CENTRAL BANK OF MONTENEGRO

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1. INFLATION INDICATORS

The negative trend from the previous period continued in the first half of 2024. However, inflation is still above the target level in many countries. The IMF[1] July 2024 forecast indicates that the global average inflation will be 5.9% this year, while according to the ECB's[2] June forecasts, the annual average inflation rate in the euro area will be 2.5% (0.2 pp higher than cited in the March forecast), and it will further decrease to a level close to the target in 2025. The ECB reduced its reference interest rates by 0.25 pp in June but still seeks to pursue a restrictive monetary policy due to the still present inflationary pressures. The euro area annual inflation decreased to 2.5% in June, but core inflation and the growth of services prices are still above the long-term average.

Observed year-over-year, consumer prices in Montenegro were 4.8% higher on average in the first six months of 2024, while the average year-over-year price growth in June this year amounted to 4.1%. During the second quarter of the current year, consumer prices rose 0.3%, primarily owing to price increase in the categories hotels and restaurants of 5.4% and clothing and footwear of 2.8% (table 2). Looking at monthly price trends, consumer prices rose by 0.1% in each of the three months in the reporting quarter.

Table 1

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

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

Source: MONSTAT

During the second quarter of 2024, price growth was recorded in six out of twelve categories that accounted for 37.85% of the consumer basket in Montenegro (table 2). Price growth in transport of 5.4% was the main contributor to the growth of total inflation (with 0.28 pp), mostly as a result of a 12.2% price increase of accommodation services in the wake of the summer tourist season. A significant contributor (with 0.21 pp) to the price increase was also price growth in the clothing and footwear category of 2.8%, as a result of an increase in the prices of clothing of 2.8% and footwear of 2.6%.

[1] Source: IMF - *World Economic Outlook- Update*, July 2024: *The Global Economy in a Sticky Sport*, July 2024

[2] Source: ECB - *Eurosystem staff macroeconomic projections for the euro area*, June 2024

In the reporting period, price increases were also recorded in the following categories: health (0.9%), alcoholic beverages and tobacco (0.5%), recreation and culture (0.2%), and housing, water, electricity, gas and other fuels (0.1%). Price decline was seen in the categories of miscellaneous goods and services (1.2%), transport (1.0%), furnishing, household equipment and routine household maintenance (0.8%), food and non-alcoholic beverages (0.2%), and communications (0.1%), while there were no price changes in the education category during the second 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*[3]. 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[4] with the validity until end-June put a particular emphasis on domestic producers` products.

Table 2

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

	Weights	VI 2024 / III 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	100.5	0.5	0.0
Clothing and footwear	76.8	102.8	2.8	0.2
Housing, water, electricity gas and other fuels	141.5	100.1	0.1	0.0
Furnishing, household equipment and routine household maintenance	44.2	99.2	-0.8	0.0
Health	38.4	100.9	0.9	0.0
Transport	112.6	99.0	-1.0	-0.1
Communication	42.5	99.9	-0.1	0.0
Recreation and culture	30.2	100.2	0.2	0.0
Education	17.7	100.0	0.0	0.0
Restaurants and hotels	52.5	105.4	5.4	0.3
Miscellaneous goods and services	43.8	98.8	-1.2	-0.1

Source: MONSTAT and CBCG calculations

In June this year, the annual core inflation rate stood at 5.4% and it was 1.3 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

[3] Source: OGM 026/24 of 25 March 2024

[4] Source: OGM 050/24 of 30 May 2024

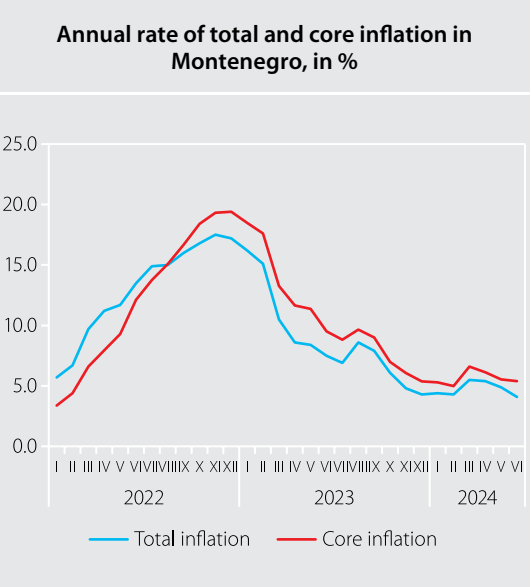
[5] It should be noted that, regardless of the index changes, the contribution of the share of certain categories is not recorded before the second and/or third decimal due to the weight structure.

[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*

not excluded from the calculation, as well as the prices of other product groups that determine core inflation on annual level. The annual core inflation was higher than the total inflation in all three months in Q2 2024 (graph 1). The largest spread between total annual and core inflation was recorded in June due to price changes of certain products that are included in the annual inflation calculation but excluded from the core inflation calculation (e.g. prices of a large number of agricultural products, electricity, tobacco, fuel and lubricants, and the like).

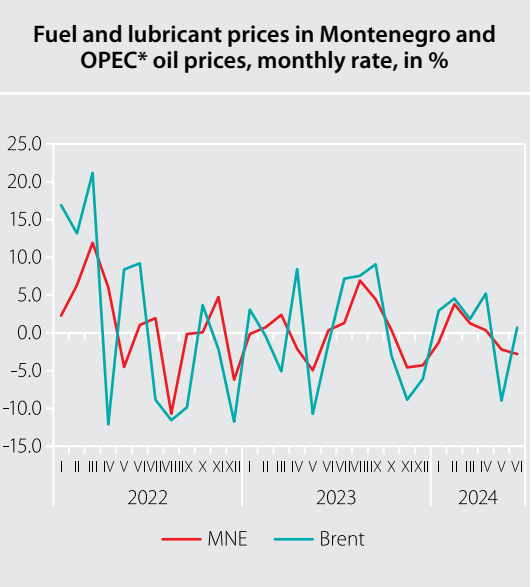
In the second quarter of this year, oil prices were somewhat higher than in the previous quarter and year-over-year. The price of the OPEC reference basket averaged at $85.31/bbl in the reporting quarter, which is 4.25% more than the average recorded in the first quarter, and 8.84% more than the average price of oil in Q2 2023. In the same period, the average price of Brent oil was $84.70/bbl, which is 1.81% more than in the previous quarter and 7.93% above the price recorded than in the second quarter of the previous year. The highest price since October 2023 of $89.89/bbl was recorded in April this year due to concerns about the escalation of the conflict in the Middle East and the decision of some OPEC+ member states to extend voluntary oil production cuts during the second quarter. According to the World Bank`s June 2024[7] report, a slight increase in the average price of crude oil is expected to range from $82.6/bbl to $84/bbl, while it is expected to fall to an average of $79/bbl in 2025. However, the report emphasizes that near-term oil price forecasts are uncertain, given the potential for price surge resulting from conflict-related supply disruptions.

Graph 1



Source: MONSTAT and CBCG calculations

Graph 2

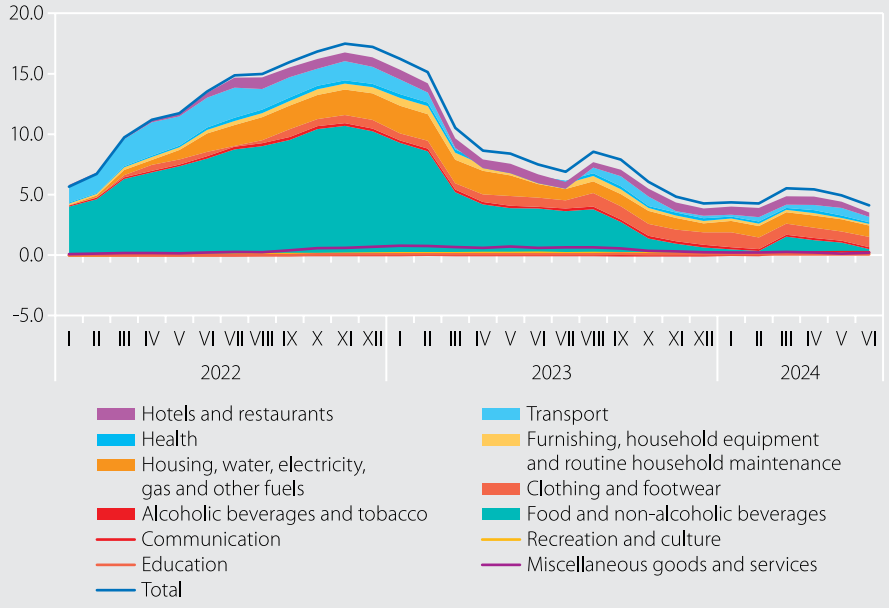


Source: MONSTAT and OPEC Monthly Oil Market Reports
(*North Sea Dated)

[7] World Bank - *Global Economic Prospects*, June 2024

Graph 3

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



Source: MONSTAT

According to MONSTAT data, the annual price growth in the food and non-alcoholic beverages category of 6.7% in June this year was the biggest contributor (with 0.92 pp) to total annual inflation growth of 4.1% (graph 3). The annual price growth was also recorded in the following categories: clothing and footwear (10.9%), restaurants and hotels (6.8%), communications (5.3%), miscellaneous goods and services (4.3%), alcoholic beverages and tobacco, health, and transport (each rising 3.9%), recreation and culture (3.5%), furnishing, household equipment and routine household maintenance and education (2.7% each), and food and non-alcoholic beverages (1.4%).

Graph 4

Annual and monthly change in consumer prices in Montenegro, in %

Source: MONSTAT

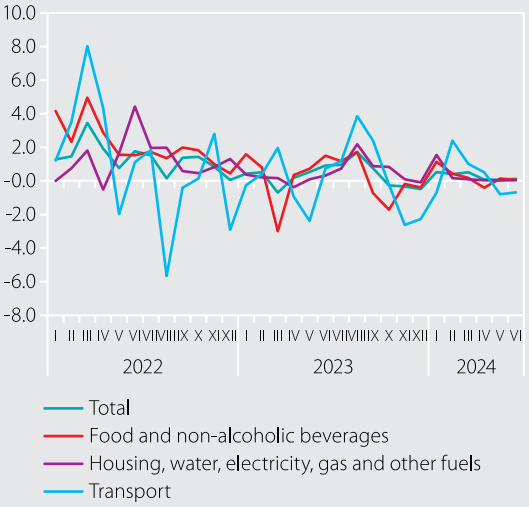
Producers` prices of manufactured products rose 1.2% in June this year compared to December 2023. Manufacturing industry and the mining and quarrying sector both recorded price increases of 1.7% and 1.6%, respectively. Prices remained unchanged in the electricity, gas and steam supply sector. In June this year, the producers` prices of manufactured products recorded the annual growth of 4.1%.

Inflation slowdown was seen in all countries in the region and many of the EU member states. In June, the highest annual rate of consumer prices among countries in the region was recorded in Serbia (3.8%), then North Macedonia (3.2%), and Albania (2.1%), and the lowest was registered in Bosnia and Herzegovina (1.6%) (graph 6).

The annual HICP[8] inflation recorded in the EU stood at 2.6% in June 2024. Of the EU member states, the highest annual inflation rates were recorded in Belgium and Romania of 5.4% and 5.3%, respectively, while the lowest rate was in Finland, 0.5%. The annual HICP inflation in the euro area amounted to 2.5% and it was 0.4 pp lower than the annual rate in December 2023, and the main contributors with 1.84 pp and 0.48 pp were the annual growth of prices of services of 4.1% and food, alcohol and tobacco of 2.4%. In its June report[9], the European Central Bank forecasted inflation in the euro area of 2.5% in 2024 and 2.2% in 2025.

Graph 5

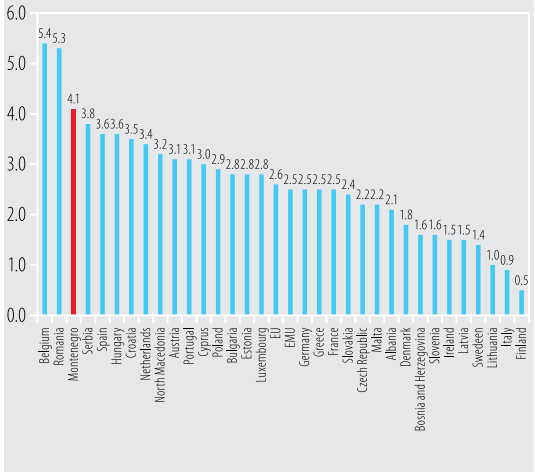
Monthly change in consumer prices under the selected categories in Montenegro, in %



Source: MONSTAT

Graph 6

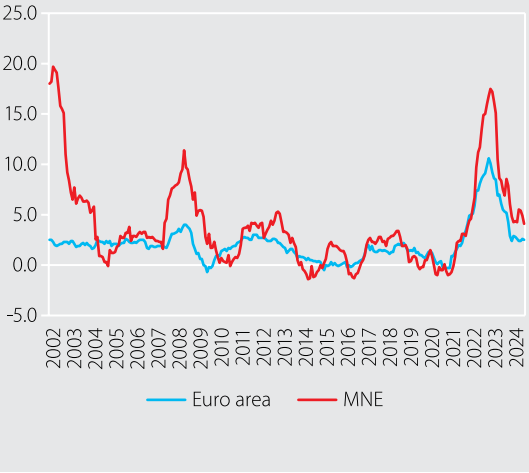
Annual inflation rate in selected countries, June 2024, in %



Source: National statistical offices and Eurostat

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

[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: ECB - *Eurosystem staff macroeconomic projections for the euro area*, June 2024

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

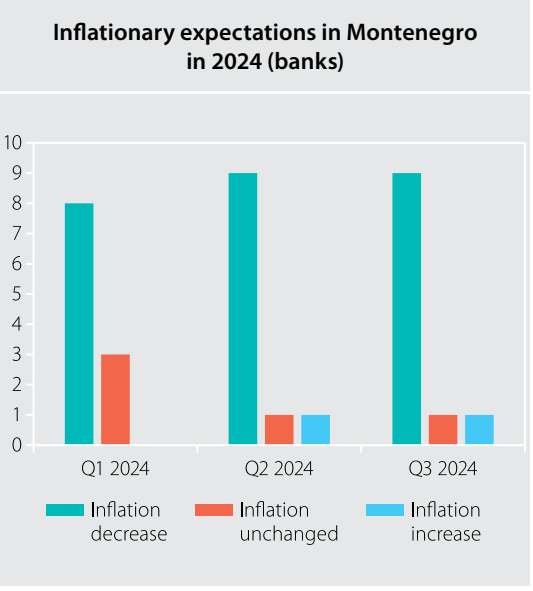
2. INFLATION EXPECTATIONS

2.1. Banks' expectations

As for inflation expectations of banks, based on the survey conducted in August this year, nine banks expect inflation to decline, while one bank expects growth and one expects the same level as in 2023 (graph 8).

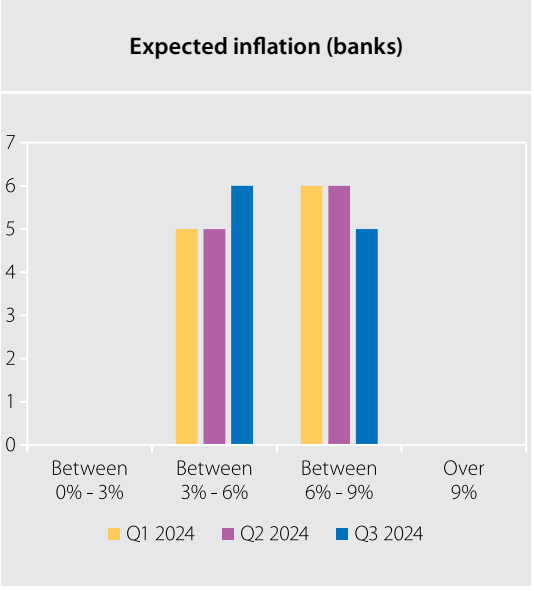
As for inflation expectations, six banks expect inflation to range between 3% and 6%, five banks believe that inflation will range between 6% and 9%, while no bank expects inflation to range between 0% and 3% and/or higher than 9% (graph 9).

Graph 8



Source: Central Bank Survey

Graph 9

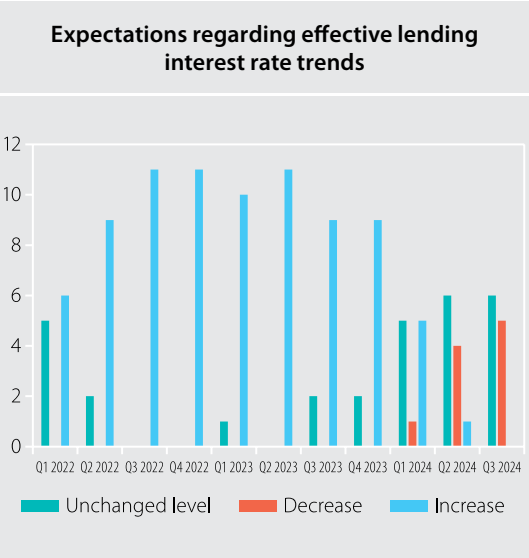


Source: Central Bank Survey

As for expectations regarding the nominal lending interest rates, five banks believe they will remain at the same levels, five banks expect them to decline, and one bank expects them to rise. When it comes to expectations of effective lending interest rates, six banks expect them to stay at the same levels as in 2023, five banks believe they will drop, but no bank expects the rates to rise (graph 10).

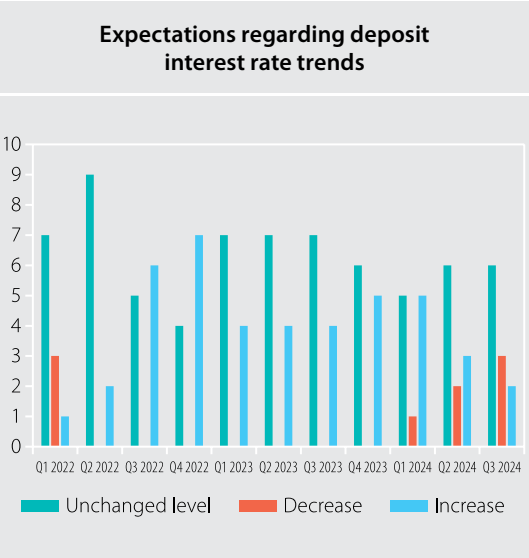
In reference to deposit interest rates` trends, six banks expect no change, three banks expect their decline, while two banks believe there will be a rise in deposit interest rates (graph 11).

Graph 10



Source: Central Bank Survey

Graph 11



Source: Central Bank Survey

For the purpose of calculating inflation forecasts, we use the market trend indicator (horizontal 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 values mean higher inflation level expectations. The surveys conducted in the first three quarters of the current year indicate a decline in banks' inflation expectations in 2024.

Graph 12

Source: Central Bank Survey

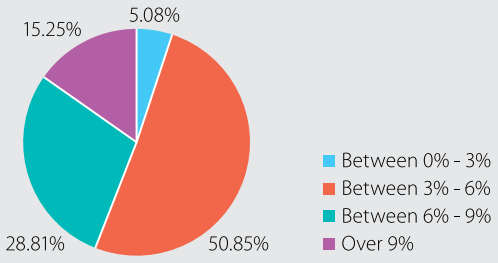
2.2. Expectations of economy (except banks)

Inflation

Of the total number of surveyed companies, 50.85% expect the inflation to range between 3% and 6% in 2024. Inflation is expected to fluctuate between 6% and 9% by 28.81% of companies, while 15.25% of companies expect inflation above 9%. Some 5.08% of the respondents believe that inflation will range between 0% and 3% (graph 13).

Graph 13

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

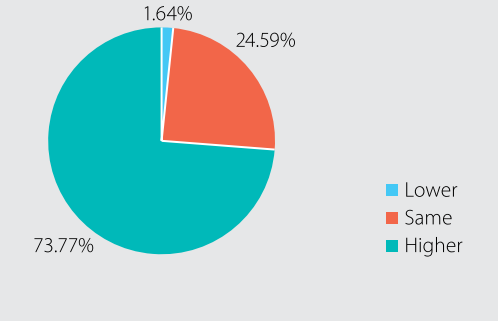


Source: Central Bank Survey

As much as 73.77% of the surveyed companies expect earnings to rise in 2024 in relation to the previous year, 24.59% of them expect no change, and the remaining 1.64% expect them to decline (graph 14). With regard to employment, 54.10% of the respondents expect it to remain the same, 42.62% expect this number to increase, and 3.28% expect it to decline in relation to the previous year (graph 15).

Graph 14

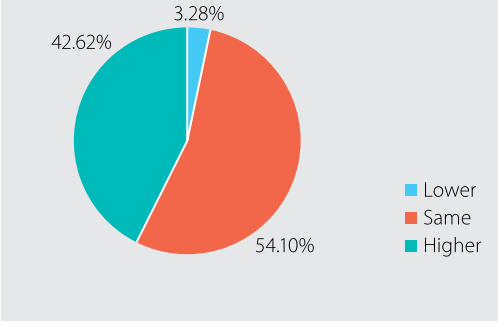
Expected earnings in 2024 in relation to 2023



Source: Central Bank Survey

Graph 15

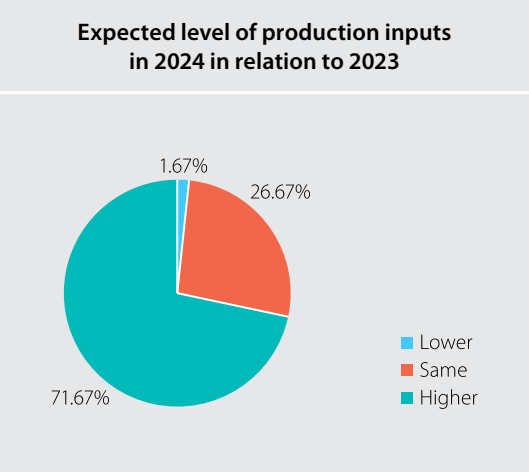
Expected number of employed persons in 2024 in relation to 2023



Source: Central Bank Survey

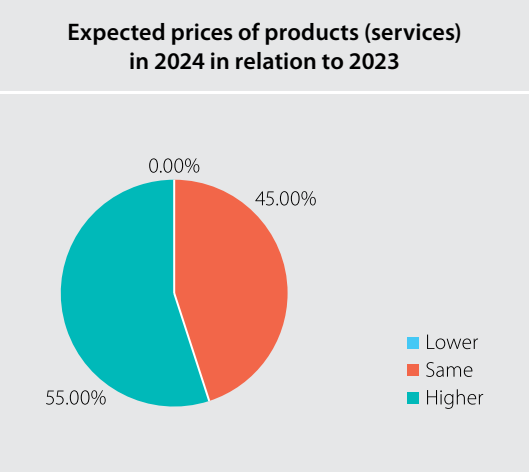
The majority of surveyed companies (71.67%) expect higher prices of production inputs they use (graph 16), and 55.0% plan to increase the prices of their products and/or services in 2024 (graph 17).

Graph 16



Source: Central Bank Survey

Graph 17



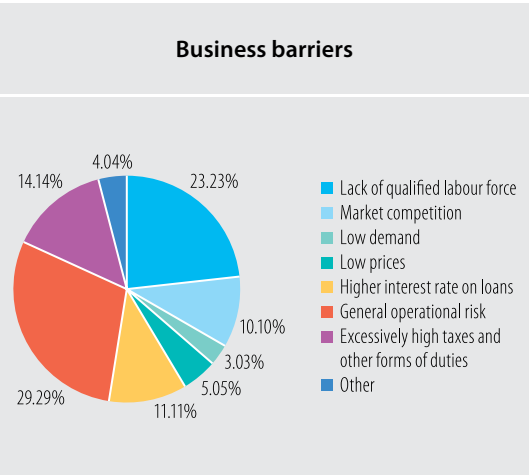
Source: Central Bank Survey

Business Environment

The survey results also show that most of the surveyed companies (29.29%) see general operational risks as the major business barriers, followed by the lack of skilled workers on the labour market (23.23%), then too high taxes and other duties (14.14%), high lending interest rates (11.11%), market competition (10.10%), low prices (5.05%), other barriers (4.04%), and poor demand (3.03%) (graph 18).

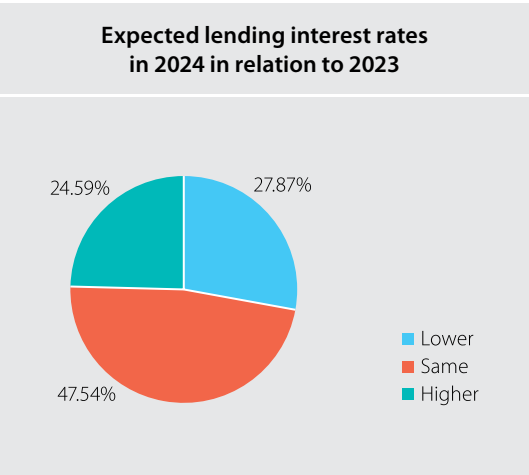
With regard to the lending interest rates, 47.54% of the respondents expect the same level as in 2023, 27.87% expect them to decline, and 24.59% expect their increase (graph 19).

Graph 18



Source: Central Bank Survey

Graph 19

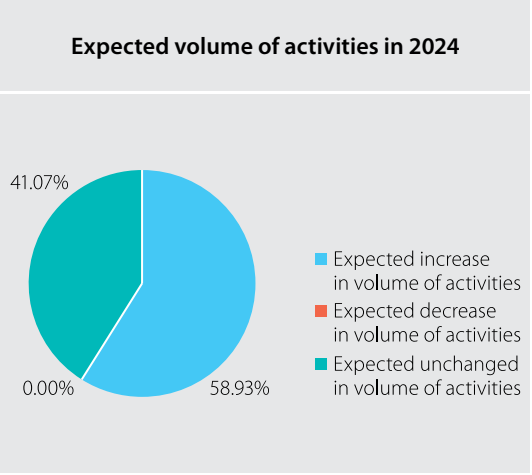


Source: Central Bank Survey

Investments

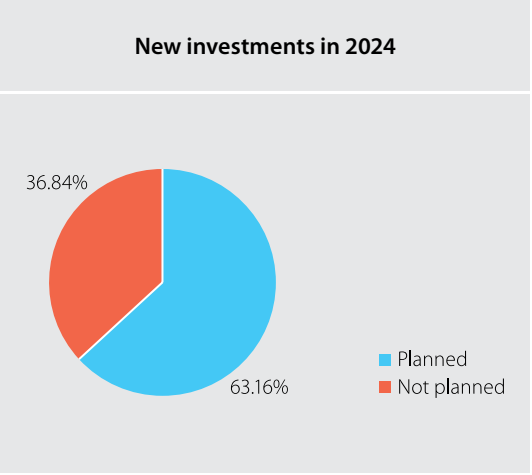
Of the total number of companies surveyed, 58.93% of them plan to increase the volume of their activities by the end of 2024, while the remaining 41.07% expect an unchanged volume of activities (graph 20). The majority of those surveyed (63.16%) plan new investments (graph 21), where most of the investments (38.71%) will be used to increase their fixed assets (graph 22). The surveyed entities highlighted insufficient use 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



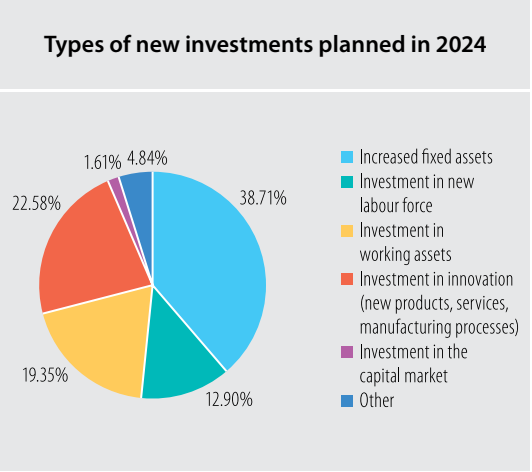
Source: Central Bank Survey

Graph 21



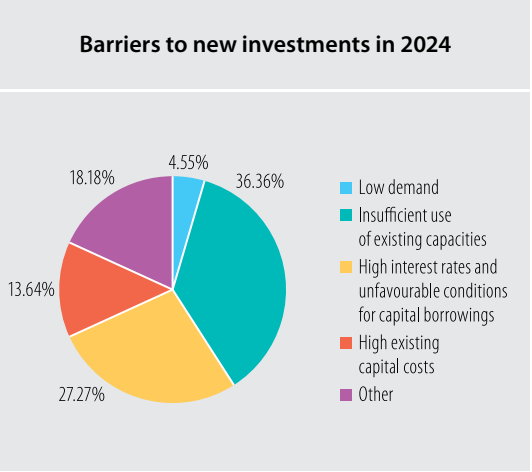
Source: Central Bank Survey

Graph 22



Source: Central Bank Survey

Graph 23



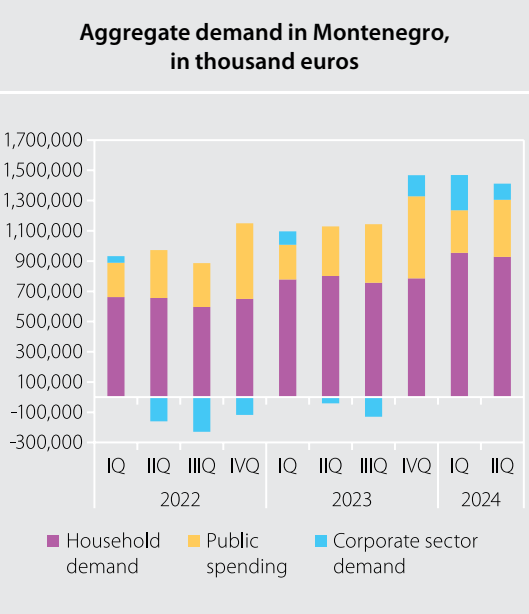
Source: Central Bank Survey

3. INFLATION DETERMINANTS

3.1. Demand

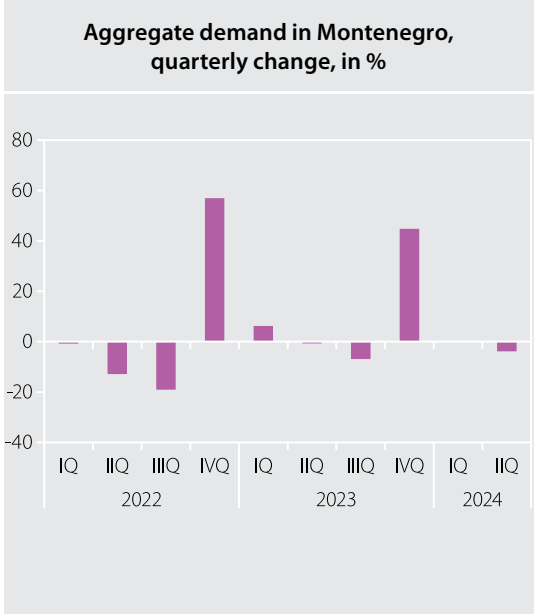
According to preliminary data, aggregate demand recorded quarterly decline in Q2 2024 but also a significant year-on-year increase. Observing the structure of total demand in the reporting period, the share of retail demand and public spending increased compared to the previous quarter, while corporate sector demand declined (graph 24).

Graph 24



Source: Central Bank calculations

Graph 25



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 is that the aggregate demand represents the sum of 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

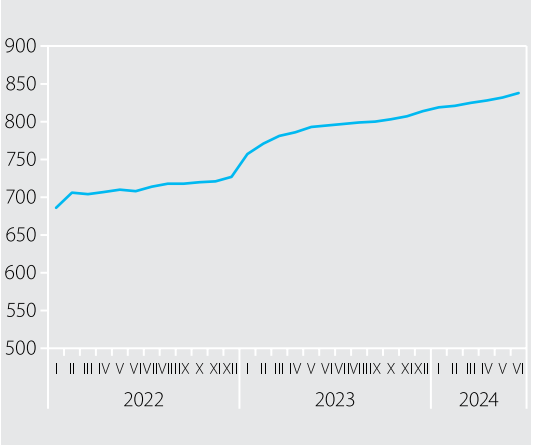
3.1.1. Earnings and other available demand determinants

In Q2 2024, an average gross earnings in Montenegro amounted to 1,043 euros, while an average earnings without taxes and contributions amounted to 833 euros. In relation to the previous quarter, the average gross earnings increased by 1.49% and net earnings rose 1.34%. Compared to Q2 2023, average earnings and average earnings without taxes and contributions rose by 5.78% and 5.22%, 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

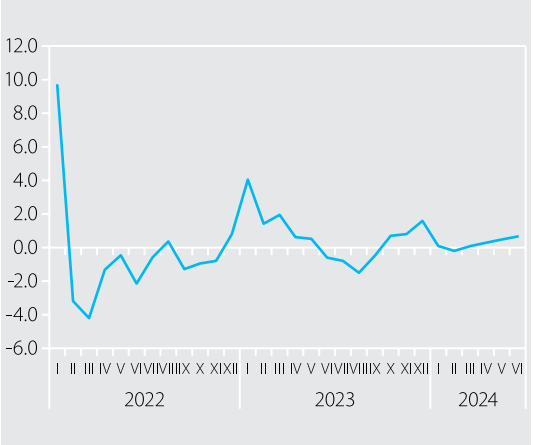
Average earnings without taxes and contributions in Montenegro, in euros



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 six months of 2024. Loans to this sector grew at the monthly average rate of 1.23% during the reporting period, as compared to 0.68% in same six-month period in 2023.

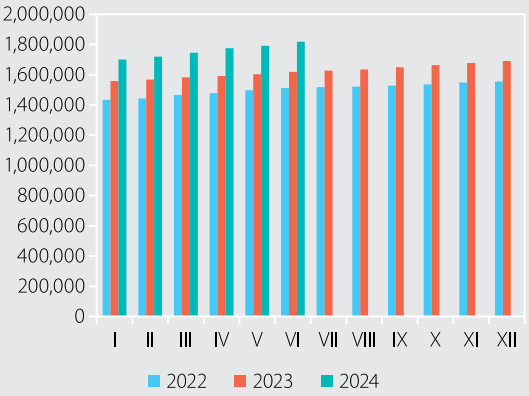
At end-June 2024, retail loans amounted to 1,818.30 million euros, which is 199.03 million euros or 12.29% more than in same month last year, and 128.45 million euros or 7.60% more than in December 2023 (graph 28).

Debt *per capita*[12] amounted to 2,871.79 euros at the end of the reporting period, recording an increase of 246.07 euros or 9.37% year-on-year and a 131.62 euros or 4.80% increase in relation to end-2023.

At end-June this year, total loans granted to the retail sector by the microcredit financial institutions (MFI) amounted to 78.45 million euros, which is 6.64 million euros or 9.25% more than in same period of the previous year, and 5.66 million euros or 7.77% more than at end-2023.

Graph 28

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



Source: CBCG calculations

At the same time, retail deposits amounted to 1,912.53 million euros, being 185.01 million euros or 10.71% higher than at end-June last year and 11.69 million euros or 0.62% higher than at end-2023.

The loans to deposits ratio of the non-financial sector was 0.95 at end-June this year and it rose year-on-year when it was 0.94 and compared to the end of the previous year when it stood at 0.89.

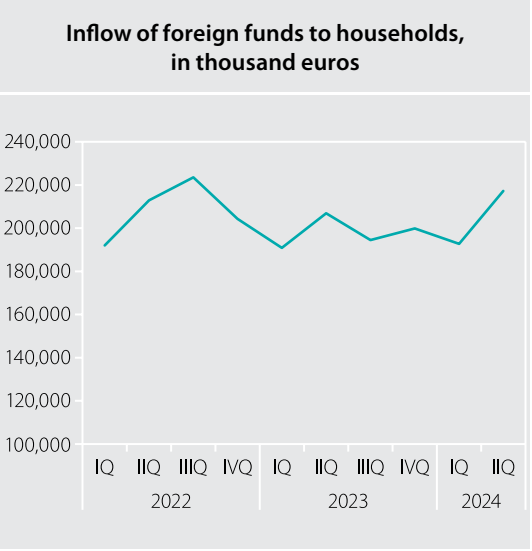
At the end-June 2024, the retail sector had a net savings of 94.23 million euros, which represents the year-on-year decline when the retail sector net savings amounted to 108.25 million euros. At end-December 2023, the retail sector recorded net savings in the amount of 210.99 million euros.

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

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

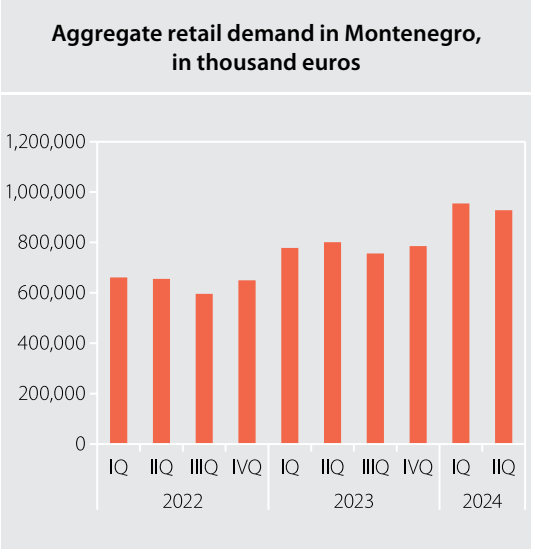
[12] According to the preliminary *Census* 2023 results, the population estimate is 633,158. Source: MONSTAT.

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 Q2 this year than in the previous quarter but higher than in Q2 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 2.02 billion euros in the first half of 2024.

Source revenues of the Budget amounted to 1,309.18 million euros or 17.98% of the projected GDP[14] and they were 6.11% higher than planned for Q2 2024 and 5.88% higher year-over-year, which is the result of greater tax discipline and good corporate results 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 73.28%, followed by contributions with 20.31%, other revenues with 3.09%, fees with 1.75%, donations with 1.05%, and duties with 0.52%.

Tax revenues amounted to 959.32 million euros, recording a 6.76% increase relative to the plan and a 19.88% increase year-on-year. All tax revenues increased at the annual level, with the highest being recorded with VAT revenues of 60.37 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 7,279.70 million euros.

Revenues arising from contributions amounted to 265.95 million euros or 4.80% more than planned and 10.17% more than in the comparative quarter in 2023.

Consolidated budget expenditure amounted to 1,278.69 million euros or 17.57% of GDP in the first half of the year. Recorded expenditures were 7.82% lower than planned but also 19.34% higher year-on-year.

Current budget expenditures amounted to 513.28 million euros and they were 9.06% lower in relation to the plan and 8.35% higher year-on-year. The largest decrease compared to the plan was recorded in other current expenditures (15.09 million euros or 35.81%), 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 (20.45 million euros or 6.50%) due to the increase in salaries of the public sector employees in 2023.

Capital expenditures amounted to 75.54 million euros or 1.04% of GDP. Compared to the plan, they were 15.17% lower, while compared to the same period of the previous year, capital expenditures were 67.16% higher due to greater dynamic of capital investments.

Cash surplus of the Budget of Montenegro is estimated at 30.49 million euros or 0.42% of GDP in the first half of 2024.

3.1.3. Non-financial sector

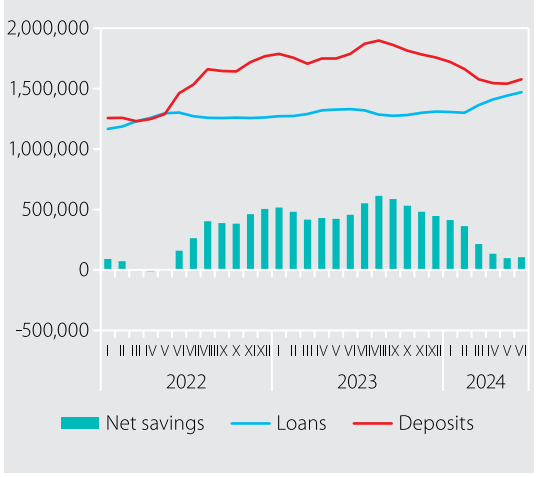
Lending to the non-financial sector[15] recorded positive trends in the first six months of the current year. Loans to this sector grew at a monthly average rate of 1.95% during the reporting period, while this average amounted to 0.88% during the same period of the previous year.

At end-June 2024, total loans extended to the non-financial sector amounted to 1,470.35 million euros, which is 140.77 million euros or 10.59% more year-on-year and 159.74 million euros or 12.19% more compared to end-2023.

Long-term loans accounted for the main share in the structure of loans to the sector with 81.76%, which indicates that loans to the corporate sector were mainly used for increasing the volume of economic activity.

Graph 31

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



Source: CBCG calculations

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

Deposits of the non-financial sector amounted to 1,576.86 million euros at end-June this year, recording a decrease of 209.54 million euros or 11.73% year-over-year, and they declined by 180.23 million euros or 10.26% compared to December 2023.

The loans to deposits ratio of the non-financial sector was 0.93 at end-June this year and it increased year-on-year when it was 0.74 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-June 2024, net savings of the non-financial sector amounted to 106.51 million euros, which is 350.31 million euros less than in the comparative period of the previous year and compared to end-2023 when it amounted to 339.96 million euros (graph 31).

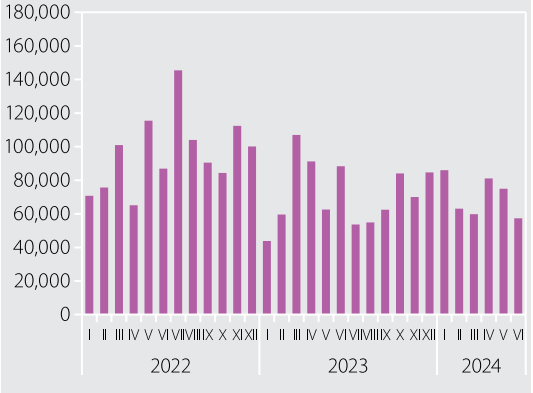
3.1.4. External demand and the current account

Preliminary data shows that the current account deficit amounted to 858.38 million euros in the period January - June 2024, which is the year-on-year increase of 55.23%. This increase is a result of an increase in deficit on the goods account and declines in surpluses on the services account, and primary and secondary income accounts.

The goods account recorded a deficit of 1,571.42 million euros or 15.06% more year-over-year. Total visible exports amounted to 305.47 million euros, recording a decrease of 25.07%, whereas total visible imports amounted to 1,876.89 million euros, being 5.83% higher year-on-year. The services account recorded a surplus of 488.17 million euros, which is 5.96% less than in the same period last year. The primary income account registered a surplus of 9.11 million euros, which is a decline of 86.45% that is primarily the result of an increase in expenditure for international investments of 65.32%. The secondary income account ran a surplus of 215.76 million euros, which is the year-on-year decrease of 4.73%.

Graph 32

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



Source: Central Bank

Preliminary data suggests that net foreign direct investments (FDI) inflow for the period January - June 2024 amounted to 245.39 million euros, which is the year-on-year decline of 4.69%. Total FDI inflow reached 422.13 million euros and it dropped by 6.71% (graph 32). Equity investments amounted to 259.83 million euros and they recorded a minor decline of 5.42%, while FDI inflow in the form of intercompany debt added up to 156.27 million euros or 4.90% more year-over-year. In the structure of equity investments, investments in companies and banks amounted to 59.89 million euros (a 15.24% increase), while real estate investments reached

199.94 million euros (a 10.24% decrease). The inflow arising from the withdrawal of funds invested abroad amounted to 6.03 million euros. Looking at the structure of total FDI inflow, the share of real estate investments amounted to 47.37%, followed by intercompany debt with 37.02%, while 14.19% were investments in companies and banks. Total FDI outflow in the period January - June this year amounted to 176.74 million euros, which is a 9.38% decline year-over-year. The outflow from residents' investments abroad amounted to 46.2 million euros, while withdrawal of non-residents' funds invested in Montenegro amounted to 134.48 million euros.

The portfolio investments account recorded a net inflow of 585.03 million euros, while the net outflow from the other investments account amounted to 188.25 million euros.

3.2. Supply and production

In the first six months of 2024, industrial output recorded the year-over-year decline of 6.7% due to output drop of 24.2% in the *electricity, gas and steam supply* sector. At the same time, *manufacturing industry* and the *mining and quarrying* sector recorded output growths of 8.3% and 10.6%, respectively. Observing monthly data on industrial output, the severest monthly decline was recorded in April (-35.1%), while the highest increase was recorded in June (20.0%) (graph 33).

MONSTAT preliminary data shows that a total of 885,186 tourists visited Montenegro in the first half of the current year, which is 0.82% more year-over-year and 17.50% more than in the same period in the pre-crisis year 2019. Tourist overnights reached 5.10 million, which is the year-over-year decrease of 6.36%. Of the total number of these overnights, domestic tourists accounted for 271,678 million showing an increase of 8.52%, while foreign tourists recorded 4.83 million overnights or 7.08% less. Compared to the same period in 2019, the total number of overnights was 47.11% higher, whereby the number of domestic tourist overnights and foreign tourist overnights rose by 33.75% and 47.95%, respectively.

Graph 33

Industrial production in Montenegro, in %

Source: MONSTAT

In the first half of 2024, as per MONSTAT data, a total of 47,850 m³ of **forest assortments from state forests**[16] was produced, which is 54.3%[17] less than in the comparative period last year.

According to preliminary MONSTAT data, the total *value of performed* **construction works** in H1 2024 amounted to 312.59 million euros, being

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

[17] Presented through weighted index.

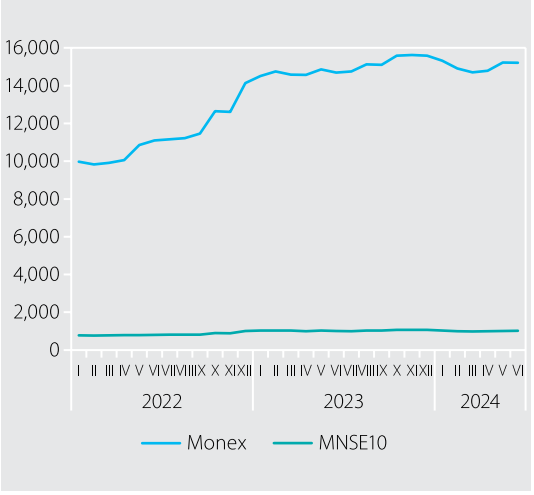
3.09% higher in relation to the comparative period of the previous year, whereas measured by *effective working hours at construction sites*, rose 0.85%.

Preliminary MONSTAT data also indicate that the results in **transport** showed positive trends in the majority of its segments. Road passenger and freight transport rose year-over-year by 6.76%[18] and 17.28%[19], respectively, as indicated by preliminary MONSTAT reports. At the same time, railway transport saw a 6.0%[20] increase in the number of transported passengers, while freight transport via railways rose by 8.32%[21]. Growth was also recorded in passenger and cargo transport at airports of 15.84% and 9.89%, respectively, while total turnover of goods in ports amounted to 11.22 million tonnes, being 20.28% higher year-over-year. Of this amount, exports accounted for 63.43% and imports made up the remaining 36.57%. The export of goods from Montenegrin ports rose in this period by 40.31%, while the import of goods in tonnes declined by 3.60%.

3.3. Stock exchange indices

Graph 34

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



Source: Montenegro Stock Exchange calculations

At end-June 2024, the MONEX[22] and MNSE10[23] indices recorded growths year-over-year. Also, both indices declined compared to end-2023 (graph 34).

At end-June 2024, the MONEX index reached 15,207.20, recording a growth of 511.49 index points or 3.48% year-on-year, while compared to the end of the previous year it recorded a decline of 375.93 index points or 2.41%.

At end-June 2024, the SE index MNSE10 reached 1,016.17, recording a growth of 14.15 index points or 1.41% year-on-year, while compared to the end of the previous year it declined by 47.15 index points or 4.43%.

[18] Presented in the number of passengers transported in thousands, while presented in passenger kilometres, it rose 7.54%.

[19] Presented in thousand tonnes, and when presented through tonne kilometres the increase was 6.0%.

[20] Presented in the number of passengers, while presented in passenger-kilometres, it increased by 8.78%.

[21] Presented in transported goods in thousand tonnes, while presented in ton-kilometres, it declined by 6.22%.

[22] 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.

[23] 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

During the first half of 2024, there were no changes to the existing monetary policy instruments nor were any new decisions passed regarding the Central Bank of Montenegro`s monetary policy instruments.

5. INFLATION FORECAST FOR THE LAST TWO QUARTERS OF 2024 AND THE FIRST TWO 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 third and fourth quarter of 2024 and the first two 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 third and fourth quarter of 2024 and the first two 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[24] was developed.

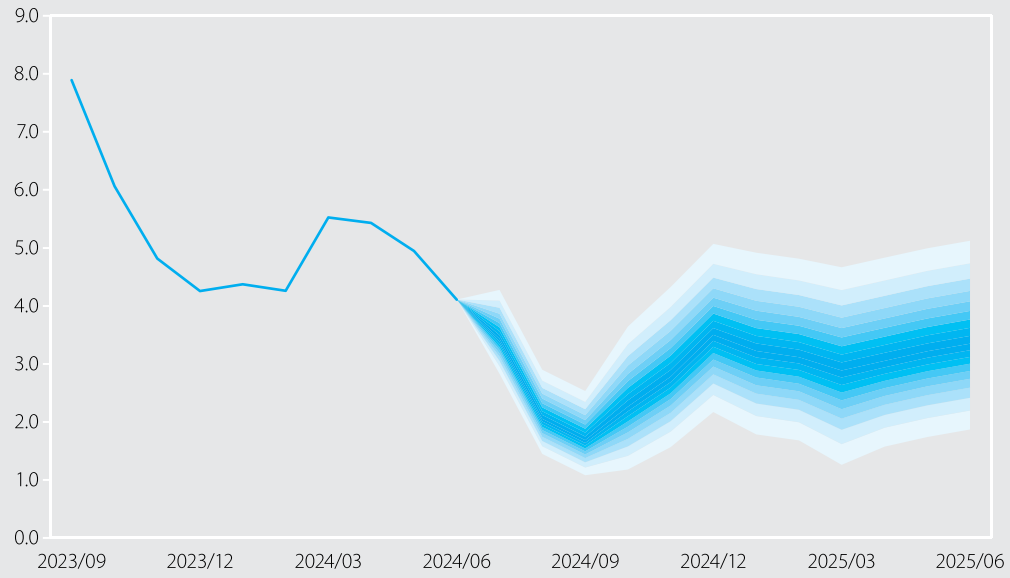
[24] A detailed explanation of the ARIMA model of Montenegro was presented in the working study of the Central Bank no. 11 "Inflation forecasting: Empirical research on the retail price index trend of Montenegro for 2007 - applying the ARIMA model."

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 (5,1,5)[25] has sufficient confidence level for forecasts.

Monthly forecast values were used as the value of central projection of the CPI graph for the third and fourth quarter of 2024 and the first and second quarter of 2025. The 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 two quarters of 2024 and the first two quarters of 2025



Source: CBCG, 2024

The mean value in two quarters and central projection of inflation in Q3 and Q4 2024 is 3.7%. The central projection points to a gradual easing of inflation: the estimates indicate a downward trend that will continue in Q3 and Q4 this year.

The value of the coefficient of asymmetry varies from 1.1 to 1.4, and the standard deviation is 0.3. The model inflation projection is located in the medium part of the distribution. The fan chart explains a 90% probability of inflation distribution. The central projection is usually in the deepest shade of the

[25] 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.

fan chart, i.e. in the central 10% of probability[26]. The fan chart has an equal number of bands (eight) on each 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 third and fourth quarter of 2024 and the first two quarters of 2025 indicates that there is a *90% probability that the CPI inflation will range between 1.1% and 5.1%, depending on the month*.

If we analyse the projected inflation for December 2024, inflation will range from 2.2% to 5.1%, with the central projection at 3.5%.

On the other hand, it appears that inflation will be stable in the first half of 2025 albeit being above the desired rate of 2%. *According to the forecasts, inflation will range from 1.3 to 5.1% in the first half of 2025, while the central projection will oscillate around 3%*.

The risks related to the projected inflation rate shown on the fan chart are set symmetrically. Risks are present due to external and internal factors. External factors include expectations of a stable to declining trend in energy and food prices, as well as inflation in the euro area. On the other hand, the fan chart also takes into account the persistence of upside risks due to the weaker spillover of lower raw material prices through global value chains to the prices in Montenegro. Although inflation in Montenegro is mainly imported due to the openness and size of the economy, there are internal risks. Internal risks include inflationary growth through higher mark-ups, especially in the food sector (the so-called *greedinflation*[27]), while the announced VAT increase is also expected to have inflationary effect. On the other hand, the implementation of new measures to limit mark-ups[28] is also expected to have a mitigating effect on inflation driven by price increases due to rising profit margins. Although energy prices have stabilised in Europe, the fan chart also takes into account a possible increase in these prices in 2025.

Projection is based on the following assumptions regarding external factors:

1. The disinflation process in the world has continued but comparing the EU inflation to that of Montenegro, we assess this downward trend to be more obvious in the EU than in Montenegro. Price growth in the services sector is somewhat slower, while raw material prices remain high. On the other hand, nominal wage growth is still present and above the inflation rate in

[26] The mode value (central projection) is, by construction, is usually in the deepest band shade, but in case of a heavily unbalanced risk, the central projection may not cover either of these values. (Britton, E. Fisher, P.D. and Whitley, J.D. (1998), 'The Inflation Report projections: Understanding the Fan Chart', Bank of England, Quarterly Bulletin, 38, pp. 30–37).

[27] The term "greedinflation" refers to the so-called inflation of greed and it was invented by a young German economist named Elisabeth Weber, who pointed out the specificity of inflation caused by the energy crisis. Namely, she suggested that inflation may be driven by increases in profit-boosting mark-ups of the corporate sector *https://www.thetimes.com/business-money/economics/article/lone-voice-on-inflation-grows-louder-qrxv0qvl0*
This position was confirmed by Christine Lagarde who pointed out that monetary policy effects can be weak due to inflation driven by margin increases *https://www.theguardian.com/business/2023/may/04/european-central-bank-raises-interest-rates-inflation-eurozone*

[28] New Decision on temporary measures to limit prices of products of special importance for human life and health and the list of products; (OGM 083/24).

some developing countries, mainly driven by inflationary expectations in price formation. Central banks in some developing countries remain cautious when it comes to easing monetary policy through interest rate cuts. However, according to the IMF[29] report, falling energy prices and a less heated labour market (i.e. labour productivity) will be the prevailing factors in bringing inflation down to a desirable level by 2025, which is in line with previous IMF forecasts. Expectations are that emerging market and developing economies will face more persistent inflation.

2. The ECB[30] expects the continuation of inflation stabilisation in the euro area. Forecasts are that inflation in the euro area will be slightly above 2% in the third and fourth quarter of the current year, with some fluctuations due to the base effects. It is expected that inflation will decline to 2.2% in 2025 due to a gradual decline in nominal wage growth in the euro area but also due to the easing of labour cost pressures that have already elevated the productivity levels in the euro area economy. Also, it is expected that inflation in the euro area will be at the target 2% in Q4 2025, dropping down to 1.9% in 2026. The ECB expects profit growth through price increases by companies to also slow down (so-called "greedinflation"). Inflation in the euro area in the first seven months of this year fluctuated between 2.4% (March and April) and 2.8% (January), averaging at 2.6%. Due to the downward trend of inflation, in June this year, the ECB began easing its monetary policy by reducing the three key interest rates by 25 basis points for the first time since 2019.
3. It is expected that energy prices will not be a driver of inflation in the euro area in the coming period although there will be some upward fluctuations in 2024 due to base effects.
4. According to data from the Food and Agriculture Organization of the United Nations (FAO), food prices have continued trending downward albeit with some mild oscillations since March 2024. In June 2024, the FAO index recorded a decrease of 1.41% year-over-year, mostly due to a decrease in sugar and cereals prices by 21.6% and 9%, respectively. On the other hand, vegetable oil prices have increased significantly (13.8%) due to the growth in global demand and the possibilities of lower supplies in 2024 and 2025. Overall trends have influenced the stabilisation of food inflation in the euro area and the ECB projections are that food prices will stay on a stable trend in 2025.
5. Inflation projections have not taken into account the effects of wage growth above the long-term trend or higher tax burdens.

Changes in any of the abovementioned parameters would require the forecast revision. Finally, there are some factors that are difficult to anticipate as they primarily depend on the geopolitical situation and developments on the Russian-Ukrainian front and the Middle East.

[29] Source: *IMF World Economic Outlook Update*, July2024, *https://www.imf.org/en/Publications/WEO/Issues/2024/07/16/world-economic-outlook-update-july-2024*

[30] Source: *ECB, Macroeconomic projections*, June 2024, *https://www.ecb.europa.eu/press/projections/html/index.en.html*

6. EXPECTED INFLATION IN 2024

Most of the surveyed banks and companies expect the inflation rate between 3% and 6%. The aggregate demand recorded the quarter-on-quarter decline and the year-over-year growth in the second quarter of 2024, which suggests that domestic inflationary pressures are still present. Any significant upsurge in the aggregate demand or tax and excise duty increases in the coming period could negatively affect inflation trends. On the other hand, companies expect a growing volume of economic activity and new investments to act in the opposite direction.

A lower inflation rate in 2024 compared to the previous year is also forecasted by all relevant international financial institutions, which will largely affect a slowdown in price growth in Montenegro.

The international environment remains full of uncertainties, primarily regarding a further impact of the Russian-Ukrainian conflict and the global oil supply in the event of spread of the Middle East conflict. The ECB has initiated this process of reducing the reference interest rates and this trend is expected to continue in the next year. This is also the signal that the ECB expects inflation to trend downward in the upcoming period.

Our model estimate for December 2024 projects inflation within the range from 2.2% to 5.1%, with the central projection at 3.5%. Our expert assessment is similar to the model estimate and it indicates that inflation in 2024 will range between 2% and 4%, with the central projection at 3%.

Table 3

Estimated inflation rate		
Optimistic assessment	Realistic assessment	Pessimistic assessment
2%	3%	4%

The expert assessment is based on the identical assumptions as the model assessment. Deviation from any of the given parameters from the expected values would also require the forecast revision.