



PRICE STABILITY REPORT 2014

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LIST OF ACRONYMS

ARIMA	Autoregressive Integrated Moving Average
GDP	Gross Domestic Product
CBCG	Central Bank of Montenegro
CPI	Consumer Price Index
EMU	Economic and Monetary Union
EU	European Union
EUR	Euro
MONSTAT	Statistical Office of Montenegro
OPEC	Organization of the Petroleum Exporting Countries
VAT	Value Added Tax
FDI	Foreign Direct Investments
UN	United Nations
USD	United States Dollar

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1. INFLATION INDICATORS

1.1. Inflation Trend in Montenegro

After continuous disinflation trend in 2013, prices in 2014, observed through the annual rates, recorded a negative signal in all months except November when the annual inflation was 0.0%. Due to import dependence, the prices trend in Montenegro was largely affected by the prices trend in the neighbouring countries and the EU. Low inflation currently represents a common phenomenon in most countries, as a result of the fall in energy prices, i.e. oil prices at the world market, as well as lower prices of some food products. This price trend has not bypassed Montenegro, thus, the rate of -0.3% recorded in December 2014 represents the lowest y-o-y price level of inflation as measured by the CPI (January 2009). Observed by quarters, the growth in prices in 2014 was reported during Q2 (0.7%), and Q3 (0.1%), while price decline was recorded in Q1 and Q4 of -0.8% and -0.4%¹, respectively. Observed by months, the highest decline in consumer prices was recorded in January (-0.8%), July (-0.4%) and December (-0.4%), while the largest and identical price growths were recorded in June and September (0.5%).

Table 1

Inflation, %								
	2013				2014			
	III	VI	IX	XII	III	VI	IX	XII
Change relative to the previous year-end	0.5	0.4	1.1	0.3	-0.8	0.0	0.0	-0.3
Annual change	3.3	2.2	1.8	0.3	-0.9	-0.1	-0.7	-0.3

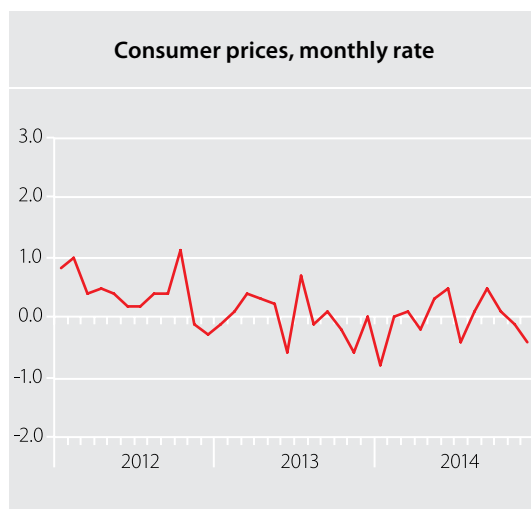
Source: Monstat

The highest annual decline in 2014 was recorded by the prices of *transportation* (4.7%), with the highest decline in prices of fuels and lubricants by 11.1%, which normally account for almost half of *transportation* category whose share in total CPI weighted structure amounts to 10.1%. The fall in prices of telephone and telefax equipment and services by 3.5% mostly affected the prices decline in the category of *communications* (3.5%). Prices in the category of *furniture and routine maintenance* declined by 1.9%, due to decline of textile products prices for the households (11.5%). Prices declined also in *other products and services* by 1%, while prices in the category of *housing, water, electricity, gas and other fuels* decreased by 0.3%. The highest annual price growth in 2014 was recorded in the category *health care* (3.6%), mainly due to the increase in the prices of pharmaceutical products by 4.3% and prices of dental

¹ Due to rounding of figures, when calculating quarterly inflation, the sum of rates insignificantly differs from total annual inflation.

services by 5%. The prices in the category *alcoholic beverages and tobacco* increased by 0.9% due to the increase in prices of alcoholic beverages by 2.9%. Prices in the category *food and non-alcoholic beverages* grew by 0.8%, due to the increase in prices of bread and cereals by 4.3%, vegetables by 2.9%, fruits by 2.7%, fish by 1%, milk, cheese and eggs by 0.7% and other food products by 2.1%. At the same time, within this category, prices of oil and fats declined by 11.7%, sugar, jam, honey, chocolate and confectionery products by 0.6%, while prices of non-alcoholic beverages decreased by 1.4%. Prices in the category *clothes and footwear* increased by 0.7%, *recreation and culture* by 0.6%, while the lowest price increase was recorded in the category *hotels and restaurants* (0.1%). Prices of *education* remained unchanged in relation to December 2013.

Graph 1



Source: Monstat

The UN report “World Economic Situation and Prospects 2015” states that, over the last two years, prices of most basic commodities recorded a downward trend, and excessive price growth in 2015 and 2016 is not anticipated. A sharp drop in oil prices in late 2014 represented the decisive factor for low inflation in most countries in 2014. During 2015 and 2016, the global price growth will be very moderate, although some transition countries and most developing countries have increased the inflation rate, while some developed

Table 2

Share of individual categories in total inflation ²				
	Weights	XII 14/XII 13	Growth rate	Contribution
TOTAL	1000,0	99.7	-0.3	-0.3
Food and non-alcoholic beverages	386,4	100.8	0.8	0.3
Alcoholic beverages and tobacco	37,9	100.9	0.9	0.0
Clothes and footwear	70,7	100.7	0.7	0.1
Housing, water, electricity, gas and other fuels	153,1	99.7	-0.3	0.0
Furnishing, household equipment and routine household maintenance	46,9	98.1	-1.9	-0.1
Health	38,2	103.6	3.6	0.1
Transportation	101,0	95.3	-4.7	-0.5
Communications	57,1	96.5	-3.5	-0.2
Entertainment and culture	27,2	100.6	0.6	0.0
Education	15,7	100.0	0.0	0.0
Restaurants and hotels	23,0	100.1	0.1	0.0
Other products and services	42,8	99.0	-1,0	0.0

Source: MONSTAT and CBCG calculations

² 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.

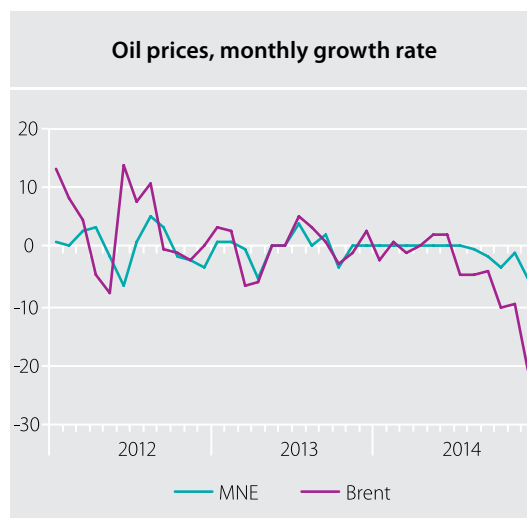
countries will face very low inflation and deflation. According to the Report³, inflation in developed countries for 2015 could amount to 1.4%, in countries in transition 7.4% and in developing countries 5.3%. Due to the dependency on import, changes in prices of oil, food and consumer goods will affect prices in Montenegro and the overall inflation in the upcoming period.

The prices of liquid fuels and lubricants, which were mostly affected by the changes in the global oil prices, recorded the annual decline of 11.1%. The price of the OPEC reference basket amounted on average to 96.2 USD/barrel in 2014, being 9.2% lower than in 2013. The average price of the OPEC reference basket in 2014 was 99.0 USD/barrel, or 8.9% lower relative to average price in 2013. Observed during the year, the highest average Brent oil price was recorded in June (111.66 USD/barrel), and the lowest in December when the average price of Brent oil reached a level of 62.53 USD/barrel, which was 43.6% less than the average price of Brent oil in December 2013 and also the lowest price since May 2009 (when it amounted to 57.27 USD/barrel). The decline in oil prices has substantially affected an increase in supply, particularly an increase in oil production from shale in the USA. In addition, there has been a slowdown in demand for new energy source as a result of slower global economic growth during 2014. The price of oil had a declining tendency especially in the second half of 2014 and the assumption is that it will have a similar trend in 2015, with regard to the relation between supply and demand. According to the report of the UN "World Economic Situation and Prospects 2015", boosting global economic growth in 2016 will stimulate demand for this product, which will affect the price.

The largest negative contribution of -0.5 percentage points was recorded the prices of *transportation*, while the negative contribution of -0.2 percentage points was recorded in *communications* and -0.1 percentage points in *housing and routine maintenance*. The largest positive contribution to the overall annual inflation rate was provided by the prices of *food and non-alcoholic beverages* (0.3 percentage points). Graph 3 shows shares of individual components of consumer prices in annual inflation.

In 2014, the monthly **core inflation** rate was below the official monthly inflation for seven months, while in April, July, October, November and December was higher than the level of total monthly inflation (this was due to the changes in prices of certain products which are otherwise excluded from the calculation core inflation, as for example, electricity, agricultural products, fuel, and the like). Graph 4 shows the trend in the total and core inflation rate.⁴

Graph 2

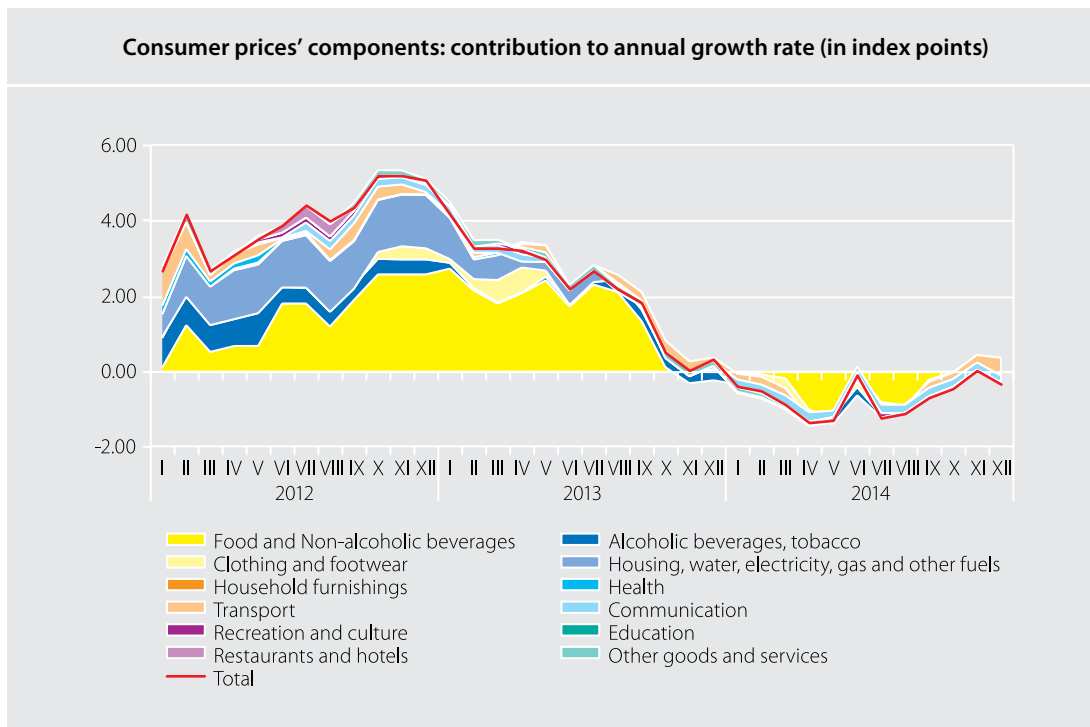


Source: MONSTAT and „Monthly Oil Market Reports“, OPEC

³ Detailed data on inflation trends for individual regions and countries are listed in the Annex to the report "World Economic Situation and Prospects 2015" in tables: A.4, A.5 and A.6.

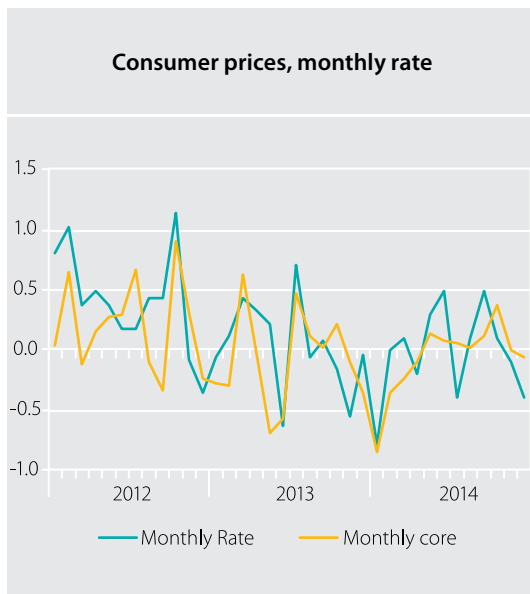
⁴ Data on annual change in prices for all products included in the core inflation basket were not available for 2013 and 2012, i.e. for the products excluded from the basket for the calculation of the core inflation, and it was not possible to calculate annual core inflation.

Graph 3



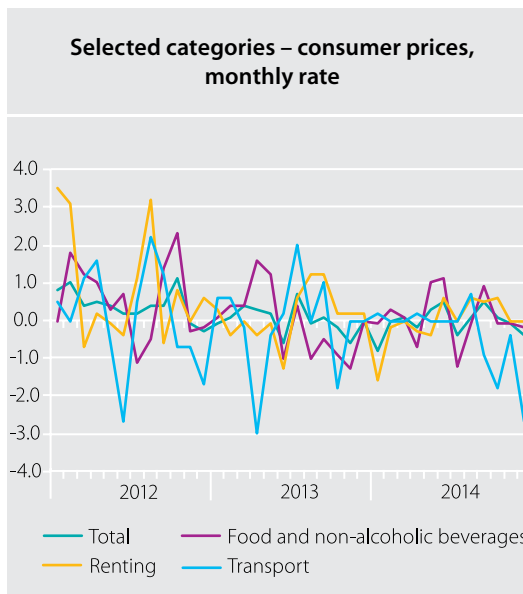
Source: MONSTAT and CBCG calculations

Graph 4



Source: MONSTAT and CBCG calculations

Graph 5



Source: Monstat

The producers' prices of manufactured products recorded a y-o-y increase of 0.9% in December 2014. Price growth was recorded in all three sectors: mining and quarrying by 4.3%, electricity, gas and steam supply by 1.6% and in the manufacturing industry by 0.3%. The average growth in the producers' prices of manufactured products amounted to 0.1% in 2014, whereby an average growth in prices was recorded in mining and quarrying prices (4.3%) and electricity, gas and steam by 0.3%, while prices in manufacturing industry recorded an average decline of 0.4%.

Export prices of producers of manufactured products⁵ recorded the y-o-y increase of 20.3% in December 2014, while the average annual growth in prices was 4.3%. Manufacturing industry reported annual growth in prices of 21.3%, and mining and quarrying reported decline of 3.6%.

Import prices of manufactured products⁶ declined by 2% in December 2014 compared to the previous year, and the average annual rate showed a decrease of 1.6%. Annual decline was also reported by the manufacturing industry prices (1.9%), while mining and quarrying prices reported annual decline of 3%.

1.2. Inflation Trends in the Region and the EU

Observing annual inflation in some countries of the region, it can be seen that the positive rate recorded in Serbia (1.7%) and Albania (0.7%), while negative rate was recorded in Macedonia (-0.5%), Bosnia and Herzegovina (-0.4%), Croatia (-0.1%) and Slovenia (-0.1%).

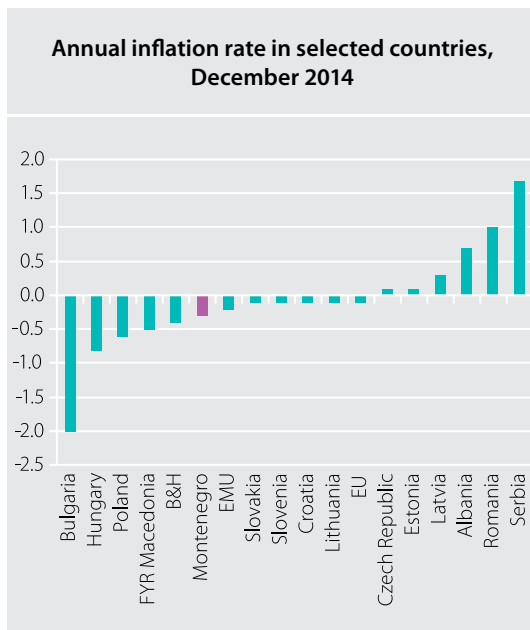
The annual rate in the Euro area in December 2014 of -0.2% was the first negative rate recorded since October 2009 (-0.1%). Based on currently available information and trends, it is assumed that in the first months of 2015 it will remain at a low level, or have a negative trend. In December 2013, annual inflation amounted to 0.8%.

When it comes to inflation in the EU member states, a negative rate was recorded in sixteen member states, while the lowest annual rate was recorded in Greece (-2.5%), Bulgaria (-2.0%), Spain (-1.1%) and Cyprus (-1.0%). The highest annual rate was recorded in Romania (1.0%), Austria (0.8%) and Finland (0.6%). The same annual inflation rate of 0.1% was recorded in the Czech Republic, Denmark, Germany and Estonia. The annual rate in the Euro area amounted to -0.2%, and the components with the largest negative contribution to annual inflation were liquid fuels (-0.17 percentage points), fuels and lubricants for vehicles maintenance (-0.53 percentage points), and telecommunications (-0.08 percentage points), while the highest positive contribution was registered by restaurants and bars (0.11 percentage points), rents (0.11 percentage points) and tobacco (0.07 percentage points).

⁵ The exports prices index represents the monitoring of monthly changes in the prices in industrial products made by companies and sold at foreign markets. It is an important economic indicator that can be used as time series deflator, particularly for national account purposes.

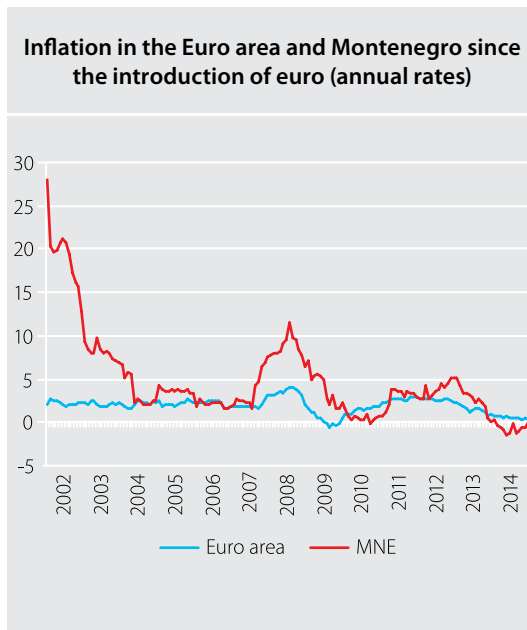
⁶ Import price index refers to the monthly change in prices of imported industrial products. It can be used as a time series deflator, especially for the needs of national accounts and as a means of harmonizing prices at the conclusion of different sales contracts.

Graph 6



Source: National Statistical Offices and Eurostat

Graph 7



Source: Monstat and Eurostat

The annual rate reported in the EU was negative amounting to -0.1% in December 2013; it was -0.2% in Euro area, while it was -0.3% in Montenegro (HICP inflation was -0.6%).

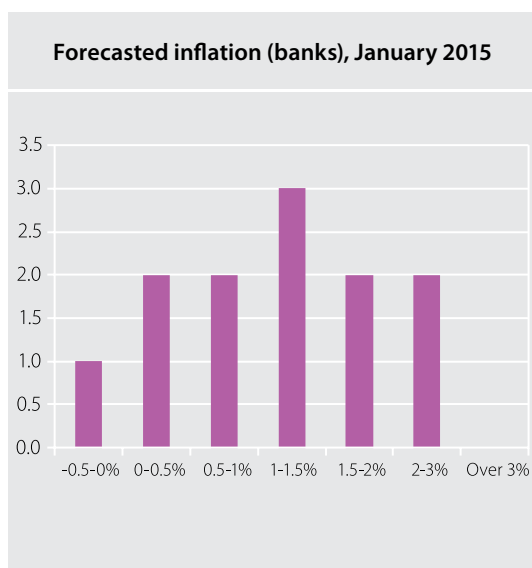
2. INFLATION EXPECTATIONS OF THE BANKING SECTOR AND ECONOMY

2.1. Banks' Expectations

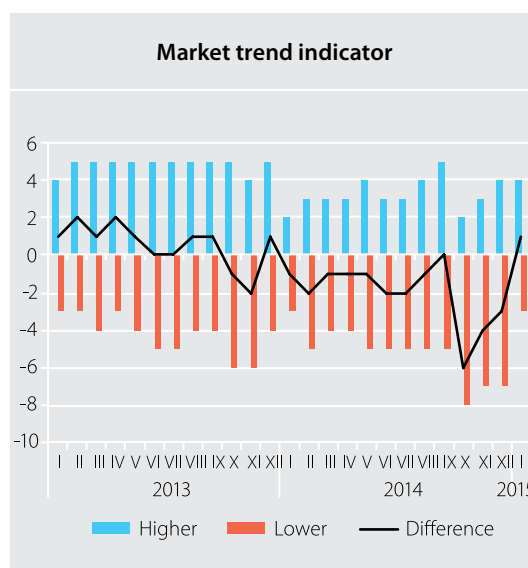
When it comes to inflation expectations of banks, based on a survey conducted in January 2015, three banks expect inflation in the range of 1% - 1.5%, two banks expect inflation between 0% - 0.5%, 0.5% - 1%, 1.5% - 2% and 2% - 3%, one bank expects inflation to range between -0.5% and 0%, while no bank expects inflation of more than 3%.

For the purpose of calculating inflation forecasts we use market trend indicator (black line in Graph 9). It is calculated as the difference between the number of banks expecting an inflation growth (blue columns) and the number of banks expecting inflation decrease (red columns). If the market trend indicator has a negative value, a decrease in the inflation rate is expected in the upcoming period. If it has a positive value, 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 its value is, the lower the inflation forecast is, and vice versa, while higher positive value means higher inflation level forecasts. Therefore, Graph 9 shows that inflation expectations, with minor variations, were at a low level throughout 2014.

Graph 8



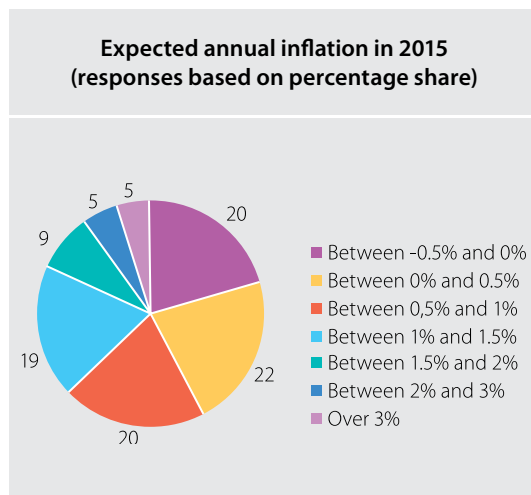
Graph 9



In particular, low inflation expectations were expressed in the last quarter of the previous year when most banks expected decline in inflation. Inflation expectations in January 2015 showed the inflation growth.

2.2. Expectations of Economy (Except Banks)

Graph 10



Inflation

Out of total surveyed companies⁷, the largest number (22%) expected that inflation in 2015 would range between 0% and 0.5%. Some 20% of the surveyed companies expect inflation to range between -0.5% and 0%, and the same percentage of companies expects inflation between 0.5% and 1%. Inflation between 1% and 1.5% is expected by 19% of surveyed companies, while 9% expected inflation between 1.5% and 2%. Some 5% of respondents expected that inflation in 2015 will range between 2% and 3%, while the same percentage thinks that inflation will be over 3%.

⁷ In the sample structure, out of 200 largest companies by revenue generated in 2013, trade companies were dominant (47.5%), followed by industry and construction (15%), transportation and storage (8%), accommodation and food, information and communications (by 3.5%), other (agriculture, real estate, and the like) which accounted for 1%.

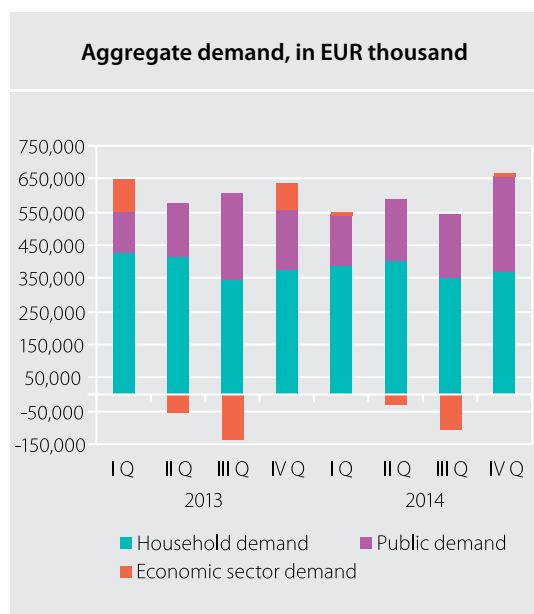
3. INFLATION DETERMINANTS

3.1. Demand

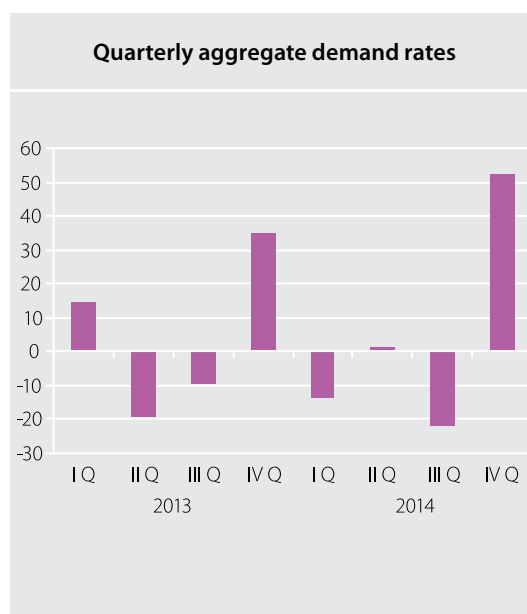
According to available data, the highest level of aggregate demand during 2014 was recorded in the fourth quarter, which is a typical phenomenon, considering that arrears are paid by companies and budget at the year-end. Total demand in Q4 2014 was somewhat higher than the demand shown in Q4 2013. Observing the structure of total demand in Q4 2014, compared to the structure of demand in the Q3 2013, the share of household demand is slightly reduced. Economy reduced, while public spending in the total structure increased in Q4 2014.

The level and rate of aggregate demand in Q4 2014 were higher than in the previous three quarters, as well as compared to the level recorded in the last quarter of the previous year.

Graph 11



Graph 12



Box 1 - Aggregate demand calculation methodology

For the purpose of complete monitoring of aggregate demand as the inflation determinant, the CBCG has developed the aggregate demand calculation methodology. The starting point of this methodology stems that the aggregate demand is the total demand of three sectors: (household) personal consumption, (corporate sector) investment consumption, 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 selling shares, non-market incomes, non-observed 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 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)

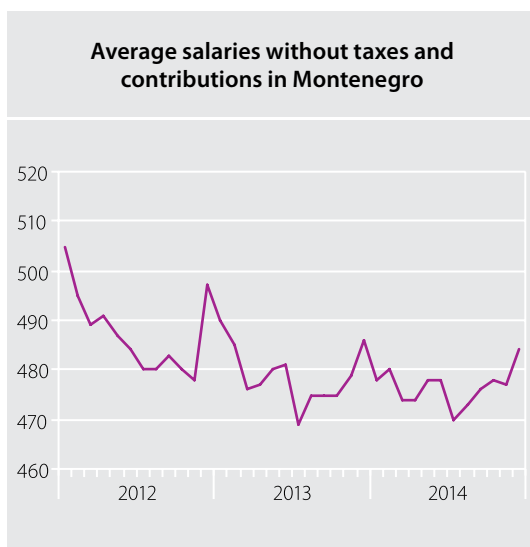
G = public consumption – paid pensions – salaries paid from the budget – net savings by the Government (deposits – loans – Treasury bills)

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

3.1.1. Salaries and other Available Demand Determinants

The average salary in Montenegro in 2014 amounted to 723 euros and was 0.4% lower than the average wages from the previous year. The average wage without taxes and contributions amounted to 477 euros and in comparison to the previous year was 0.4% lower. Real wages without taxes and contributions in 2014 were 0.3% higher compared to the average wages without taxes and contributions from 2013.

Graph 13



Source: Monstat

Graph 14



Source: Monstat

Observed by months, the highest nominal decline of wages without taxes and contributions was recorded in January (-1.6%) and July (-1.7%). The highest nominal growth of wages without taxes and contributions was recorded in December (1.5%), while the lowest nominal growth with an identical rate of 0.4% was recorded in February and October.

Taking into account the consumer prices, i.e. trends in wages in real amounts, it can be concluded that real salaries reported the highest growth in December, while the highest real decline was reported in March and July.

Households' loans reported positive trend in 2014. The average monthly growth of loans granted to this sector was 0.1%, while the growth at the average rate of 0.7% was recorded in 2013. Total banks' loans and other receivables from the household sector amounted to 893.8 million euros at 2014 year-end, which indicated a growth of 12.5 million euros or 1.4% in relation to 2013 year-end.

The average indebtedness of this sector grew over the one-year period. Thus, per capita debt amounted to 1,438 euros at end-December 2014, and it was 20 euros or 1.4% higher than at end-2013.

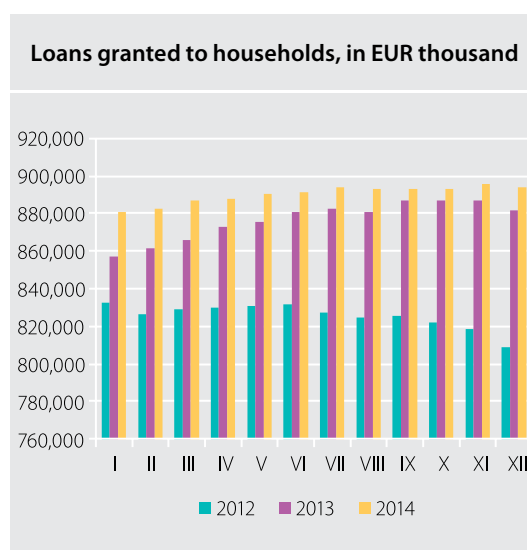
Debt to micro-credit financial institutions amounted to 36.1 million euros at end-2014 and was 2 million or 6% higher than a year ago.

Household deposits were mainly on an uptrend in 2014 and they recorded an average monthly growth of 0.6% (an average monthly growth of 0.6% was recorded in 2013). Deposits of this sector amounted to 1,331.8 million euros at end-2014, which represented a y-o-y increase of 94.3 million euros or 7.6%.

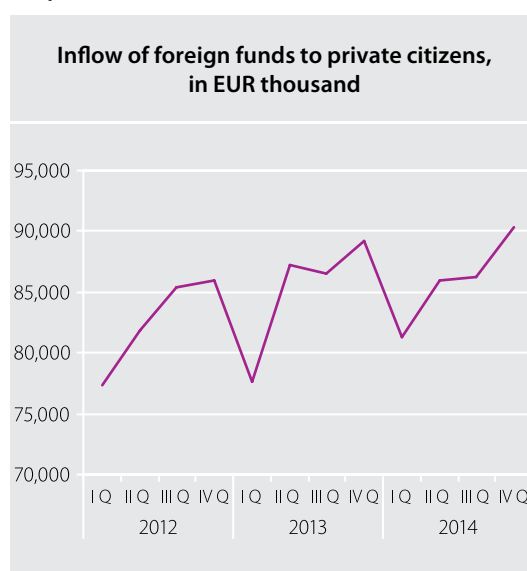
Loans to deposits ratio for this sector amounted to 0.67 at end-2014. It was at a lower level than in the previous year (0.71). Households' sector reported total net savings in the amount of 438 million euros, which represented a y-o-y increase of 81.8 million euros or 23%.

The balance of payment statistics showed that the y-o-y increase was recorded in the inflow of cash based on foreign remittances in favour of

Graph 15

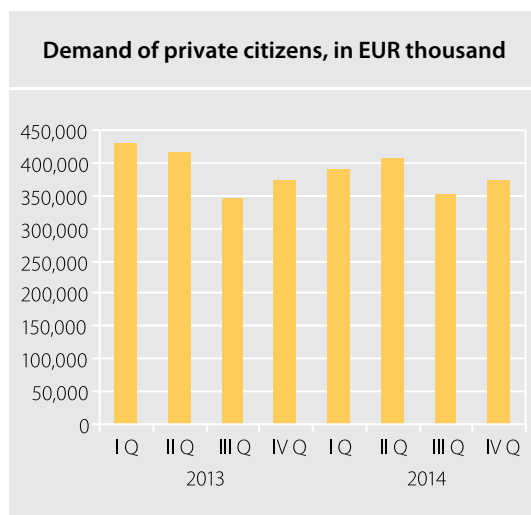


Graph 16



Source: CBCG

Graph 17



domestic natural persons, salaries and compensations to employees as well as on other personal transfers.

According to preliminary figures, the total demand of the household sector in Q4 2014 was lower compared to the level of demand for the same quarter in 2013, as well as in relation to the level of demand in the first two quarters of 2014, while the level was slightly over the demand of households in Q3 2014.

3.1.2. Public Sector Demand

Montenegrin public finances⁸

According to the Ministry of Finance preliminary data, **public consumption** in 2014 amounted to 1.61 billion euros or 47.3% of the estimated GDP⁹. Compared with the previous year, public expenditures were higher by 1.2%, whereas anticipated amount was exceeded by 141.8 million euros or 9.7%. Such a drastic increase in expenditures is explained by the increase of the state share in the ownership of the Electric Company of Montenegro (on this basis there was an increase in capital expenditure item in the current budget), and by methodological reclassification of repayment of liabilities from the previous period, as well as unplanned repayment of guarantees in the amount 18.5 million. The achieved level of public consumption was financed by income from taxes (950.1 million euros), contributions (444.3 million euros), fees (71.5 million euros), duties (20.8 million euros), other revenues (43.3 million euros), receipts from loan repayment (21.4 million euros) and donations (9.1 million euros).¹⁰

Current public consumption (public consumption reduced by capital expenditures) amounted to 1.48 billion euros or 43.7% of GDP and it grew y-o-y by 1.3%, while capital budget amounted to 124.5 million euros or 3.7% of GDP.

⁸ The structure of Montenegrin public finances comprises of the Budget of Montenegro with the State funds (Pension and Disability Fund, Health Insurance Fund, Compensation Fund, Employment Agency and Labour Fund) and local government budgets (Old Royal Capital of Cetinje, Capital of Podgorica and 21 municipalities).

⁹ Estimated GDP for 2014 amounted to 3.393 million euros.

¹⁰ Repayment of liabilities from previous period is now included in the expenditures, and therefore in the calculation of the deficit in 2014, having previously been part of the debt repayment item.

According to individual economic classification, current expenditures accounted for the main share in the structure of public expenditures (47%), followed by transfers (38.7%), capital expenditures (7.7%), while 6.6% referred to other expenditures.

Public revenues were estimated at 1.56 billion euros or 46% of the estimated GDP, being 8.2% higher y-o-y and in relation to the plan. As for the structure of public revenues, taxes accounted for the main share of 60.9%, followed by contributions (28.5%), whereas the remaining public revenues accounted for 10.6%.

In 2014, according to preliminary data from the Ministry of Finance, there was a **deficit of public expenditures** in the amount of 46.1 million euros or 1.4% of GDP or 114.3 million euros less compared to a deficit at the end of 2013.

Budget of Montenegro

According to Ministry of Finance preliminary data, Budget of Montenegro recorded total revenues amounting to 1.67 billion euros in 2014.¹¹

Source revenues amounted to 1.35 billion euros or 39.8% of estimated GDP, and in relation to the plan, they increased by 5.9%, and they showed a y-o-y increase of 8.7%. Tax revenues recorded the highest share in the structure of current revenues (61.6%), followed by contributions (32.9%), other revenues (2.2%), fees (1.3%), duties (1.1%), receipts from loan repayment (0.5%) and donations (0.4%).

Tax revenues amounted to 833.2 million euros and were 4.4% higher than planned, as well as showing y-o-y growth of 10.3%. The most significant growth compared to the previous year was recorded in VAT based revenues (68.4 million euros), as a result of increased rates, reduction of shadow economy, growth of economic activity and the collection of outstanding tax claims.

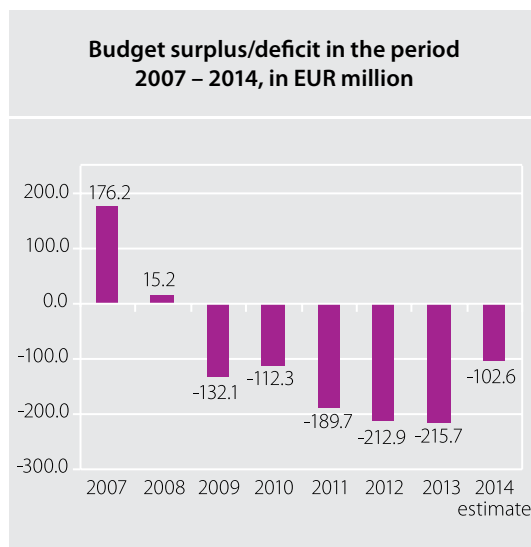
Also, the growth was recorded in the collection of personal income tax (8.8 million euros) compared to 2013. The significant positive deviation is in the collection of corporate income tax (4.4 million euros) compared to the previous year, which is assigned to the Government's encouraging measure which guarantees discount for one-off and legally prescribed deadline for payment of this tax.

On the other hand, the decline was recorded in revenue from excise duties of 5 million euros compared to the previous year and 14.6 million in relation to the plan.

Revenues from contributions amounted to 444.3 million euros and were 46.5 million euros or 11.7% higher compared to the plan for 2014, compared to the same period of the previous year they increased by 45.8 million euros or 11.5%, as a result of increased measures to combat shadow economy at the labour market, but also of the collection of receivables from companies.

¹¹ Revenues include source revenues (direct and indirect taxes and non-tax revenues), borrowings, and revenues from privatization and sale of properties.

Graph 18

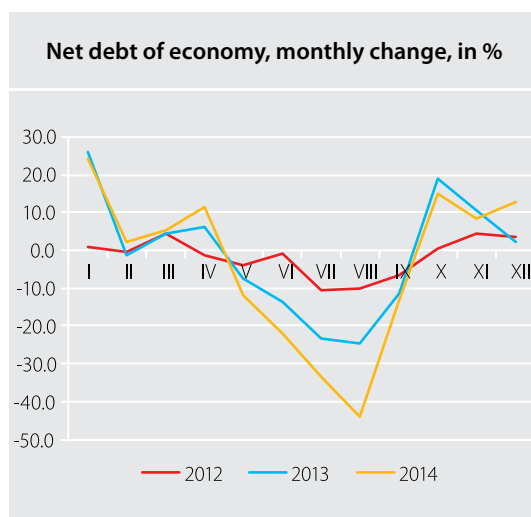


Source: Ministry of Finance

Consolidated budget expenditures amounted to 1.45 billion euros in 2014, or 42.9% of the estimated GDP. In relation to 2013, recorded expenditures increased by 0.7%, exceeding the plan by 9.6%. Current budget expenditures amounted to 691.5 million euros or 9.4% higher than planned. Social protection transfers amounted to 492.1 million euros or 14.5% of GDP. Capital budget amounted to 75.2 million euros or 2.2% of GDP.

Montenegrin **budget deficit** was estimated to 102.6 million euros or 3% of GDP, and it was by 113.2 million euros lower than the deficit recorded in 2013. Debt repayment amounted to 209.7 million euros.

Graph 19



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

Loans and receivables to corporate sector were significantly above the corporate deposits in 2014; therefore, this sector was net debtor also in 2014. Net corporate debt was 277.3 million euros, which was the y-o-y decrease of 118.7 million euros or 30%. Long-term loans accounted for the main share in the structure of loans and other receivables to the corporate sector (75.2%), which indicates that loans to this sector were mainly used for the increase in the volume of economic activity.

3.1.4. External Demand and the Current Account

In 2014, an increase in the current account deficit was recorded, resulting mostly from negative trends at the goods and factor income accounts. According to the preliminary data, current account deficit amounted to 520.4 million euros or 6.9% more in relation to the previous year. The decline in visible trade export, as well as slight import growth had a negative impact on the total current account balance.

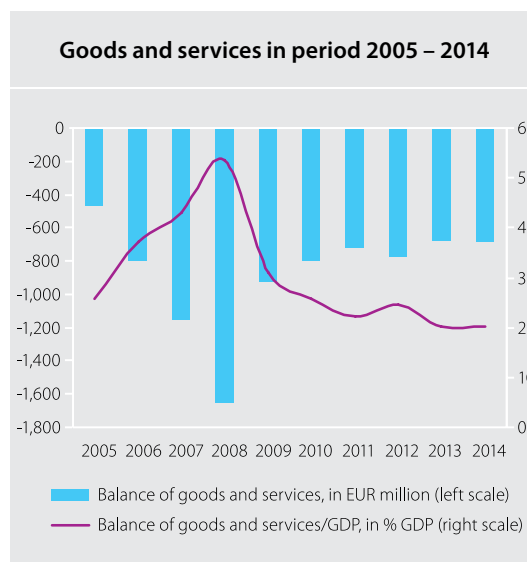
The imports dependence still remains high in international visible trade. According to preliminary data, imports made up 51.1% of GDP in 2014, which resulted in still high foreign trade deficit of 40.4% of GDP amounting to 1.4 billion euros. The growth of foreign trade deficit in the goods account of 3.2% is a result of a decrease in exports of goods and a slight increase in imports compared to 2013. The value of visible trade in 2014 declined by 8.4% and its share in GDP was 10.7%. Such a trend of export was mostly affected by a decrease in exports of electricity (60.5%) and aluminium (10.2%). Export of electricity amounted to 37.8 million euros and accounted for 11.2% of total exports, while exports of aluminium amounted to 71.7 million euros, with the share in the total exports of 21.2%. Total imports of goods amounted to 1.7 billion euros and were by 0.5% higher than in the previous year.

Positive trends were noted at the services account, which resulted in a surplus of 690.4 million or 20.3% of GDP, i.e. showing the y-o-y increase of 5.7%. The realization of the surplus at the services account in 2014 was mostly affected by the increase in tourist demand. Higher tourist demand in 2014 resulted in increased revenues from travel and tourism by 2.5% in relation to 2013. Goods and services account balance was negative and amounted to 20.1% of GDP, which is at approximately at the same level as in 2013.

The surplus recorded on account of primary revenues amounted to 45.9 million euros, which represents a decrease of 30% compared to 2013. The total inflow of primary revenues amounted to 226.1 million euros or 6.7% of GDP, which was 6.3% more than in 2013. The secondary transfers account recorded a surplus amounting to 114.4 million euros or 7.2% less than in same period of 2013.

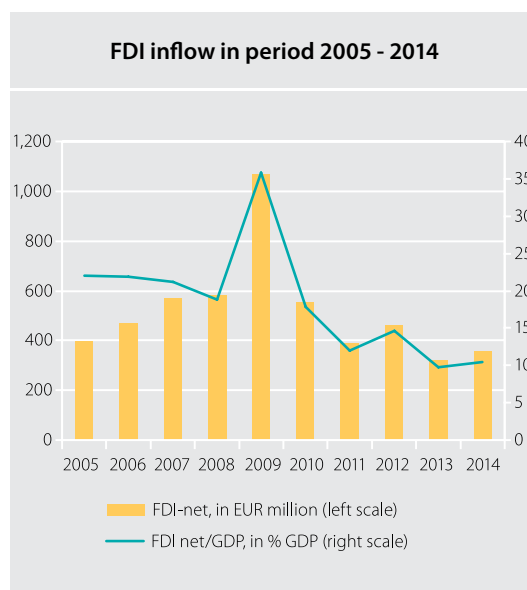
An increasing trend in FDI inflow was recorded in 2014. According to preliminary data, net FDI inflow was realised in the amount of 353.9 million euros in 2014, or 9.3% more in one-year period. Total FDI inflow amounted to 498.1 million euros, of which 16.1% referred to the investments into banks and companies, 36.3% referred to investments in real estates and 46.2% referred to intercompany debt.

Graph 20



Source: CBCG and Monstat

Graph 21

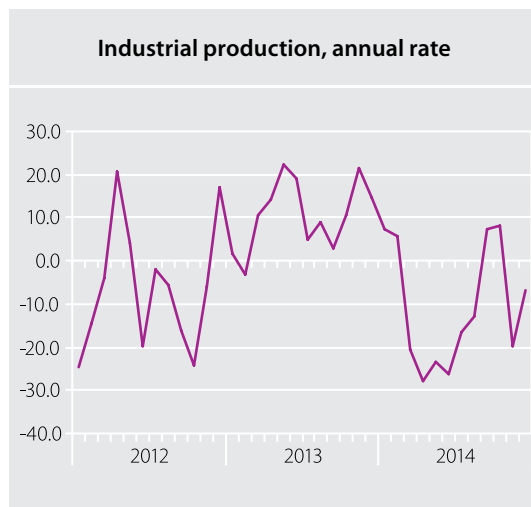


Source: CBCG

3.2. Supply and Production

The industrial output in 2014 recorded decrease of 11.4%¹² in relation to the previous year. Output decline of 19.6% was recorded in electricity, gas and steam supply, while output decline of 6.7% was reported in manufacturing industry. Industrial output growth of 14.4% was recorded in mining and quarrying. Observing monthly data on industrial production, the largest monthly fall was recorded in January (-22.2%), and the highest increase in July (29.2%).

Graph 22



Source: Monstat

Some 1.517.376 tourists visited Montenegro in 2014, which represented the y-o-y increase of 1.7%. The number of domestic tourists' arrivals decreased by 0.3%, while foreign tourists' arrivals increased by 2.0%. Some 9.553.783 overnights were reported, which represented a y-o-y increase of 1.5%.

The total **production of forestry assortments** in 2014 amounted to 308,345 m³ of wood products, which is 17.9% more than in 2013.¹³

The preliminary Monstat data showed that the total value of performed **construction works** in 2014 amounted to 275 million euros, being 2.0% higher than in the previous year, and 4.6% lower when measured by effective working hours.

Air passenger transport recorded an increase of 3.4%, road passenger transport of 10.8% while railway passenger transport increased by 21.7%.¹⁴

In 2014, air transport increased by 12.2%, while railway transport decreased by 13.9% compared to the previous year.

Total turnover in ports was 1.2 million tonnes in 2014 and it showed the y-o-y decline of 4.2%, whereby exports declined by 10.7% and imports increased by 5.5%.

¹² It is a period-to period indicator, while y-o-y decline (December 2014 to December 2013) amounted to 7%.

¹³ This is shown as weighted index, while non-weighted output was 20.7% higher for the same period.

¹⁴ Due to changes in methodology in the first quarter of 2014, road goods transportation is calculated according by the new survey so that interruption in the time series occurred.

4. MONETARY POLICY

The Central Bank of Montenegro is responsible for monetary policy, fostering and maintaining the financial system stability and fostering and maintaining a sound banking system and safe and efficient payment systems. One of primary CBCG monetary policy objectives is contributing to achieving and maintaining price stability in the country.

The Central Bank of Montenegro Law (OGM 40/10, 46/10 and 6/13) sets out the following primary CBCG monetary policy instruments: open market operations, credit operations, lender of last resort, reserve requirements. However, it should be stated that all available monetary policy instruments of the CBCG have very limited impact on inflation trends.

In late 2014, the Decision Amending the Decision on Bank Reserve Requirement to be Held with the Central Bank of Montenegro (OGM 57/14) was passed. This Decision enables the banks to allocate 35% of the reserve requirement in the form of Montenegrin T-bills with maturity up to 182 days.¹⁵

4.1. Monetary Policy Measures for Suppressing Inflation

The Central Bank of Montenegro had not taken any monetary policy measure for suppressing inflation.

¹⁵ 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 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

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 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

With a view to developing a fan chart, an ARIMA (Autoregressive Integrated Moving Average) model was developed of time series of inflation of Montenegro showed through the Consumer Price Index.¹⁶

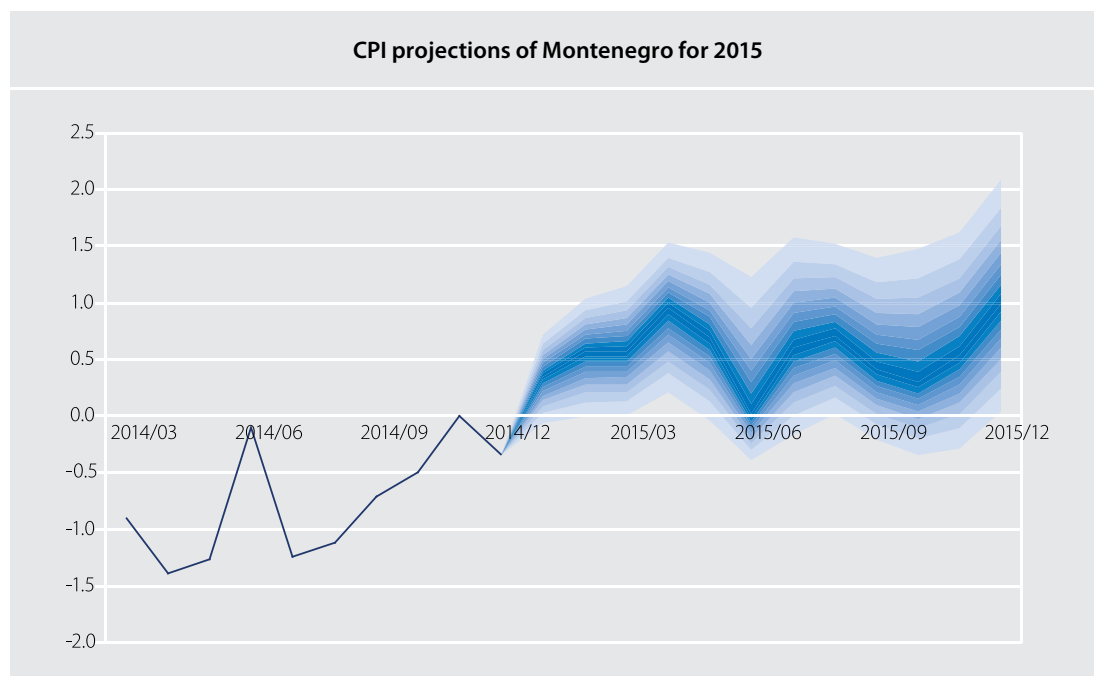
¹⁶ More detailed of the ARIMA model for Montenegro is represented in the Working study of the CBCG NO. 11 "Inflation Forecast": Empirical research trends of retail price index of Montenegro for 2007 - Implementation of ARIMA models.

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, 22), ARIMA has sufficient confidence level for forecasts.¹⁷

The monthly forecasts value was used as the value of central projection of the CPI graph for 2015. 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 0.57. Value of the obtained model varied between 0.5 and 1.2, while standard deviation values were 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 above central “the deepest shade of blue” 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.¹⁸ The fan chart has an equal number of bands (eight) on either side of the central band whereby every band is of the same colour, 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 23



Source: CBCG, 2015

¹⁷ 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.

¹⁸ The mode value (central projection) is, by construction, always 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 shows, with a **90% probability that, depending on month, CPI inflation will vary between -0.5% and 2%. The inflation at end-2015 is forecasted between 0% and 2%.** The central projections of the *Fan Chart* that refer to the thickest part of the graph, shows the probability range of 10% (Graph 23).

Starting inflation forecasts for 2015 are the following:

1. Increase of geopolitical tensions might stimulate growth of energy prices;
2. Unfavourable weather conditions might result by expressed growth of food row material prices;
3. The adoption of the Law on Amendments to the Law on Excise Duties, will gradually increase the excise duties on tobacco, alcoholic beverages and carbonated drinks;
4. Introduction of fees on retail fuel prices;
5. Increase in electricity prices by 5% (including foreseen growth in August 2014);
6. Growth in investments and more intensive economic activity in 2015;
7. Stagnation in real estate prices.

Reasonably, deviation of any of the abovementioned parameters would require the correction of the forecast.

5.2. Expert Assessment

Taking into account insufficient reliability of statistical data, insufficiently long time series, and often the presence of one-off shocks, the CBCG complements the model assessment with the expert assessment on inflation.

In 2014, we had negative inflation rate, as a result of the decline in energy prices, prices of a range of food products, as well as purchasing power. Negative inflation rate was not specific only for Montenegro, but also for the EU as well as for the region.

The level of aggregate demand was on an uptrend in relation to the previous quarter, as well as in relation to Q4 2013. However, we believe that we should expect inflationary pressures, because at the global level slow economic growth remains present and all forecasts point to the low inflation trend in the EU and the region. Market trend indicator points to growing inflation expectations, which primarily should be interpreted as a way out from the negative inflation rate.

The largest number of surveyed banks expected inflation rate in the range from 1% to 1.5%, while the largest number of surveyed entrepreneurs expected inflation from 0% to 0.5%. In 2015, acceleration in GDP growth is expected and it will have an anti-inflationary impact.

Model-based estimation of inflation, as well as the expectations of bankers and businessmen, are indicating a low positive inflation rate. Montenegro's inflation *Fan Chart* based on the ARIMA model projection for 2015 shows, with a 90% probability that CPI inflation will vary from 0% to 2%.

Our expert assessment is very similar to the model-based assessment according to which the inflation in 2015 will vary from -0.5% to 2%.

Table 3

Estimated inflation rate at end-2015		
Optimistic assessment	Realistic assessment	Pessimistic assessment
-0.5%	1%	2%

This 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.

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