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1. INFLATION INDICATORS

In March 2015, CPI inflation in Montenegro amounted to 1.2%, recording an increase in relation to December 2014. In the observed period, the most significant price growth was recorded in the *food and non-alcoholic beverages* category, and in the *other products and services* category of 2.9% and 1.1%, respectively. Monthly observation of the price trends showed prices growth in March (1.1%) and February (0.3%), while prices declined in January (-0.2%). Average consumer price rate (in the first three months of 2015 in relation to the same period of 2014) amounted to 0.8%, with the annual prices increase of 1.6%.

Table 1

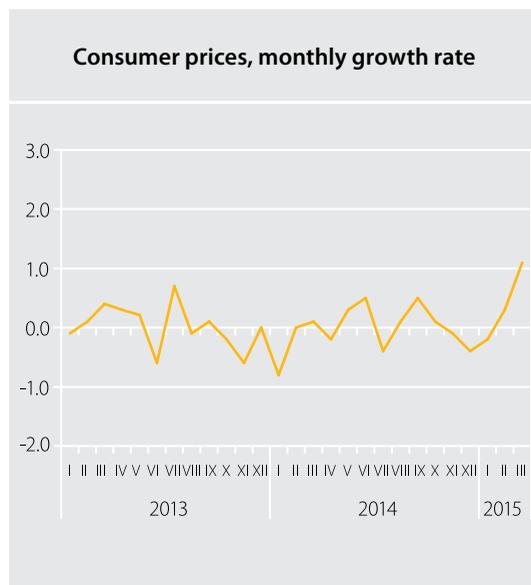
	Inflation, %				
	2014				2015
	III	VI	IX	XII	III
Change in relation to previous year end	-0.8	0.0	0.0	-0.3	1.2
Annual change	-0.9	-0.1	-0.7	-0.3	1.6

Source: Monstat

In March 2015, the prices in the *food and non-alcoholic beverages* category recorded 2.9% increase in relation to December 2014. Within this category, prices growth was recorded in the following groups: fruit (17.6%), vegetables (15.0%) meat (1.4%), other food products (1.8%), sugar, jam, honey, chocolate and confectionery products (1.4%), oil and fats (0.5%), fish (0.5%), bread and cereals (0.3%). Prices of milk, cheese and eggs declined 0.9%, while prices of non-alcoholic beverages increased 0.1%. In the observed period, prices grew in the following categories: *alcoholic beverages and tobacco* (0.6%), *housing, water, electricity gas and other fuels* (0.1%), *furnishing, household equipment and routine household maintenance* (0.4%), *health* (0.9%), *recreation and culture* (0.3%), and *other products and services* (1.1%). Prices declined in the following categories: *clothing and footwear* (-0.1%), *transport* (-0.4%), and *hotels and restaurants* (-0.4%). In March 2015, categories communications and education recorded no changes in relation to December 2014. In March 2015, annual inflation amounted to 1.6%, while the annual inflation measured by Harmonized Index of Consumer Prices (HICP) amounted to 0.9%.

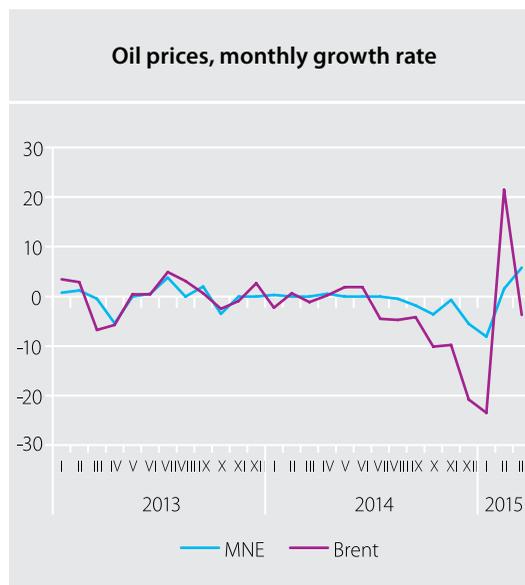
In February, and March, monthly **core** inflation was below the official monthly inflation, while in January, both rates were the same. Both core inflation and official monthly inflation rates were negative only in January.

Graph 1



Source: Monstat

Graph 2



Source: MONSTAT and „Monthly Oil Market Reports“, OPEC

Table 2

Share of individual categories in total inflation*				
	Weights	III 15/XII 14	Growth rate	Contribution
TOTAL	1000	101.2	1.2	1.2
Food and non-alcoholic beverages	386.4	102.9	2.9	1.1
Alcoholic beverages and tobacco	37.9	100.6	0.6	0.0
Clothing and footwear	70.7	99.9	-0.1	0.0
Housing, water, electricity, gas and other fuels	153.1	100.1	0.1	0.0
Furnishing, household equipment and routine household maintenance	46.9	100.4	0.4	0.0
Health	38.2	100.9	0.9	0.0
Transport	101.0	99.6	-0.4	0.0
Communications	57.1	100.0	0.0	0.0
Recreation and culture	27.2	100.3	0.3	0.0
Education	15.7	100.0	0.0	0.0
Hotels and restaurants	23.0	99.6	-0.4	0.0
Other goods and services	42.8	101.1	1.1	0.1

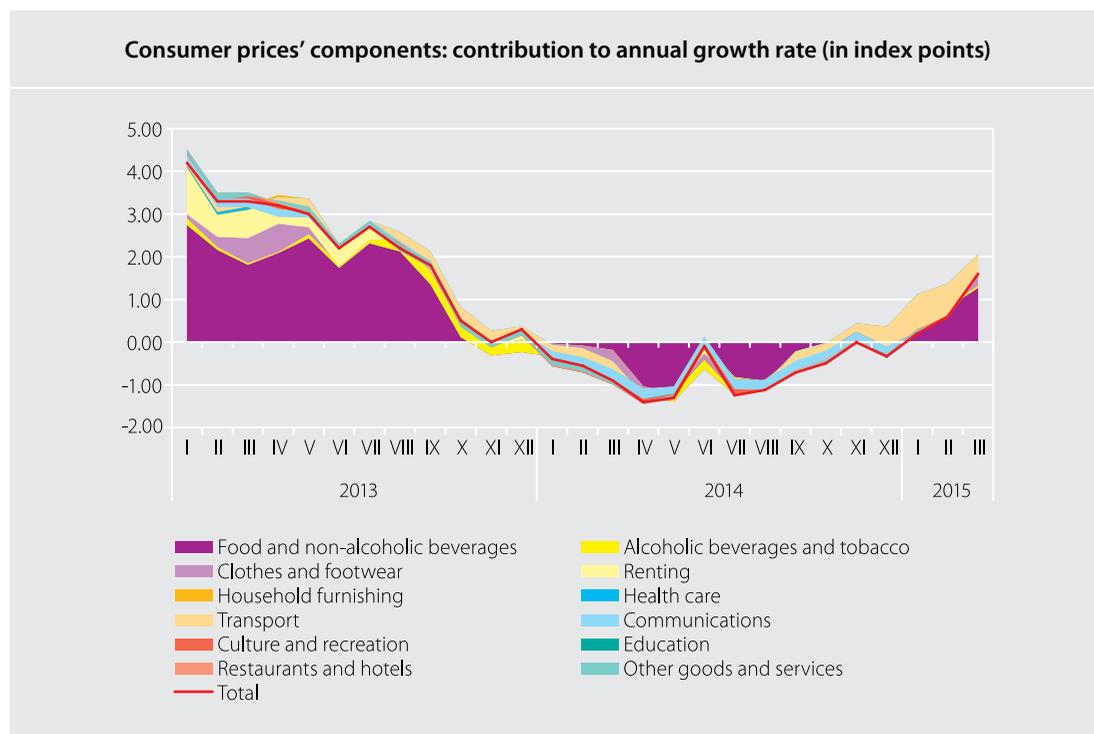
* We would like to note that, despite the index changes, the share of certain categories is recorded only at the second or the third digit, due to the weighting structure.

Source: MONSTAT and CBCG calculations

In the first three months of 2015, prices of oil at the global market declined in relation to Q4 2014. In Q1 2015, price of reference OPEC basket was 50.3 USD/barrel, or 31.4% lower than in Q4 2014. Average Brent price recorded in Q1 amounted to 54.0 USD/barrel, or 29.2% lower than in Q4 2014. Global market oil prices were rather low during the first three months of 2015, with the lowest price recorded in

January being below the price recorded in March 2009. This trend was mainly a result of the increase in the production of oil which was induced by the application of new technologies, deceleration of economic growth in China, as well as of the decline in demand for this energy generating product as a result of previously accumulated supplies.

Graph 3



Source: MONSTAT and CBCG calculations

Annual prices growth of 3.3% recorded in the category *food and non-alcoholic beverages* was the main contributor (1.3 percentage points) to the total annual inflation rate of 1.6%. Annual price growth was also recorded in the following categories: *alcoholic beverages and tobacco* (1.3%), *clothing and footwear* (5.8%), *housing, water, electricity gas and other fuels* (1.6%), *communications* (0.1%), *recreation and culture* (2.7%), and *other products and services* (0.9%). Prices declined in the following categories: *transport* (-5.2%), *furnishing, household equipment and routine household maintenance* (-0.5%), and *hotels and restaurants* (-0.6%). Prices in the category *education* remained unchanged.

In March 2015 relative to December 2014, the **producers' prices of manufactured products** recorded increase of 0.2%, whereas the prices in the manufacturing industry recorded increase of 0.3%, and the prices in mining and quarrying and electricity, gas and water supply remained unchanged. Producers' prices of manufactured products recorded y-o-y growth of 0.5%.

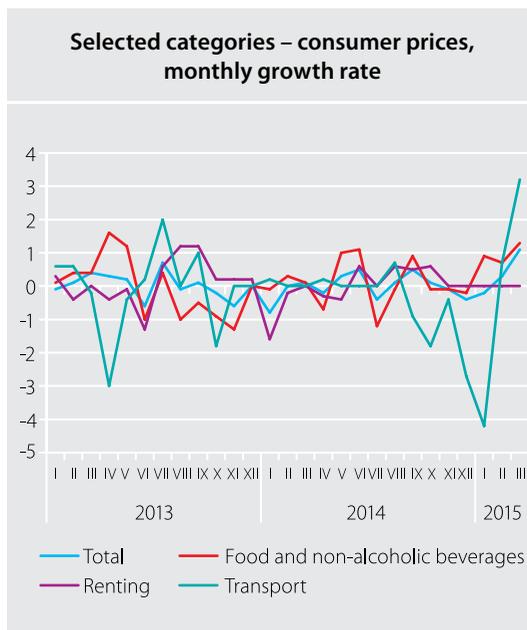
Comparing annual inflation recorded in Montenegro with that of the selected countries shows that annual inflation rate was higher only in Serbia and Albania (1.9% and 2.2%, respectively). The rate was positive in Czech Republic (0.1%), Latvia (0.5%), and Romania (0.8%), while Croatia and Estonia recorded zero inflation rate. The highest negative rate was recorded in Poland (-1.2%), while EU and EMU recorded the lowest negative inflation rate of -0.1%.

Graph 4



Source: Monstat

Graph 5



Source: Monstat

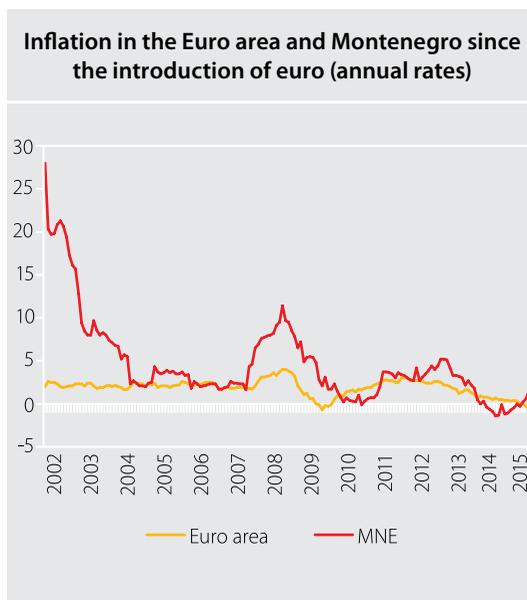
Annual HICP inflation recorded in the Euro area amounted to -0.1%, while in Montenegro, CPI inflation amounted to 1.6%, and annual HICP inflation in March amounted to 0.9%.

Graph 6



Source: National Statistical Offices and Eurostat

Graph 7



Source: Monstat and Eurostat

2. INFLATION EXPECTATIONS

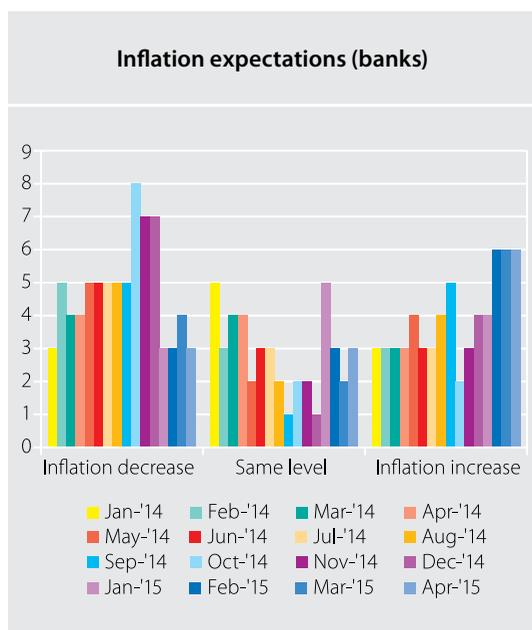
2.1. Banks Expectations

With regard to inflation expectations of banks, based on the survey conducted in April 2015, three banks expect inflation to decline or maintain the same level as in 2014, while six banks expect inflation to increase in relation to 2014 (Graph 8).

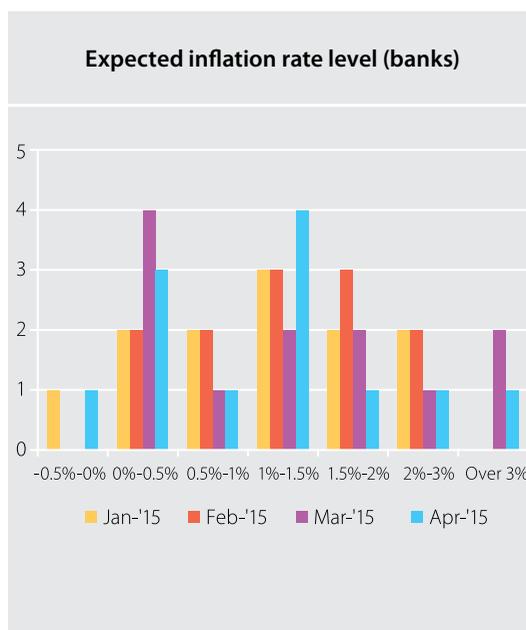
Banks have different expectations regarding inflation levels. Four banks expect the level of inflation in the range of 1% and 1.5%. Three banks expect the level of inflation in the range of 0% and 0.5%, while each of the remaining banks expect the following inflation ranges: -0.5% and 0%, 0.5% and 1%, 1.5% and 2%, 2% and 3%, and over 3%, respectively (Graph 9).

As for expectations regarding the nominal lending interest rates, eleven banks expect this rate to decline, one bank expects it to remain unchanged, while no banks expect the increase of this rate. Bank's expectations regarding the effective lending interest rates are the same.

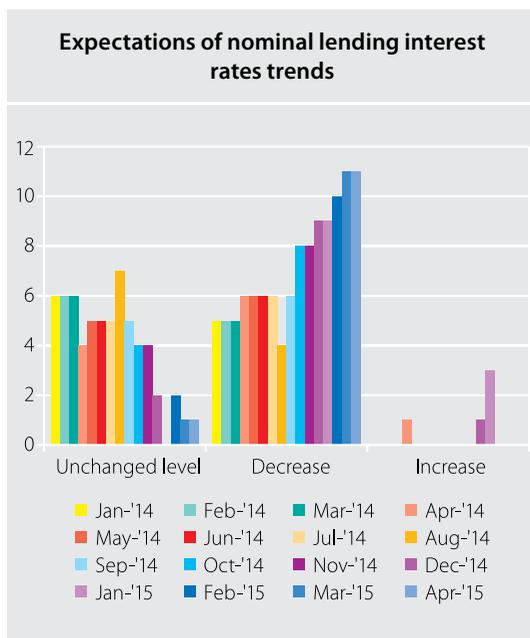
Graph 8



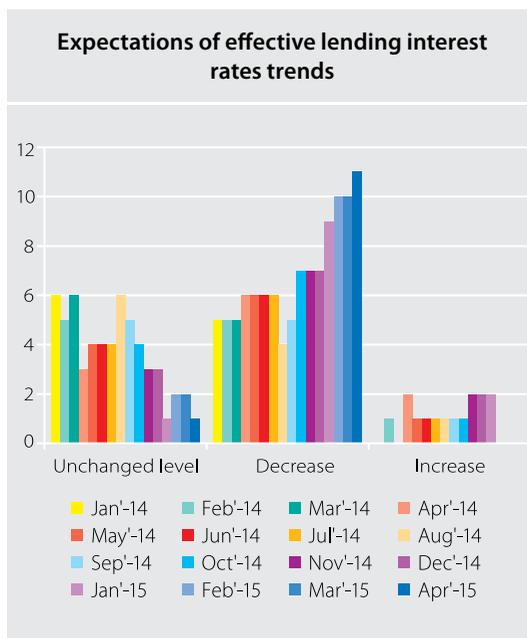
Graph 9



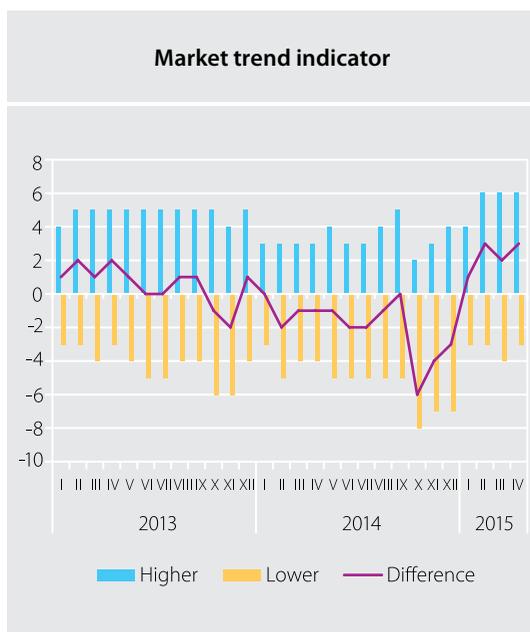
Graph 10



Graph 11



Graph 12



With regard to deposit interest rates trends, all twelve banks expected them to decline.

For the purposes of calculating inflation expectations we use the market trend indicator (the line in Graph 12). It is calculated as the difference between the number of banks expecting an inflation growth and the number of banks expecting inflation decrease. If the market trend indicator has a negative value, a decrease in the inflation rate is expected in the upcoming period. If its value is positive, an increase in the inflation rate can be expected. If it has a zero value, inflation rate can be expected not to change in the upcoming period. The more negative its value, the lower the inflation expectations, and vice versa. In 2014, the level of inflation expectations was significantly low with slight oscillations, while in the first four months of 2015, they are on an up-trend, as expected bearing in mind the negative inflation rate of the previous year.

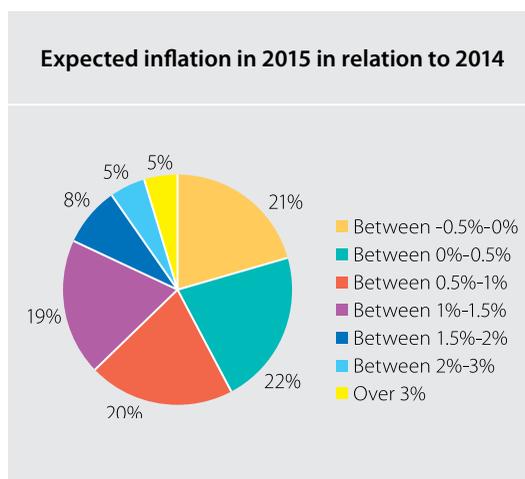
2.2. Expectations of Economy (Except Banks)

Inflation

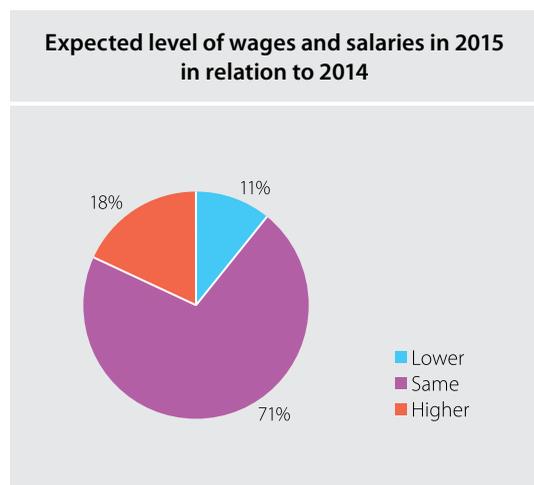
Out of total surveyed companies, the largest number (22%) expected that inflation in 2015 would range between 0% and 0.5%. Inflation in the range of -0.5% to 0% is expected by 21% of companies, 20% of companies expect this range to be between 0.5% and 1%, while 19% of surveyed companies expect the inflation range of 1% to 1.5%. Inflation range between 1.5% and 2% is expected by 8% of surveyed companies, while 5% expect inflation between 2% and 3%, and 5% expect inflation above 3%. Lower level of wages and salaries is expected by 11% of the surveyed legal persons, 71% expect them to remain unchanged in 2015, while the increase in wages and salaries is expected by 18% of surveyed companies. With regard to the number of employed persons observed in relation to the same period of 2014, 52% of surveyed companies expect it to remain unchanged, 30% expect this number to increase, and 18% expected it to decrease.

The majority of surveyed companies (51%) expected the prices of production inputs to remain unchanged, and 66% expect the prices of their products (services) not to change in 2015.

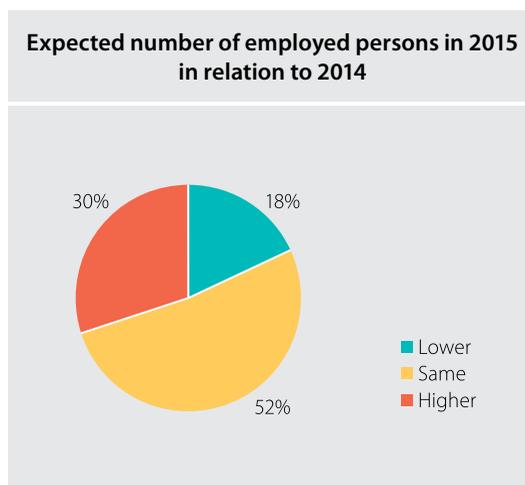
Graph 13



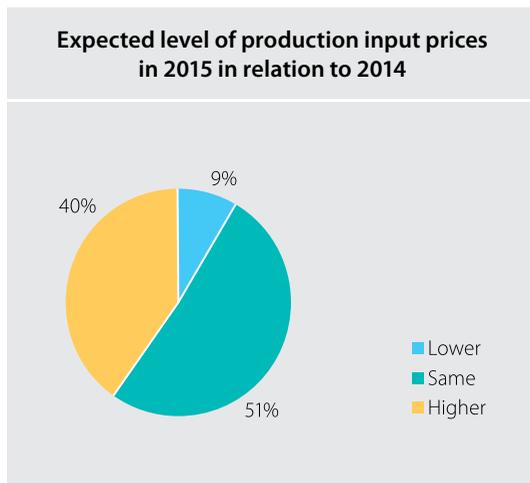
Graph 14



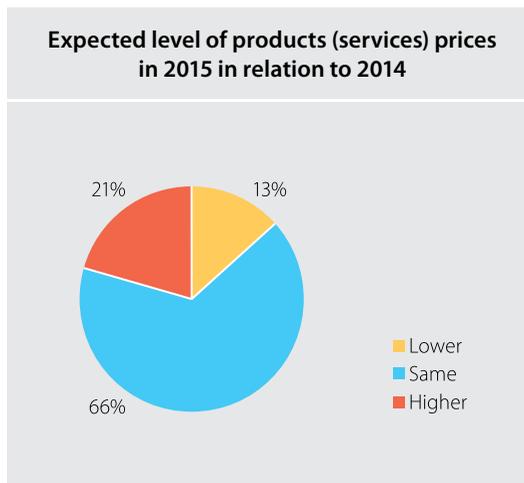
Graph 15



Graph 16



Graph 17

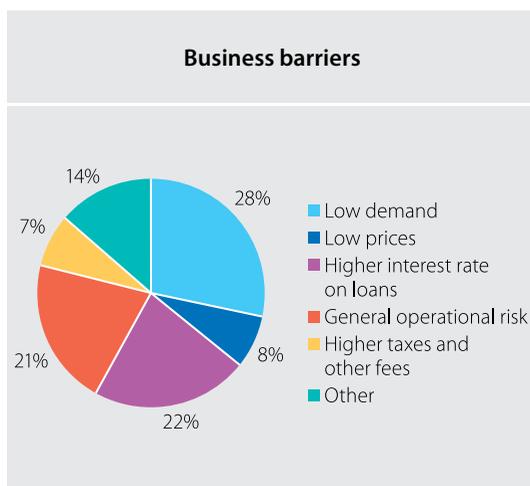


Business Environment

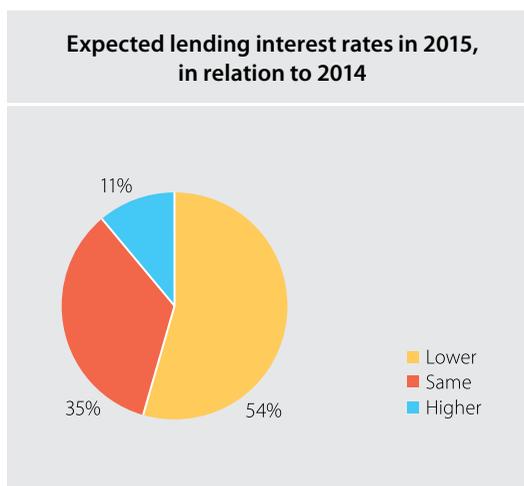
In the area of business barriers, survey results showed that most of the surveyed companies saw low demand (28%), high lending interest rates (22%), and general operational risks (21%) as main obstacles.

With regard to lending interest rates, 54% of surveyed companies expected them to decline, 35% expected them to remain unchanged, while 11% expected higher lending interest rates in 2015 relative to 2014.

Graph 18



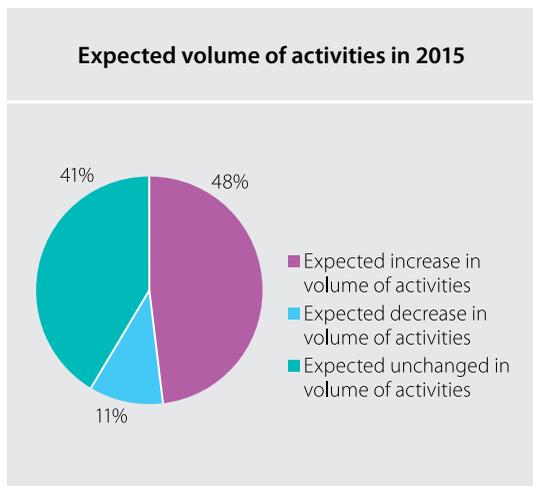
Graph 19



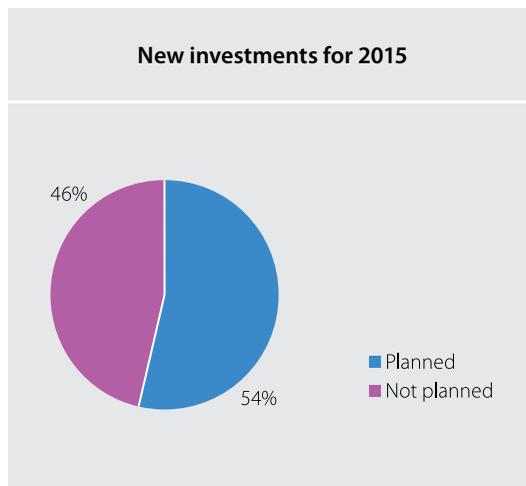
Investments

Out of the total number of surveyed companies, 48% planned the increase in the volume of activities over the course of 2015, while 54% planned new investments. Most investments (56%) referred to the increase in fixed assets, while low demand (35%), other obstacles (32%), insufficient exploitation of existing capacities (18%), high interest rates and unfavourable conditions for capital borrowings (9%), high existing production costs (9%), and high production costs (6%) were described as main barriers to new investments.

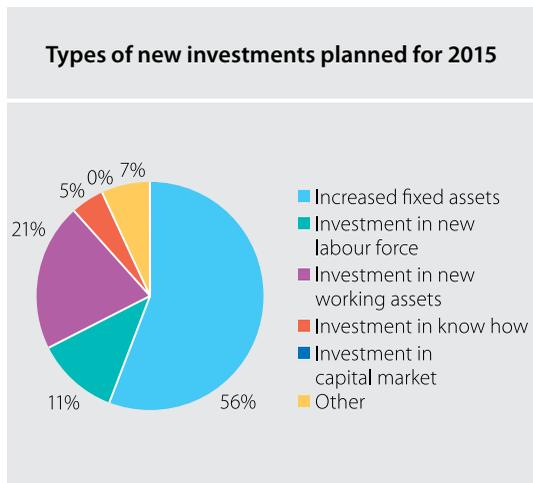
Graph 20



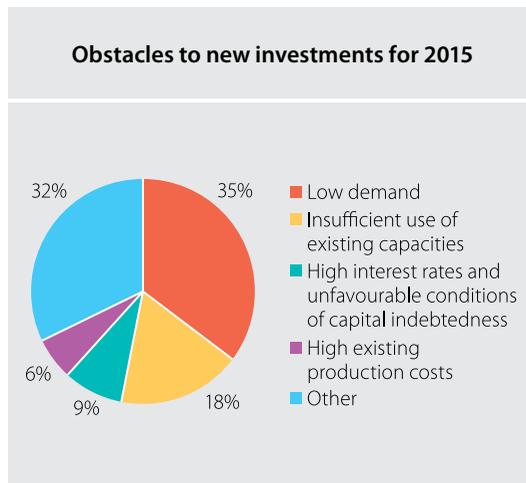
Graph 21



Graph 22



Graph 23



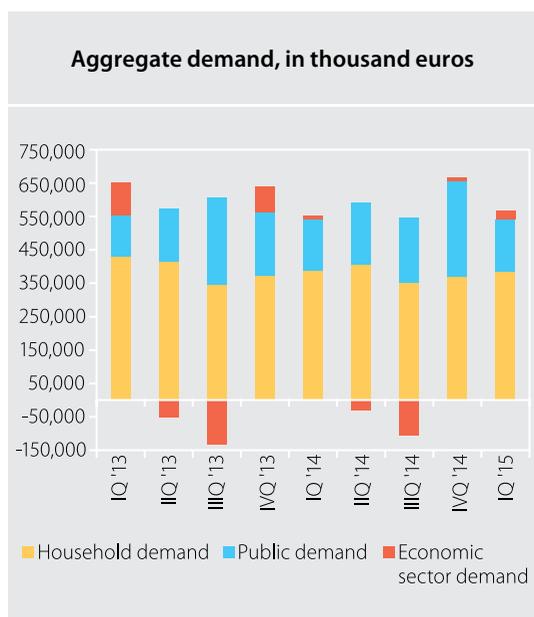
3. INFLATION DETERMINANTS

3.1. Demand

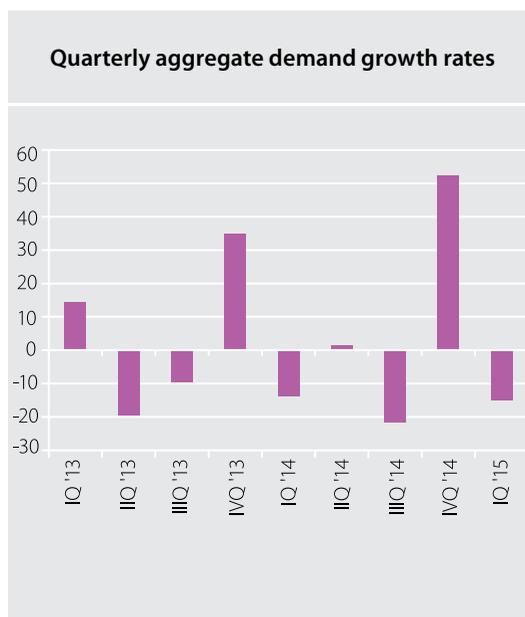
As per preliminary data, in Q1 2015, the aggregate demand recorded a y-o-y increase, while in relation to Q4 2014, it recorded decline. Observation of the total demand structure in relation to Q4 2014 shows that the share of household and corporate sectors increased, while the share of public spending decreased.

In Q1 2015, the level of aggregate demand recorded a y-o-y increase, while in relation to Q4 2014, it declined.

Graph 24



Graph 25



Box 1 - Aggregate demand calculation methodology

For the purpose of a more complete monitoring of aggregate demand as an inflation determinant, the CBCG has developed the aggregate demand calculation methodology. The starting point of this methodology states that the aggregate demand is the sum of the demand of three sectors: personal spending (household), 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 the sale of shares, non-market income, shadow economy revenues, and the like. Methodology of calculation of the aggregate demand is expressed by the following equation:

$$AD = C + I + G$$

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

I = net savings of economy (deposits – loans)

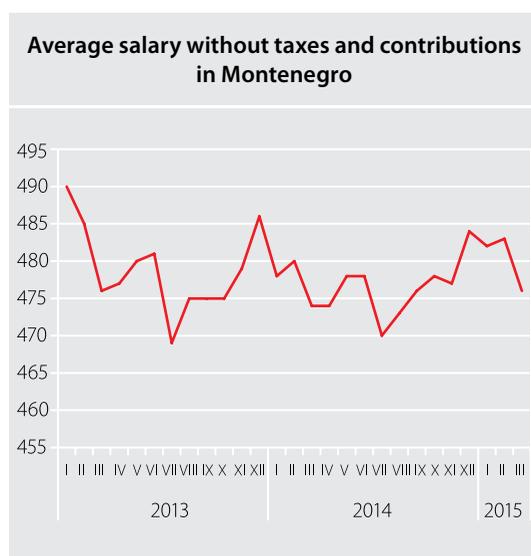
G = public spending – paid pensions – wages and salaries paid from the budget – net savings by the Government (deposits – loans – Treasury bills)

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

3.1.1. Wages and Salaries and Other Available Demand Determinants

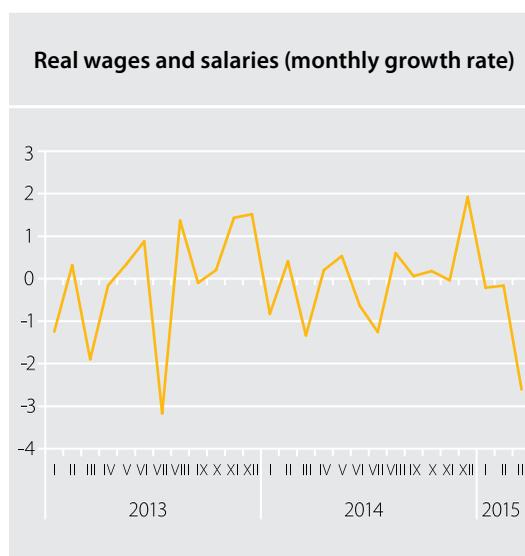
In the Q1 2015, the average gross salary in Montenegro amounted to 727 euros, while average salary without taxes and contributions amounted to 480 euros. In relation to Q4 2014, average gross and net wages and salaries recorded 0.1% increase each. Both average salary and average salary without taxes and contributions recorded y-o-y increase of 0.3% and 0.6%, respectively.

Graph 26



Source: Monstat

Graph 27



Source: Monstat

Taking into account the consumer prices, i.e. wages and salaries in real amounts, it can be concluded that real wages and salaries declined in all three months of 2015.

Households' loans were marked by a positive trend in Q1 2015. The average monthly growth of loans granted to this sector was 0.4%, while in the same period of 2014 average growth amounted to 0.2%. At end-Q1 2015, total loans to the household sector amounted to 904.6 million euros, which is 10.8 million euros or 1.2% more than at end-2014 or 17.5 million euros (2%) more than in the same period of the previous year.

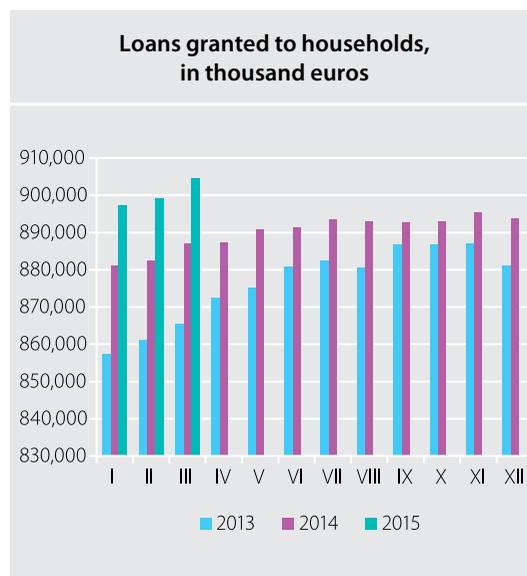
At end-March 2015, per capita debt¹ amounted to 1,455 euros, recording increase in relation to end-2014 when it amounted to 1,438 euros, and in relation to end-Q1 2014 when it amounted to 1,427 euros.

Total MFIs loans disbursed to households amounted to 38.7 million euros at end-March 2015 which was 2.6 million euros or 7.2% more than at the end of 2014, and 3.9 million euros or 11.2% higher than a year ago.

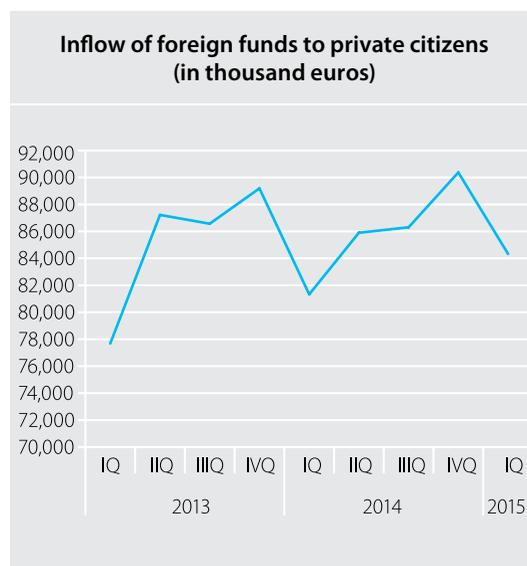
During the first three months of 2015, deposits of the household sector recorded average monthly uptrend of 0.5% (the average monthly growth of 0.05% was recorded in the same period of 2014). At end-Q1 2015, deposits to the household sector amounted to 1,352.7 million euros, which is 21 million euros or 1.6% more than at the end-2014 or 113.6 million euros (9.2%) more than in the same period of the previous year.

At end-March 2015, loans to deposits ratio for this sector amounted to 0.67 remaining unchanged in relation to end-2014 (0.67), but recording a y-o-y decline (0.72). At end Q1 2015, the household sector reported total net savings in the amount of 448.2 million euros, which was 10.2 million euros or 2.3% increase in relation to end-2014 and a 96.1 million euros or 27.3% y-o-y increase.

Graph 28



Graph 29



Source: CBCG

¹ Source: Monstat, September 2014, population estimate as at 31 December 2013.

Graph 30



In Q1 2015, y-o-y increase was recorded in the inflow arising from foreign remittances for the benefit of natural persons' accounts, personal transfers, as well as from pensions, disability allowances and other social welfare benefits.

Observation of the total household demand by quarters shows that in Q1 2015, household demand was higher in relation to Q4 2014, and slightly lower in relation to Q1 2014.

3.1.2. Budgetary Analysis

According to Ministry of Finance preliminary data, in the first three months of 2015, the Budget of Montenegro, recorded total revenues² in the amount of 792.1 million euros.

Source revenues amounted to 258.4 million euros or 7.2% of estimated GDP³, exceeding the plan by 2.5%, and recording a y-o-y increase of 1.9%.

Tax revenues accounted for the main share in the structure of source revenues (62.6%), followed by contributions (32.5%), other revenues (1.6%), fees (1.3%), receipts from loan repayment (1.1%), duties (1%), and donations (0.3%).

Tax revenues amounted to 160.6 million euros recording a decrease of 2.2% in relation to the plan, as well as in relation to the same period of 2014. Observed in nominal terms, the most severe annual revenues drop was recorded in VAT (4.9 million euros or 5%), and in corporate income tax (3.5 million euros or 23.8%).

Positive deviance from the same period of 2014 is recorded in excise duties and international trade tax.

Revenues from contributions amounted to 83.8 million euros exceeding the plan for Q1 by 15% and showing a y-o-y growth of 11.8%.

² Revenues include source revenues (direct and indirect taxes and non-tax revenues), borrowings and loans with domestic and foreign sources, and sale of properties.

³ Source: Ministry of Finance; estimated GDP for 2015 amounted to 3,580 million euros (preliminary data).

In Q1 2015, *budget expenditures* amounted to 309.9 million euros or 8.7% of GDP. Recorded expenditures were lower than planned for Q1 2015 by 20.8%, but higher compared to Q1 2014 by 1.2% or 3.7 million euros, mainly as a result of transfers to institutions, individuals, non-government and public sectors, as well as due to capital expenditures, which increased by 8 million euros.

Current budget expenditures amounted to 293.2 million euros or 8.2% of GDP, while the capital budget amounted to 16.7 million euros or 0.5% of GDP.

In the observed period, current expenditures amounted to 136.2 million euros or 13.8% lower than planned. Virtually all current expenditures were below planned.

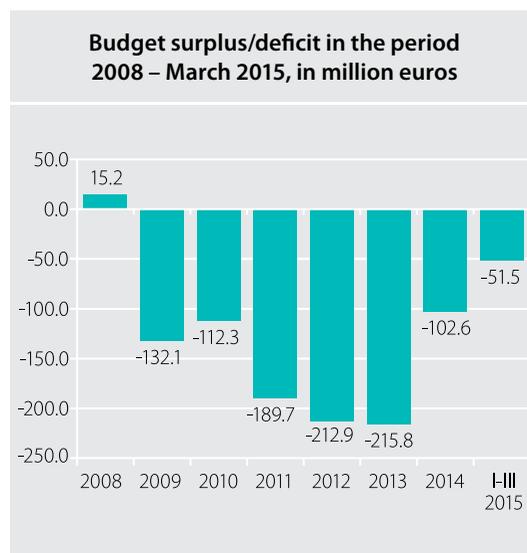
Deficit of the Budget of Montenegro was estimated at 51.5 million, or 1.4% of GDP.

3.1.3. Economy

Due to the absence of data on investments by the corporate sector, we can use net indebtedness of the corporate sector for approximation.

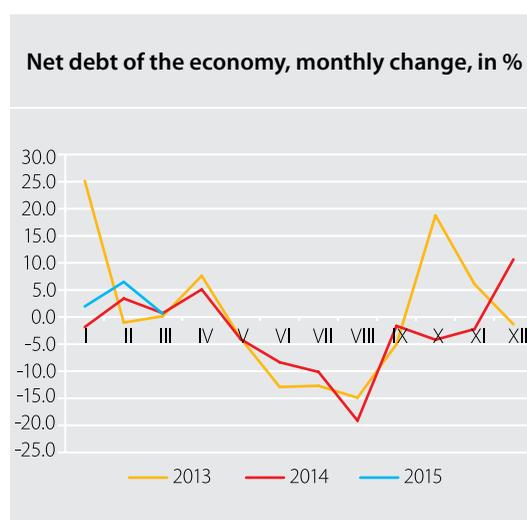
In Q1 2015, loans to the corporate sector significantly exceeded this sector's deposits. Thus, the net debt of the corporate sector amounted to 302.9 million euros at the end of the reporting period, and it was 25.6 million euros or 9.2% higher than at end-2014, and 102 million euros or 25.2% lower compared to end-Q1 2014. Long-term loans accounted for the main share of 74.9% in the structure of loans to the corporate sector, which indicates that loans to this sector were mainly used for the increase in the volume of economic activity.

Graph 31



Source: Ministry of Finance

Graph 32

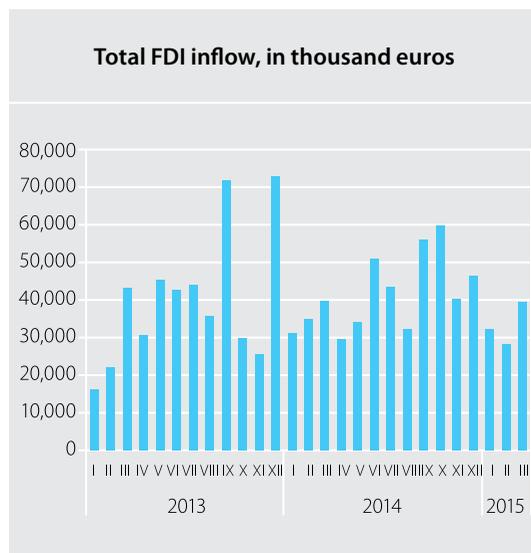


3.1.4. External Demand and the Current Account

In Q1 2015, current account deficit increased, continuing the trend of deficit increase started in 2014. According to preliminary data, current account deficit amounted to 197 million euros, showing a y-o-y increase of 6.7%. In the observed period, foreign trade deficit increased 4.8%. Observation of the international visible trade shows an increase in both visible exports and visible imports of 3% and 4.4%, respectively.

In Q1 2015, international trade of services recorded surplus in the amount of 11.9 million euros, which represents an annual growth of 0.7%. This 11.9% income increase was a result of positive trends recorded in the areas of transport and tourism. The surplus on the primary income account which amounted to 40 million euros, recording a 15.8% y-o-y, was a result of the 3.9% increase in the income of this sub-account, and the 16.6% decline in expenditures. In the observed period, secondary income recorded surplus decline of 20.7% mainly due to the y-o-y increase of 20.9% in expenditures.

Graph 33



Source: CBCG

Preliminary data shows that in Q1 2015, net FDI inflow amounted to 86.2 million euros which is a 9.2% y-o-y increase.

Inflow of FDI in the form of intercompany debt amounted to 45.3 million euros or the share of 45.3% in total inflow, while the inflow arising from the withdrawal of residents' funds invested abroad amounted to 2.2 million euros. In the structure of equity investments, 17.7 million euros referred to investments in companies, while the inflow arising from investments in real estate amounted to 34.7 million euros.

Total FDI outflow amounted to 13.8 million euros, or 48.6% less than in the period January-March 2014. In the structure of outflow, outflow arising from residents' investments abroad amounted to 6 million euros, while the withdrawal of non-residents' funds invested in Montenegro amounted to 7.8 million euros.

3.2. Supply and production

In Q1 2015, industrial output recorded a 7% y-o-y growth due to the growth recorded in all three sectors: mining and quarrying (16.2%), electricity, gas and water supply (9.7%), and in manufacturing industry (3.5%). Observation of monthly data on the industrial output trends shows that in Q1 2015, growth was recorded in February (10.1%) and in March (5.3%), while in January, industrial output declined (-19.1%).

In Q1 2015, some 65,275 tourists visited Montenegro, which is a y-o-y increase of 19.3%. Number of domestic and foreign tourists arrivals increased by 28.1% and 16.7%, respectively. The number of overnights in the observed period amounted to 240,511, showing y-o-y increase of 16.6%.

With regard to forestry, in Q1 2015, some 9,247 m³ of wood products were produced which represents a y-o-y decline of 56.4%.⁴

The value of executed construction works in Q1 2015 amounted to 64.2 million euros, showing a y-o-y increase of 9.6% while, measured by the effective working hours, construction activity recorded 7.6% increase.

In the first three months of 2015, the number of passengers in air transport recorded a y-o-y increase of 10.6%, while cargo transport recorded a y-o-y increase of 12.7%. In Q1 2015, the number of passengers in road⁵ transport recorded 4.2% y-o-y increase. In Q1 2015, the railway passenger transport recorded a y-o-y increase of 0.4%, while railway cargo transport declined 2%.

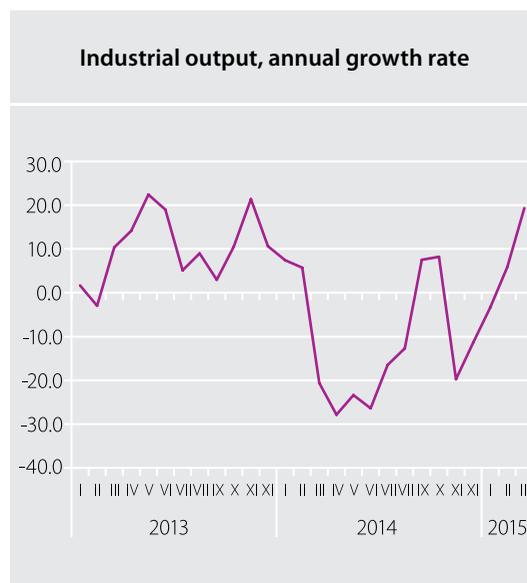
3.3. Stock Exchange Indices

In Q1 2015, Monex20⁶ index recorded positive trends. In January this index recorded slight monthly decline, while in February and March it increased. However, in Q1 2015, investment funds index Monex PIF continued with the negative trends started at-end 2014, and declined in the first two months, while in March it grew slightly.

In relation to end-2014, Monex20 recorded an absolute growth of 891.03 index points or 7.8%, while Monex PIF declined by 386.37 index points or 12.7%.

In relation to end-March 2015, Monex20 recorded growth of 17.9%, and Monex PIF declined by 16.7%.

Graph 34



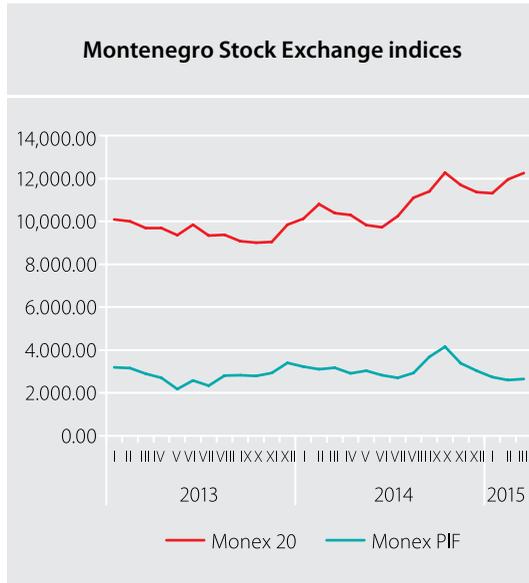
Source: Monstat

⁴ Presented as weighted index, while output presented as non-weighted index was 52.3% higher for the same period

⁵ Data for road cargo transport were not available during the compilation of the report.

⁶ Within the observation of companies' price trends two indices - MONEX and MNSE10 - are in use in Montenegro's capital market as of 01 April 2015. MONEX index represents the successor to MONEX20 index, and in line with new Methodology it has more companies in its market basket. New MNSE10 represents a blue-chip index and comprises the ten "best" companies in the Montenegrin market.

Graph 35



At end-March 2015, with regard to their historical maximum values (reached in 2007), both Monex20 and Monex PIF declined by 4 times and 19.2 times, respectively.

Source: Montenegro Stock Exchange

4. MONETARY POLICY

In February 2015, the Decision Amending the Decision on Bank Reserve Requirement to be Held with the Central Bank of Montenegro (OGM 7/15) was passed. This Decision enables the banks to allocate up to 25% of the reserve requirement in the form of Montenegrin T-bills of any maturity, after which they can allocate up to 10% more and keep it in the form of T-bills with maturity up to 182 days. This possibility will be in force up to 31 December 2015.

5. INFLATION FORECAST FOR 2015 AND THE FIRST QUARTER OF 2016

5.1 Model Assessment

Montenegro's inflation Fan Chart represents a graph of probability distribution of inflation rate presented by the consumer price index. In that direction, instead of determining concrete points, using the distribution of probability the Fan Chart includes potential risks and uncertainties which would in the future period influence the movement of inflation. The Fan Chart is aimed at considering uncertainties in the real economy flows, which result in the inflation rate movement, and periodically reflected in inflation rate trend (higher food and energy prices, increase/ decrease in the foreign trade deficit).

Montenegro's fan chart for 2015 and Q1 of 2016 was based on the following three estimated components:

1. **Central projection values** – The values of the Fan Chart central projection are derived from the ARIMA model;
2. **Degree of uncertainty** – determines the Fan Chart width. The degree of uncertainty ratios are obtained through analytical assessment and calculation of a relative impact of potential internal and external shocks that are possible in Montenegrin economy during 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 are “overestimated” or “underestimated” inflation rates. This will also influence the position of the mean value of inflation distribution.

Fan Chart central projection - ARIMA Model for 2015 and Q1 of 2016

With a view to developing a fan chart, an ARIMA (Auto Regressive Integrated Moving Average) model was developed of time series of inflation of Montenegro showed through the Consumer Price Index⁷.

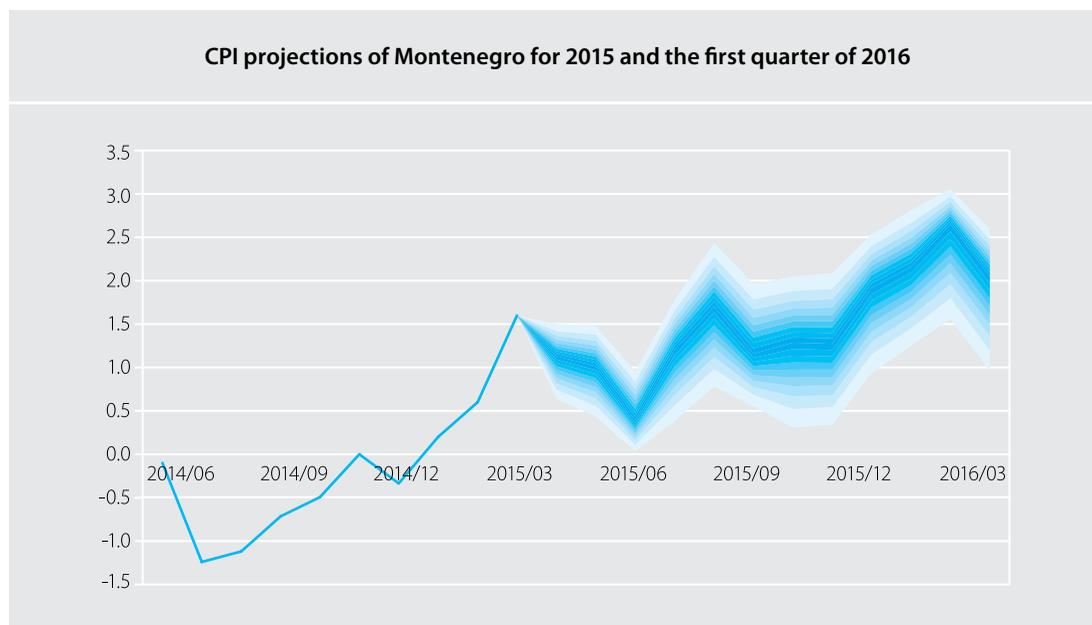
⁷ More detailed explanation of the ARIMA model for Montenegro is represented in the Working study of the CBCG no. 11 "Inflation Forecast": Empirical research trends of retail price index of Montenegro for 2007 - Implementation of ARIMA models.

ARIMA model was used for short term forecasts (12 months), whereby iteration of ARIMA models was made, which were ranked based on their efficiency and quality of diagnostics. The selected ARIMA model (11, 1, 17)⁸, ARIMA has sufficient confidence level for forecasts.

The monthly forecasts value was used as the value of central projection of the CPI Fan Chart for 2015 and Q1 of 2016. The obtained values represent the distribution mode, i.e. values with the highest frequency in the distribution of this time series.

Mean value of the obtained model is 1.5. Value of the obtained model varied between 0.4 and 1.2, while standard deviation value was 0.25. The central band was placed in lower part of distribution, i.e. the corresponding degree of uncertainty was concentrated towards higher inflation levels, which are reflected in the graph through the „thicker“ band concentrated above “the deepest shade of blue” central band. The fan chart presents 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.⁹ The fan chart has an equal number of bands (eight) on either side of the central band whereby every band which is of the same colour, in the sum, both above and below the central band, cumulatively takes the inflation projection to the next 10% of probability. As the degree of uncertainty grows over time, so the fan chart spreads.

Graph 36



Source: CBCG, 2015

⁸ 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.

⁹ The mode value (central projection) is, by construction, 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.G. and Whitley, J.D. (1998), ‘The Inflation Report projections: Understanding the Fan Chart’, Bank of England, Quarterly Bulletin, 38, pp. 30–37)

Montenegro's inflation Fan Chart based on the ARIMA model projection for 2015 and Q1 of 2016 shows, **with a 90% probability that, depending on month, CPI inflation will vary between 0% and 3%. Inflation ranging between 0.9% and 2.5% with the central tendency of 1.8% is projected for end-2015.** The central projections of the Fan Chart that refer to the thickest part of the graph, shows the probability range of 10% (Graph 36).

Inflation forecast for 2015 and the first quarter of 2016:

1. According to the assumption on the primary products prices trends at the global market, the projection assumes specific growth of primary products prices;
2. Agricultural products prices fluctuation of +/-5% was conditioned by their seasonal character;
3. With regard to previous oil prices trends, we assumed that the oil prices will moderately increase in the observed period;
4. The adoption of the Law Amending the Law on Excise Duties, will gradually increase the excise duties on tobacco, alcoholic beverages and carbonated drinks;
5. Increase in electricity prices up to 5% (including foreseen growth in August 2015);
6. Growth of investments and more intensive economic activity in 2015 - 2016;
7. A standstill in wages and salaries in 2015, with the expectation of mild growth in 2016;
8. Stagnation in real estate prices;
9. VAT and/or other taxes are not expected not increase.

Deviation from any of abovementioned parameters would require the correction of the forecast.

6. EXPECTED INFLATION IN 2015

Inflation and inflation expectations are on the rise in Q1 of 2015. Taking into account the negative inflation rate recorded in 2014, inflation and inflation expectation growth is not surprising.

Food product prices had the key influence on this year inflation trend. Annual prices growth of 3.3% recorded in the category food and non-alcoholic beverages was the main contributor (1.3 percentage points) to the total annual inflation rate of 1.6% recorded in Q1 2015. The influence of petrol retail prices increase, which was a result of the introduction of additional excise burdens, and which has direct and indirect effects, should also be observed.

The majority of surveyed banks and companies expect inflation increase. Majority of surveyed banks expected inflation rate between 1% and 1.5%, while most of surveyed companies expected inflation rate between 0% and 0.5%.

The majority of industries experienced the increase in the volume of activities, which has had favourable effects on the inflation trends (increase in supply). In addition, entrepreneurs' expectations point to the increase in the volume of activity. On the other hand aggregate demand is on the rise (in relation to Q1 of 2014), which exerts pressure on the inflation growth.

Model-based assumption shows 90% probability that the CPI inflation in 2015 will range between 0% and 3%. The inflation at end-2015 is forecasted between 0.9% and 2.5%. Our expert assessment is somewhat higher compared to the model-based assessment and to Q4 2014, i.e. we expect that at end-2015, inflation will range between 1.25% and 3.25%.

Table 3

Inflation rate estimate		
Optimistic estimate	Realistic estimate	Pessimistic estimate
1.25%	2.25%	3.25%

Experts' assessment is based on the same assumptions as the model assessment. The change in any parameter used for this forecast would require the revision of the forecast.