million euros or 6.44%) due to the increase in salaries of the public sector employees in 2023.

Capital expenditures amounted to 137.15 million euros or 1.85% of GDP. Compared to the plan, they were 2.65% lower, while compared to the same period of the previous year, capital expenditures were 20.56% higher due to greater dynamic of capital investments.

In the first nine months of 2024, *cash surplus* of the Budget of Montenegro is estimated at 86.57 million euros or 1.17% of GDP.

3.1.3. Non-financial sector

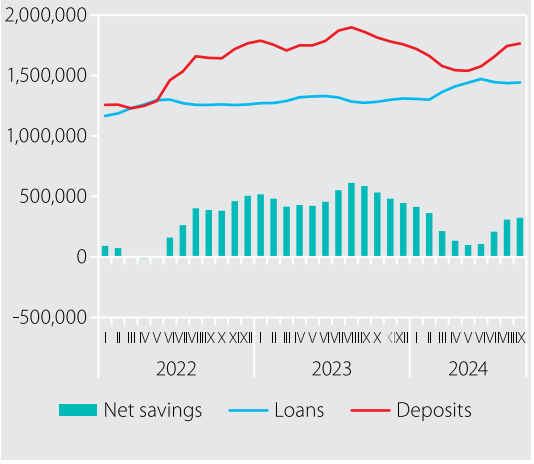
Lending to the non-financial sector[16] recorded positive trends in the first nine months of the current year. Loans to this sector grew at a monthly average rate of 1.08% during the reporting period, while they recorded the average monthly growth of 0.12% during the same period of the previous year.

At end-September 2024, total loans extended to the non-financial sector amounted to 1,441.61 million euros, which is 166.85 million euros or 13.09% more year-on-year and 130.99 million euros or 9.99% more compared to end-2023.

Long-term loans accounted for the main share in the structure of loans to the sector with 83.91%, which indicates that loans to the corporate sector were mainly used for increasing the volume of economic activity focusing on investments.

Graph 31

Net savings/indebtedness of the non-financial sector, in thousand euros, January 2022 - September 2024, end-month balance



Source: CBCG calculations

[16] The non-financial sector includes state companies and private companies.

Deposits of the non-financial sector amounted to 1,764.82 million euros at end-September this year, recording a decrease of 96.12 million euros or 5.16% year-over-year, and they grew by 7.74 million euros or 0.44% compared to December 2023.

The loans to deposits ratio of the non-financial sector was 0.82 at end-September this year and it increased year-on-year when it was 0.69 and compared to the end of the previous year when it stood at 0.75.

Due to the lack of data on the non-financial sector investments, we can use the sector's net savings/indebtedness as an approximation.

At end-September this year, net savings of the non-financial sector amounted to 323.22 million euros, which is 262.97 million euros less than in the comparative period of the previous year and compared to end-2023 when it amounted to 446.47 million euros (graph 31).

3.1.4. External demand and the current account

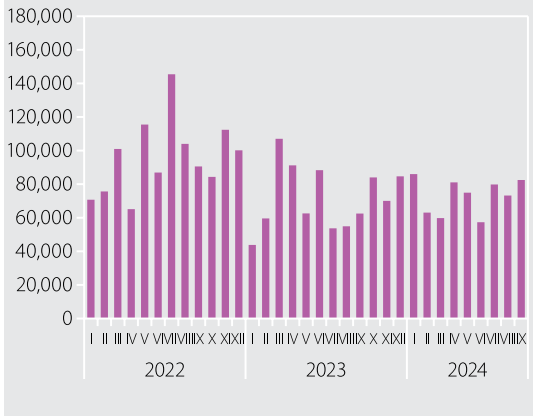
Preliminary data shows that the current account deficit amounted to 776.86 million euros in the first nine months of 2024, which is the year-on-year increase of 115.79%. This decline is a result of an increase in surpluses on the goods account the decrease of surplus on services account, while the primary income account recorded deficit.

The goods account recorded a deficit of 2,494.19 million euros or 11.82% more than in the comparative period last year. Total visible exports amounted to 463.74 million euros, recording a decrease of 16.79%, whereas total visible imports amounted to 2,957.93 million euros, being 6.10% higher year-on-year. The services account recorded a surplus of 1,416.12 million euros, which is 3.84% less than in the same period last year. The primary income account registered a deficit of 17.02 million euros, while it recorded a surplus on this account in the comparable year-over-year period, mostly due to increased expenses from paid dividends. The secondary income account ran a surplus of 318.24 million euros, which is the year-on-year increase of 1.18%.

Preliminary data suggests that net foreign direct investments (FDI) inflow for the period January-September 2024 amounted to 372.57 million euros, which is the year-on-year growth of 18.76%. Total FDI inflow stood at 657.67 million euros, recording an increase of 5.46% (graph 32). Equity investments amounted to 420.28 million euros (a 3.87% increase), while the inflow in the form of intercompany debt added up to 216.39 million euros or 14.25% more year-on-year. In the structure of equity investments, investments

Graph 32

Monthly inflow of total FDI in the balance of payments of Montenegro, in thousand euros



Source: CBCG

in companies and banks amounted to 100.05 million euros (a 44.02% growth), while real estate investments reached 320.23 million euros (a 4.46% decrease). The inflow arising from the withdrawal of funds invested abroad amounted to 21 million euros. In the structure of total FDI inflow, the share of real estate investments amounted to 48.69%, followed by intercompany debt with 32.90%, while 15.21% were investments in companies and banks. Total FDI outflow in the period January - September this year amounted to 285.10 million euros, which is an 8% decline year-over-year. In the outflow structure, outflow from residents' investments abroad amounted to 70.99 million euros, while withdrawals of non-residents' funds invested in Montenegro amounted to 214.11 million euros.

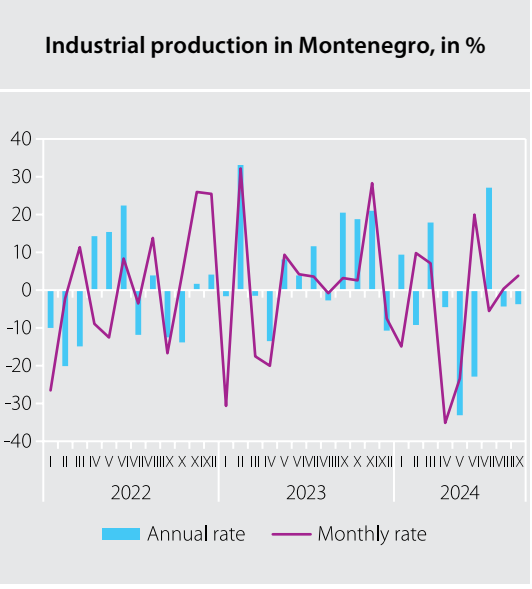
In the period January-September 2024, portfolio investments account recorded net inflow of 406.60 million euros, while the net inflow in the other investments account amounted to 197.10 million euros.

3.2. Supply and production

In the first nine months of 2024, industrial output recorded the year-over-year decline of 6.0% due to output drop of 20.5% in the *electricity, gas and steam supply* sector. At the same time, *manufacturing industry* and *mining and quarrying* sector recorded respective growths of 4.2% and 8.1%. Observing monthly data on industrial output (graph 33), the severest monthly decline was recorded in April (-35.1%), while the highest increase was recorded in July (27.1%).

MONSTAT preliminary data shows that a total of 2.30 million tourists visited Montenegro in the first nine months of the current year, which is 1.06% less year-over-year and 3.02% less than in the same period in the pre-crisis year 2019. Tourist overnights reached 13.85 million, which is the year-over-year decrease of 5.28%. Of the total number of these overnights, domestic tourists accounted for 514,215 showing a decrease of 0.60%, while foreign tourists recorded 13.34 million overnights or 5.46% less. In comparison with the same period in 2019, the total number of overnights was 3.85% higher, whereby the number of domestic tourist overnights and foreign tourist overnights rose by 16.51% and 3.41%, respectively.

Graph 33



Source: MONSTAT

In the first nine months of 2024, as per MONSTAT data, a total of 112,041 m³ of **forest assortments from state forests**[17] was produced, which is 53.8%[18] less than in the comparative period last year.

[17] The total 2024 production of forest assortments (from state and private forests) is to be published by MONSTAT at end-2025.

[18] Presented through weighted index.

According to preliminary MONSTAT data, the total *value of executed* **construction works** amounted to 471.52 million euros in the reporting period recording y-o-y growth of 2.43%, whereas measured by the *effective working hours at construction sites*, it increased by 1.47%.

Preliminary MONSTAT data also indicate that the results in **transport** showed positive trends in the majority of its segments. Railway transport saw a 3.54%[19] increase in the number of transported passengers, while freight transport via railways dropped by 6.76%[20]. At the same time, road transport saw an 8.87%[21] increase year-on-year in the number of passengers, while freight transport via railways increased 6.41%[22]. Air transport saw a 16.48% growth in passenger traffic at airports, and cargo traffic at airports increased by 13.17%. Total turnover of goods in ports amounted to 1.87 million tonnes, being 10.87% higher year-over-year. Of this amount, exports accounted for 61.09% and imports for the remaining 38.91%. The export of goods from Montenegrin ports rose in this period by 22.05%, while the import of goods in tonnes declined by 3.06%.

3.3. Stock exchange indices

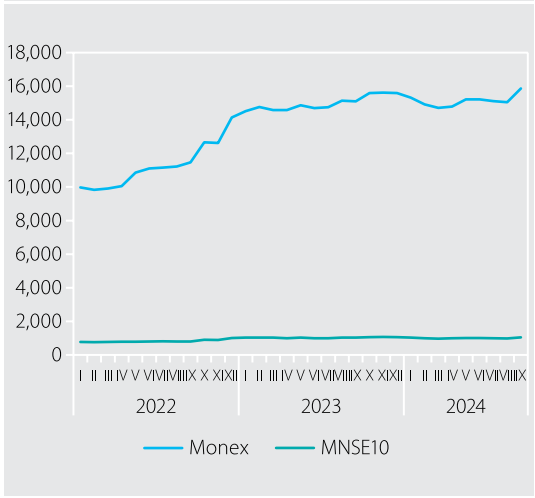
At end-September 2024, the MONEX[23] and MNSE10[24] indices rose compared to the same period last year as well as compared to end-2023. Compared year-over-year, the MNSE10 index declined, while Monex index grew (graph 34).

At end-September 2024, the SE index MONEX reached 15,868.13, recording a growth of 765.87 index points or 5.07% year-on-year, while compared to the end of the previous year it recorded a growth of 285.00 index points or 1.83%.

At end-September 2024, the SE index MONEX reached 1,049.84, recording a growth of 15.27 index points or 1.48% year-on-year, while compared to the end of the previous year it recorded a decline of 13.48 index points or 1.27%.

Graph 34

Movement of Montenegro Stock Exchange indices, in index points, January 2022 - September 2024, end-month balance



Source: Montenegro Stock Exchange calculations

[19] Presented in the number of passengers transported in thousands, while presented in passenger kilometres, it rose 5.23%.

[20] Presented in transported goods in thousand tonnes, while presented in ton-kilometres, it declined by 14.21%.

[21] Presented in the number of passengers, while presented in passenger-kilometres, it increased by 11.48%.

[22] Presented in transported goods in thousand tonnes, while presented in ton-kilometres, it declined 0.52%.

[23] MONEX is a general (*benchmark*) index of the Montenegro Stock Exchange with the aim of describing as precisely as possible the trend of share prices on the Stock Exchange and Free Market of "Montenegro Stock Exchange" AD Podgorica. With the new Methodology, the MONEX index, as the successor of the MONEX20 index, contains more companies in its index basket.

[24] MNSE10 represents a leading (*blue-chip*) index of the Montenegro SE, aimed at precisely describing developments of prices of shares at the Stock Exchange and Free market of "Montenegro Stock Exchange" AD Podgorica. It includes ten best companies from the Montenegrin market.

4. MONETARY POLICY

The Decision amending the Decision on Bank Reserve Requirement at the Central Bank of Montenegro (OGM 78/24) was adopted in Q3 2024. It stipulates that the Central Bank shall pay monthly remuneration to credit institutions until the eighth calendar day in the current month for the previous month, on 50% of their reserve requirements that is to be calculated at the 0 (zero) rate.

5. INFLATION FORECAST FOR ONE QUARTER OF 2024 AND THE FIRST THREE QUARTERS OF 2025

5.1. Model assessment

Montenegro's inflation fan chart is a graphic representation of inflation forecast probability distribution presented by the consumer price index. In that respect, instead of determining specific points, the fan chart also takes into account potential risks and uncertainties through probability distribution that might influence the inflation trend in the following period. The fan chart is aimed at considering uncertainties in the real economy, which consequently reflect on the inflation rate movements (increase in energy prices, increase/decrease in foreign trade deficit, and the like).

Montenegro's fan chart for the last quarter of 2024 and the first three quarters of 2025 is based on three estimated constituent parts:

1. **Central projection value** – the value of the fan chart central projection derived from the ARIMA model.
2. **Degree of uncertainty** – determines the Fan Chart width. The uncertainty degree ratios are obtained through analytical assessment and calculation of the relative impact of potential internal and external shocks that are possible in the Montenegrin economy over the one-year period and which are reflected through the "thickness" of the band around the central projection.
3. **Fan chart skewedness** – based on the level of skewedness of the distribution of inflation projection, the fan chart is adjusted to the forecast to show whether the values of the central projections have overestimated or underestimated inflation rates. The position of the mean value of inflation distribution will also depend on this.

Central projection of fan chart - ARIMA model for the last quarter of 2024 and the first three quarters of 2025

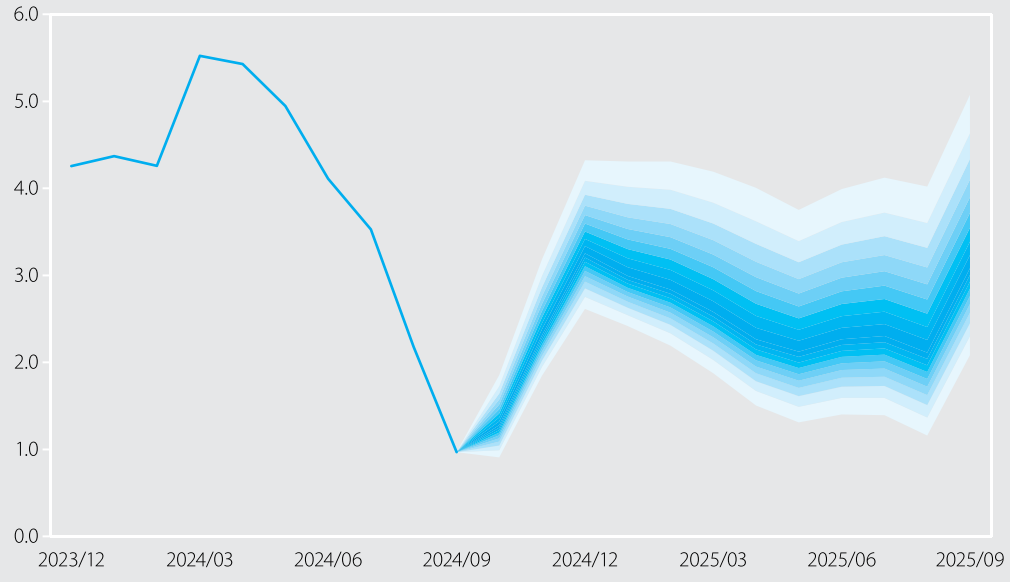
With a view to developing a fan chart, an ARIMA (Autoregressive Integrated Moving Average) model of time series of inflation of Montenegro presented via the Consumer Price Index[25] was developed.

The ARIMA model was used for short term forecasts (12 months), whereby iteration of several ARIMA models was made, which were ranked based on their efficiency and diagnostics quality. The selected ARIMA model, ARIMA (6,1,5)[26] has sufficient confidence level for forecasts.

The monthly forecasts value was used as the value of central projection of the CPI graph for Q4 2024 and the first three quarters of 2025. Obtained values represent the distribution mode, i.e. values with the highest frequency in the distribution of this time series.

Graph 35

Montenegro's CPI projections for the last quarter of 2024 and the first three quarters of 2025



Source: CBCG, 2024

[25] A detailed explanation of the ARIMA model of Montenegro was presented in the working study of the Central Bank no. 11 "Inflation forecasting: Empirical research on the retail price index trend of Montenegro for 2007 - applying the ARIMA model."

[26] The ARIMA model is generally referred to as an ARIMA (p, d, q) where p represents the number of autoregressive variables, d refers to the level of dependent variable that needs to be made stationary, and q is the number of variables, moving averages, in the certain model.

The mean value of inflation (central projection) of the received model (2024M10 – 2025M09) is 2.5%. The value of the coefficient of asymmetry varies between 0.7 and 1.6, and the relative standard deviation is 0.25. The Fan Chart explains a 90% probability of inflation distribution. The central projection is usually in the deepest shade of the Fan Chart, i.e. in the central 10% of probability[27]. The fan chart has an equal number of bands (eight) on either side of the central band whereby every band of the same colour, both above and below the central band, cumulatively describe the next 10% of inflation trend probability. As the degree of uncertainty grows over time, so the fan chart spreads.

The fan chart of inflation in Montenegro, based on the ARIMA model assessment for the fourth quarter of 2024 and the first three quarters of 2025, indicates that there is a *90% probability that the CPI inflation will range between 0.9% and 5.1%, depending on the month, with the central projection at 2.5%.*

Table 3

Model inflation rate in Montenegro for Q4 2024 and the three quarters of 2025		
Lower inflation threshold	Central projection	Upper inflation threshold
0.9%	2.5%	5.1%

Inflation projected for December 2024 ranges between 2.6% and 4.3%, with the central projection at 3.3%. The fan chart central projection (the darkest part) represents a 10% probability span (graph 35).

Table 4

Model inflation rate in Montenegro at end-2024		
Lower inflation threshold	Central projection	Upper inflation threshold
2.6%	3.3%	4.3%

A gradual decrease in the prices of energy generating products and other raw materials on the world market occurred notably in Q3 2024 and, consequently, decreased the overall inflation. Inflation in the euro area eased slightly during 2024 due to falling energy prices and tighter monetary policies but remains above the European Central Bank's (ECB) target. External factors, such as the war in Ukraine and the conflict in the Middle East, could significantly affect inflation in Montenegro. These conflicts disrupt global supply chains, leading to shortages and higher prices of key commodities such as energy, food and raw materials, on which Montenegro is highly dependent.

Internal factors that could affect inflation are the new fiscal policy measures that will affect the growth of wages and pensions and the increase of specific tax and excise categories. These measures may cause inflationary pressures in the short term, but their impact is expected to be relatively limited. The application of these measures requires careful monitoring.

[27] Usually, mode value (central projection) is the darkest band; however, if there is a significant level of risk, then it may happen that the central projection does not include any of these values. (Britton, E, Fisher, P.G. and Whitley, J.D. (1998), 'The Inflation Report projections: Understanding the Fan Chart', Bank of England, Quarterly Bulletin, 38, pp. 30–37).

Projection is based on the following assumptions:

As in every country, various domestic and international factors influence inflation in Montenegro. When making assumptions about future inflation rates in Montenegro, we must consider historical data and current economic conditions.

- **Global commodity price stabilisation:** Global commodity prices, especially oil and food, are assumed to remain stable over the forecast period. Moderate oscillations in energy prices are expected due to the stable production of OPEC+ countries and the improvement of global supply chains. Stable prices in these key sectors will lower inflation, especially in Montenegro, where a significant part of inflationary pressure comes from imports.

- **Economic growth in the euro area:** The forecast assumes that the euro area will record moderate economic growth, essential for Montenegro due to its close trade ties with the EU. Inflation in the euro area is expected to decline gradually. In 2024, the ECB lowered interest rates three times: from 4% to 3.75% on 12 June, from 3.75% to 3.5% on 18 September, and from 3.5% to 3.25% on 23 October. The ECB states: "We can do this because inflation is falling faster than expected towards our 2% target and the economy is weaker. Our future decisions will depend on how we see the further development of the economy and inflation."

- **Wage growth:** The current inflation projection assumes that wage growth in Montenegro will be around 10% in the coming year.

- **Stable energy prices:** It is assumed that energy prices will remain stable after the fluctuations of 2023 and the beginning of 2024. Inflation in Montenegro largely depends on global energy prices due to reliance on imports. The oil price is expected to remain between $80/bbl and $100/bbl, reducing inflationary pressures in this sector. This assumption implies that the global energy market will not face significant supply disruptions.

- **Continuity of ECB monetary policy:** The ECB is expected to slightly lower interest rates in the coming period to stimulate economic growth.

- **Conflicts in the Middle East and Ukraine:** Conflicts between Israel and Hezbollah, as well as the Ukraine-Russia war, are expected to continue to create uncertainties in global markets during the forecast period. These conflicts can temporarily disrupt supply chains and cause short-term fluctuations in energy and raw materials prices, especially oil, on which Montenegro is significantly dependent. However, in line with expectations of a long-term decline in energy prices, global trends are expected to ease these pressures over the forecast period.

All the aforementioned assumptions indicate that global economic and political factors will influence inflation in Montenegro. Changes of any of the abovementioned parameters would require the forecast revision.

6. EXPECTED INFLATION IN 2024

During the first three quarters of this year, inflation was extremely low. Still, we should expect a slightly higher inflation rate by the end of the year, primarily due to the base effect, because inflation in the last quarter of the previous year was negative.

Regarding inflation expectations, most of the surveyed banks and companies expect inflation between 3% and 6%, which coincides with our inflation model projection.

It is realistic to expect global inflation to calm in the coming period, i.e., the forecast decline/stabilisation of oil and food prices will have a disinflationary impact on Montenegro. The expected growth of economic activity in Montenegro will have a similar effect. On the other hand, the expected growth of the purchasing power and the growth of specific tax and excise categories will act in the opposite direction. However, we expect inflation to be similar this year to that in the euro area.

Our model estimate for December 2024 projects inflation within the range from 2.6% to 4.3%, with the central projection at 3.3%. Our expert assessment is slightly lower and it indicates that inflation in 2024 will range between 2% and 3%, with the central projection at 2.5%.

Table 5

Expected inflation rate in Montenegro at end-2024		
Lower inflation threshold	Central projection	Upper inflation threshold
2%	2.5%	3%

The expert assessment is based on the same assumptions as the model assessment, and a deviation from any of the assumptions would require the forecast revision.