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1. INTRODUCTION

With a view to following contemporary trends in monetary policy, in mid-2005, the Central Bank of Montenegro initiated the publication "Inflation Report". The number of central banks that publish this report is continuously increasing. Many European central banks and those implementing the inflation targeting policy publish this kind of report. One of the most important tasks of this report is to point to the factors influencing the prices movements, as well as to forecast future inflation movements. Most of the countries use model assessments in inflation forecasting and some countries use expert assessments. Bearing in mind that many statistical data are not available, that majority of available data have short time series and a part of data is not reliable, we decided to combine model and expert assessments.

Global movements of inflation and economic performances were mostly affected by the financial crisis, as well as prices movements of the stock exchange products (oil derivatives, basic metals and other). In such an environment, the majority of central banks made mistakes in forecasting inflation and performed one or more revisions of their own forecasts. Our forecasting model as of the beginning of this year is still valid, that is, there was no need for the model revision although the level of uncertainty increased.

2. INFLATION INDICATORS¹

Annual inflation rate in 2008, measured by CPI, amounted to 6.9%, while the costs of living recorded a growth of 7.2% at the annual level. Costs of living increased by 0.76% in the fourth quarter of 2008 and recorded a slight decline in relation to the third quarter (0.99%). After reaching the highest annual level in June (11.4%), costs of living started to decrease, declining to 7.2% in December. Over the period October – December 2008, the prices of goods recorded an increase of 0.82%, while the prices of services increased by 0.23%.

The prices of food products experienced a high increase in the fourth quarter: fresh and processed vegetables (11.6%), fresh and processed milk (7.05%), as well as fresh and processed meat (0.95%). The prices of fresh and processed fruit recorded a decline of 12.32%, as well as the prices of fats (13.22%), the latter being the food product category with the highest decline in prices in the fourth quarter. Throughout the year, the prices of food products in monthly terms (excluding June, July and October) recorded a growth exceeding the cost of living growth.

Consequently, the share of food in the fourth quarter exceeds the total inflation rate. The total inflation growth at 0.61% in the fourth quarter was influenced by the increase in electricity price (10.08%) in December. This “price shock” was alleviated by the prices of liquid fuels and lubricants (-23.72%), which had an impact on the decrease of prices of the “transport and PTT” category by 9.58%, which make up almost 10% of the weighted mass. That absorbed the over-increase of prices of food products and electricity within the overall inflation structure.

The annual **core inflation rate** recorded a growth of 7.99% in December, and was insignificantly higher than the total annual inflation rate (by 0.76 percentage points). The core inflation that excluded certain products (food products and administratively regulated products) gradually increased during the year. In January 2008, the annual core inflation rate amounted to 2.55%, in June 5.18% and in December it recorded a growth of 7.99%. Such a high rate reflected the price growth of almost all major categories of food products (cereal, meat and processed meat, milk and processed milk products), as well as the services.

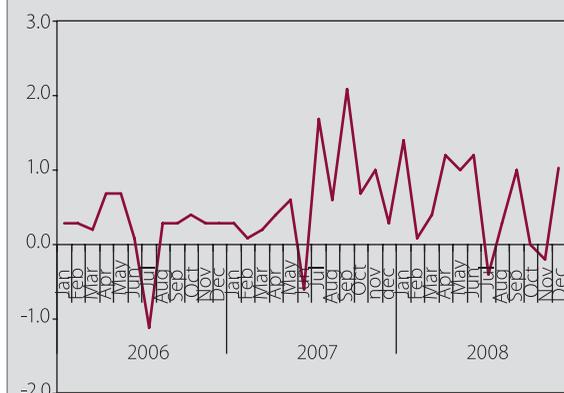
Table 1 – Inflation, %

	2007				2008			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Change to end of the previous year	0.6	1.1	5.5	7.7	2.0	5.4	6.4	7.2
Annual change	2.4	1.6	6.5	7.7	8.2	11.4	8.5	7.2

Source: Monstat

¹ Inflation rates in July 2007 are overestimated, due to the methodological error which Monstat made while calculating the price of electricity.

Graph 1 – Cost of living, monthly growth rate

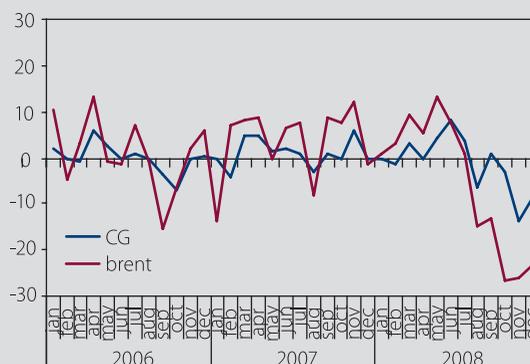


Source: Monstat

The price of the oil reference basket, which in the fourth quarter amounted to 52.51 USD/barrel, recorded a drop by 53.74% in relation to the average price in the third quarter. The slowing down of the global economy resulted to the reduced demand for energy products, which reflected on a drastic fall in the price of oil. The price of the reference basket, amounting to 131.22 US\$/barrel in July, decreased to 38.6 USD/barrel in

December 2008. The average price of the “Brent” oil in the fourth quarter amounted to 54.91 USD/barrel, and the lowest price was recorded in December (40.35 USD/barrel). The decrease was due to the weakening of U.S. economy and reduction of demand for this product in leading consumer countries.

Graph 2 - Oil prices, monthly growth rate



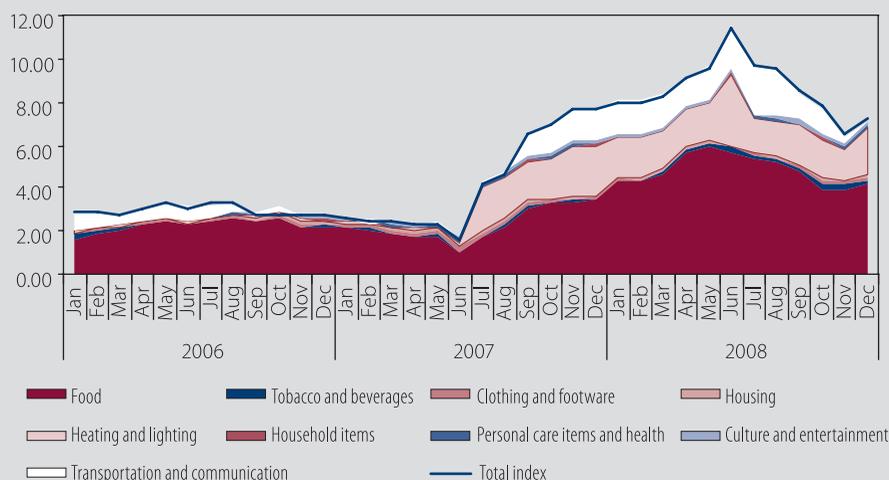
Source: Monstat and “Monthly Oil Market Reports”, OPEC

Table 2 – Share of individual categories in total inflation

	weight	XII'08/IX'08	growth rate	contribution	share in total inflation
TOTAL	10.000	100,76	0,76	0,76	100,0
Food	5.046	101,58	1,58	0,80	104,9
Tobacco and beverages	694	100,40	0,40	0,03	3,7
Clothing and footwear	845	100,62	0,62	0,05	6,9
Housing	1.259	106,19	6,19	0,78	102,5
Electricity	605	110,08	10,08	0,61	80,2
Hygiene and health	712	100,98	0,98	0,07	9,2
Education and culture	460	99,61	-0,39	-0,02	-2,4
Transportation and telecommunication	984	90,42	-9,58	-0,94	-124,0
Liquid fuels and lubricants	400	76,28	-23,72	-0,95	-124,8
Goods	8.994	100,82	0,82	0,74	97,0
Services	1.006	100,23	0,23	0,02	3,0

Source: Monstat and CBM calculations

Graph 3 - Components of cost of living index: contribution to annual growth rate (index points)



The annual cost of living rate in December 2008 increased by 7.2%, and was significantly lower than the highest rate recorded in June (11.36%). It was also lower than the annual rate from December 2007 by 0.5 percentage points. The annual increase was mostly affected by the growth of food prices (8.2%), heating and lighting (29.6%), education services (6.2%), and transportation and postal services (5.3%). Observed annually, prices of goods recorded a growth of 7.23%, and in total annual inflation accounted for 89.9%, while the prices of services increased by 7.27 and accounted for 10.1% in total inflation. The annual rate of consumer prices increased by 6.9%.²

In the fourth quarter, **retail prices** decreased by 0.6%, compared to the previous quarter. Industrial non-food products recorded a decline of 1.7%, while industrial food products prices went up by 0.01%. Prices of goods and services increased by 5.8% and 13.4%, respectively. Observed at annual, retail prices increased by 7.3%.

Producer prices of manufactured products decreased by 5.96% in the fourth quarter, in relation to the previous quarter. In the same period, prices in processing industries dropped by 11.66%, while the electricity price increased by 7.1% and ore and stone extraction prices by 0.1%. The annual growth rate of producer prices of manufactured products amounted to 7.1%.

Graph 4 - Cost of living, annual growth rate

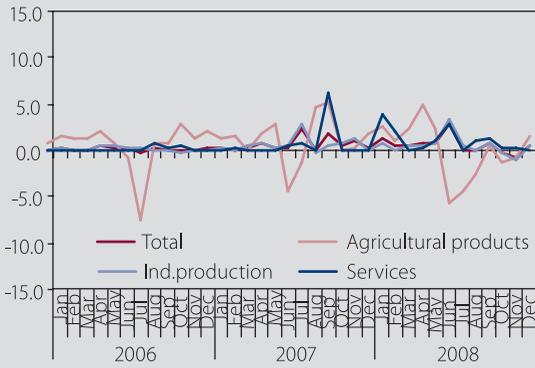


Source: Monstat

Annual inflation in Eurozone amounted to 1.6% in December, and the components with the highest growth rates are housing (3.6%), alcohol drinks and tobacco (3.5%), hotels and restaurants (3.3%), while transportation services recorded a drop by 2.5%. Inflation in Bulgaria, Estonia, Lithuania, Serbia and Latvia was higher than inflation recorded in Montenegro (6.9%).

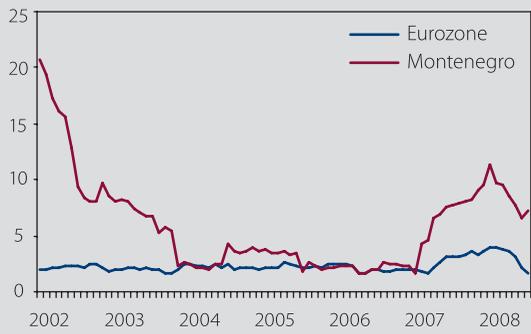
² In July 2008, Monstat published CPI which represents internationally comparable inflation measurement.

Graph 5 - Retail prices, monthly growth rate



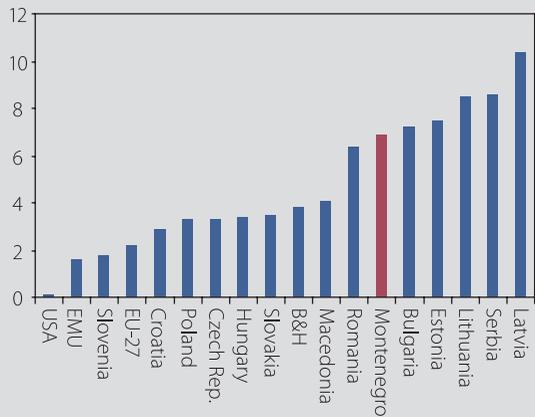
Source: Monstat

Graph 7 - Inflation in Eurozone and Montenegro since introduction of euro (annual rates)



Source: Monstat and Eurostat

Graph 6 - Annual inflation rate in selected countries, September 2008



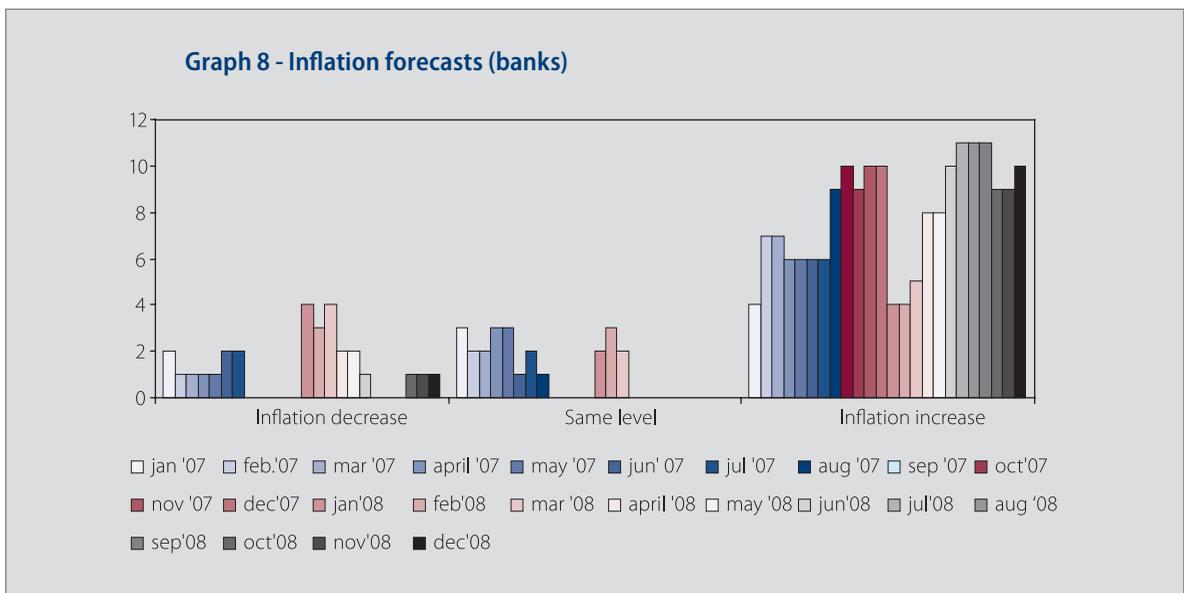
Source: National Statistical Offices and Eurostat

3. INFLATION FORECASTS

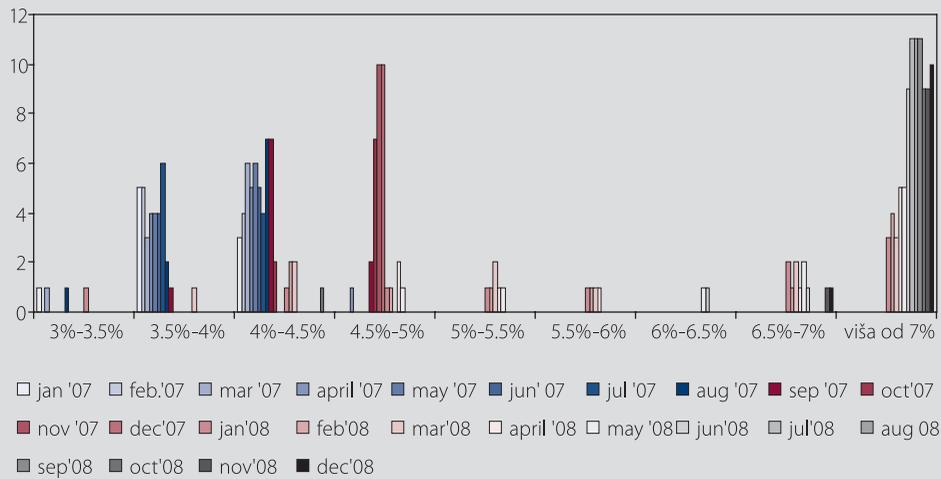
3.1. BANKS' EXPECTATIONS

With respect to inflation forecasts, the banks have not significantly changed their opinion in December 2008 in comparison to the end of the third quarter. Ten banks expected higher inflation rate (it was all 11 banks in September) in relation to the previous year (Graph 8).

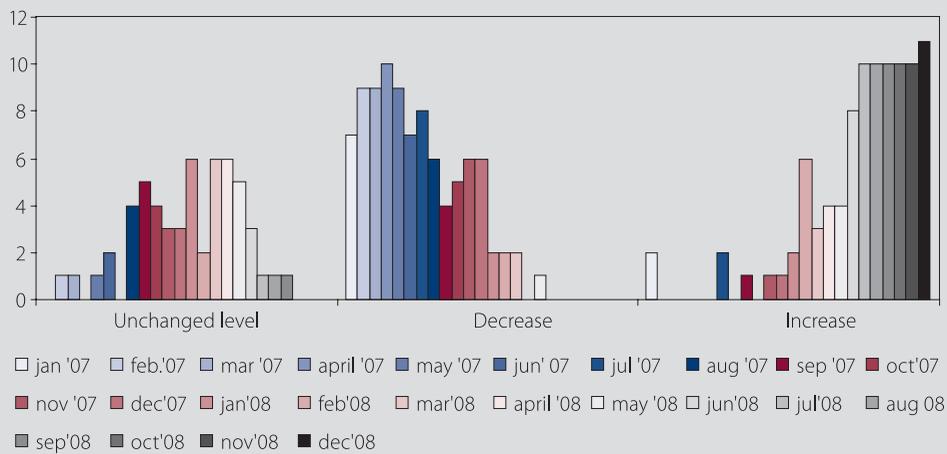
Ten surveyed banks forecasted the inflation rate to be higher than 7%, and only one of them forecasted the range from 6.5 to 7%.



Graph 9 – Forecasted inflation rate level (banks)



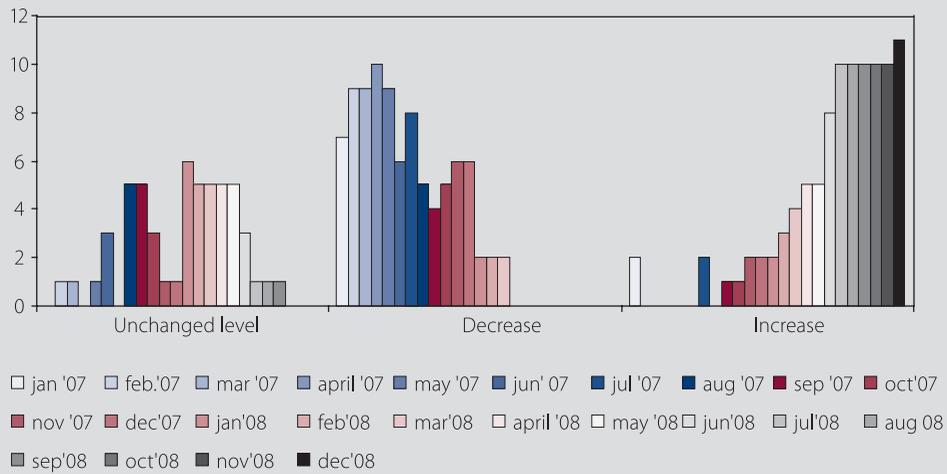
Graph 10 – Nominal interest rate movement forecasts



As for the nominal interest rate trends, all 11 banks expected upward trend in the following year (Graph 10). The banks gave the same answer concerning the expectations on the movement of effective interest rates (Graph 11). Concerning the expectations on the movement of deposit interest rates, all banks expected increase of deposit interest rates in 2009 in relation to 2008.

For the purpose of calculating inflation forecasts we use market trend indicator (black line in Graph 12). It is calculated as the difference between the number of banks expecting an inflation increase (blue columns) and the number of banks expecting an 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, then an unchanged inflation rate can be expected in the upcoming period. The more negative value, the lower inflation forecast, and vice versa.

Graph 11 – Effective interest rate movement forecasts



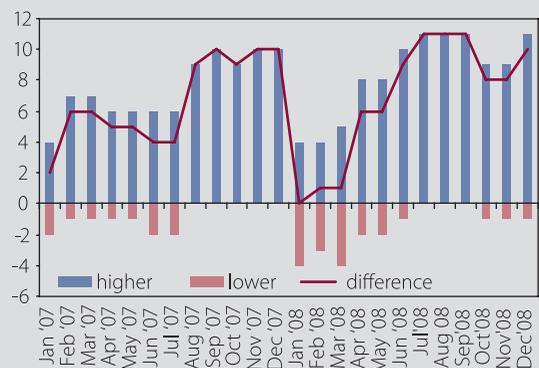
The graph clearly shows that the inflation forecasts in the last quarter of 2008 had a downward trend in October and November, to reach a high level again in December, as it was at the end of 2007.

3.2. EXPECTATION OF ECONOMY (EXCEPT BANKS)

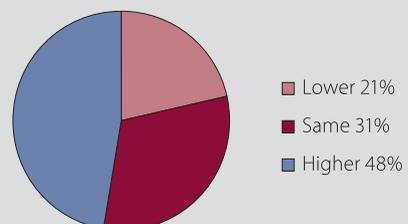
Inflation

The company survey showed that 48% of companies expect a rise of inflation, 31% believe that it will stay at the same level, while 21% expect lower inflation rate in 2009, in relation to 2008. In addition, 51% of surveyed companies believe that inflation in 2009 will be higher than 7% (in the third quarter, 81% of surveyed companies believed that inflation will be higher than 7%). 38% of surveyed companies expect higher salaries for their employees by the end of 2009, 50% expect the same level and only 12% expect lower salaries. The majority of surveyed companies (41%) expect higher value of prices of the production inputs which they use, while 57% of those companies expect the same level of prices of their products (services). Interestingly enough, 45% of the surveyed companies believe that the number of employees will not change, 43% that it will increase and only 12% that it will decrease in 2009.

Graph 12 – Market indicator

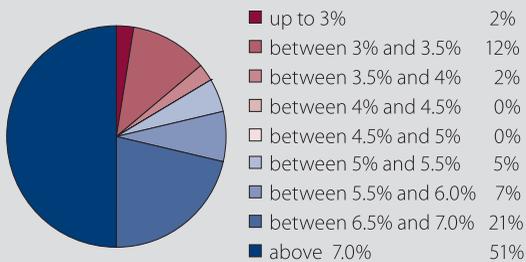


Graph 13 - Forecasted inflation in 2009, in relation to 2008 (responses by percentage ratio³)

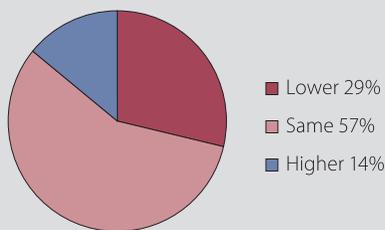


³ Responses to all questions from the survey on companies are presented as share, which hereinafter will not be specially indicated.

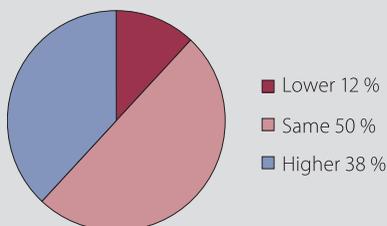
Graph 14 – Forecasted inflation in 2009



Graph 18 – Expected price level of products (services) by end-2009



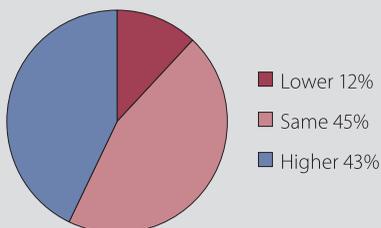
Graph 15 – Expected level of salaries by end-2009



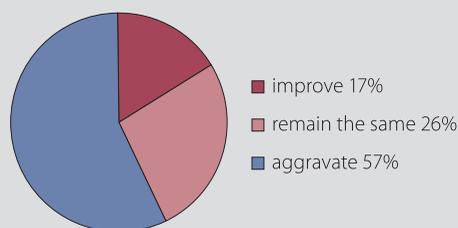
Business environment

The survey results show that most of surveyed enterprises (57%) expect aggravation of business environment. Unchanged business environment was expected by 26%, whereas 17% expect the improvement of the business climate by the end of 2009. At the same time, 10% of surveyed companies expect lower level, 26% the same, and 64% of surveyed companies expect higher level of lending interest rates in 2009 compared to 2008. When business barriers are concerned, most surveyed companies see as obstacles the general operational risks (34% of enterprises), weak demand (29%), and high lending interest rates (16%).

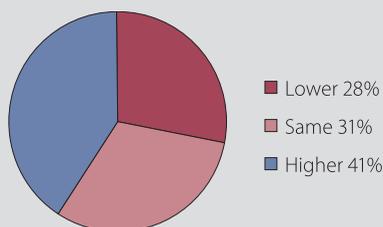
Graph 16 – Expected number of employees by end-2009



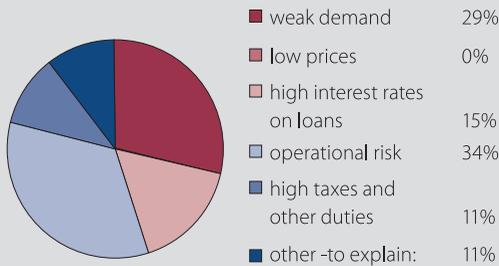
Graph 19 – Expected business climate in 2009 compared to 2008



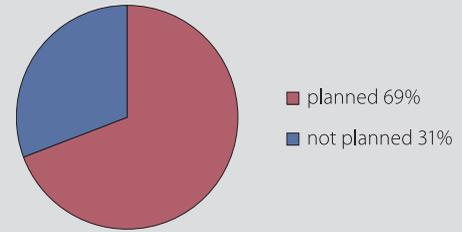
Graph 17 – Expected price level of production inputs by end-2009



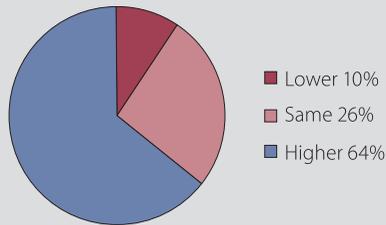
Graph 20 – Business barriers



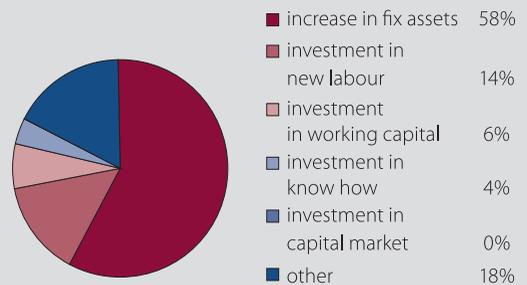
Graph 23 - New investments by the end of 2009



Graph 21 – Expected level of lending interest rates in 2009 compared to 2008



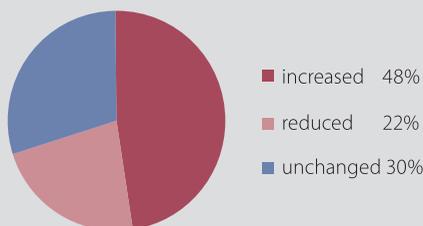
Graph 24 - Type of planned investments by the end of 2009



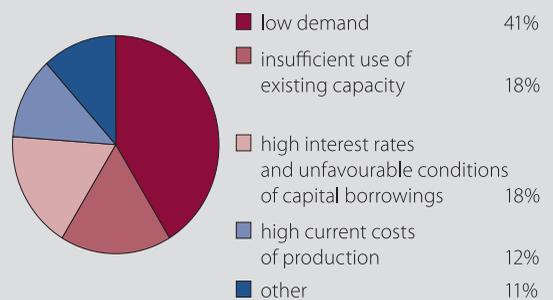
Investments

Of total surveyed enterprises, 48% plan to increase the volume of activities by the year-end, that is, 69% of surveyed enterprises plan new investments. Most investments relate to increase in fixed assets (58%), and low demand and insufficient use of existing capacities are described as the largest obstacle to new investments.

Graph 22 - Expected volume of activities by the end of 2009



Graph 25 - Obstacle to new investments by the end of 2009

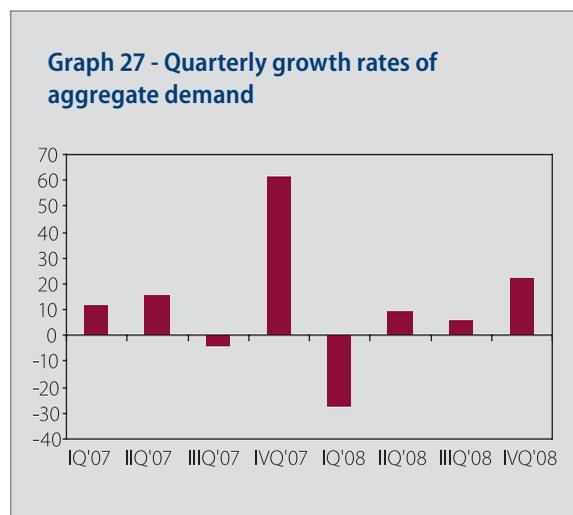
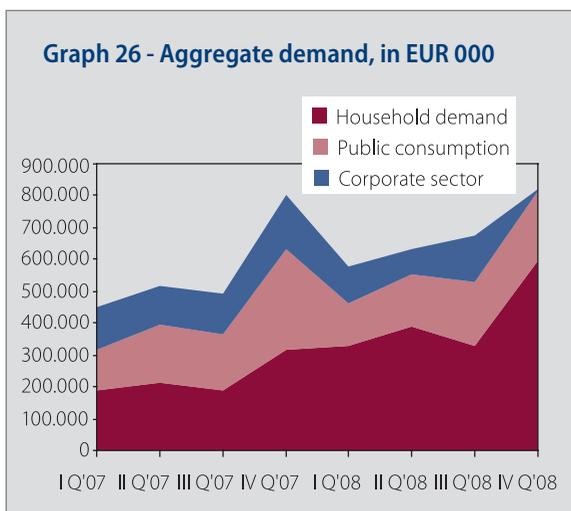


4. INFLATION DETERMINANTS

4.1. DEMAND

It is quite usual that the aggregate demand is the highest in the last quarter, due to payment of various arrears by companies and the budget. The increase in household demand was evident in the fourth quarter, in relation to the third quarter, as in the previous year, mostly because of increased pensions, payment of outstanding benefits to the unemployed and foreign remittances. In the total structure of demand, the share of public consumption is prevailing.

The rate of increase of aggregate demand in the fourth quarter 2008 was higher than the growth rate in the third quarter, but significantly lower than in the fourth quarter last year.



Box 1- Methodology of calculating the aggregate demand

With a view to following up aggregate demand as an inflation determinant more completely, the CBM has developed the methodology for its calculation. The starting point of the methodology is that the aggregate demand is the sum of demand of three sectors: personal consumption (households), investment consumption (corporate sector) and public consumption. However, bearing in mind the lack of a large number of data needed for calculating the aggregate demand, the existing data shall not be treated as an indicator of an accurate amount of the aggregate demand, but as an indicator in which direction the aggregate demand is going in. A range of significant data like corporate sector investments, revenues from the sale of shares, non-market income, revenues from grey economy and alike is not available in this methodology. The methodology for calculating the aggregate demand is given in the following equation:

$$AD = C + I + G$$

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

I = net savings of corporate sector (deposits-loans)

G = public consumption - paid pensions - salaries paid from the budget - net savings of government (deposits-loans-T-bills)

AD = aggregate demand, **C** - personal consumption, **I** - investment consumption, **G** - public consumption

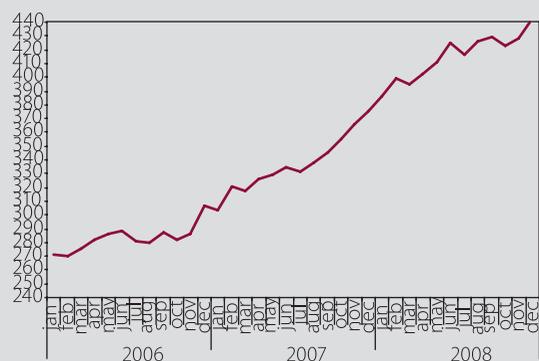
4.1.1. MOVEMENT OF SALARIES AND OTHER AVAILABLE DEMAND DETERMINANTS

Average salary in Montenegro in the third quarter amounted to EUR 634 and recorded a growth of 1.9% compared to the third quarter, and 17.7% compared to the fourth quarter 2007. Average salary without taxes and contributions amounted to EUR 431, with the increase recorded in all the three months. In relation to the previous quarter, average salary without taxes and contributions increased by 1.8%. A slightly more significant monthly growth (3.5%) was registered in December in relation to November, as the consequence of usual payments of outstanding amounts at the end of the year.

If we take into account the costs of living, i.e. if we observe the movement of salaries in real terms, it can be concluded that real salaries in the fourth quarter grew in November and December, whereas in October they declined.

Total amount of loans granted to households at end-September this year amounted to EUR 1.032 million, which was by 30% more compared to end-2007, but also by 1.7% less compared to the third quarter-end in 2008. Average monthly growth rate of loans granted to households in 2008 amounted to 2.2%, which pointed to slower growth than in

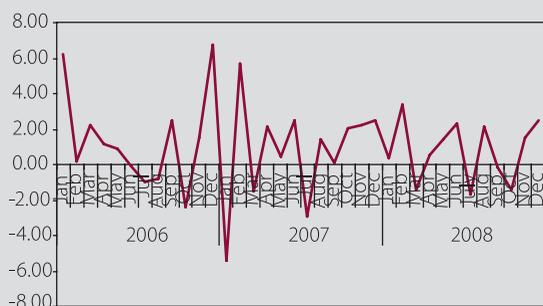
Graph 28 - Average wages without taxes and contributions in Montenegro



Source: Monstat

2007, when it was 8.1%, which is the result of credit growth restriction measures imposed by the Central Bank.

Graph 29 - Real wages (monthly growth rate)

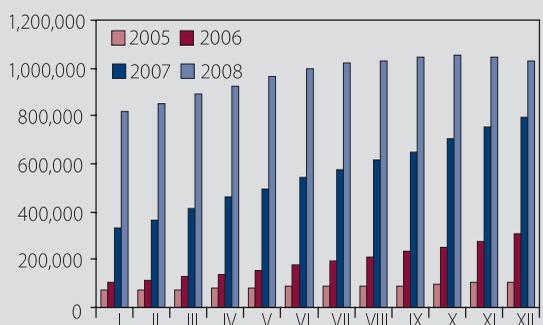


Source: Monstat

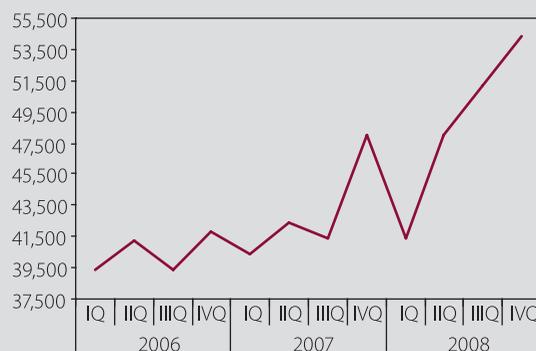
The balance of payments statistics show that the inflow of funds from abroad to natural persons in the fourth quarter 2008 was 6.1% higher compared to the previous quarter, which was mostly contributed by the increased inflow from remittances from abroad, as well as inheritance, gifts and aid, and employees' salaries and compensations.

Observing the total demand of household sector by quarters, a significant increase in demand is noticeable in the fourth quarter, compared to the same period of the previous year, and in relation to all the three previous quarters.

Graph 30 - Loans to households, in EUR 000



Graph 31 - Inflow of funds from abroad to households, in EUR 000

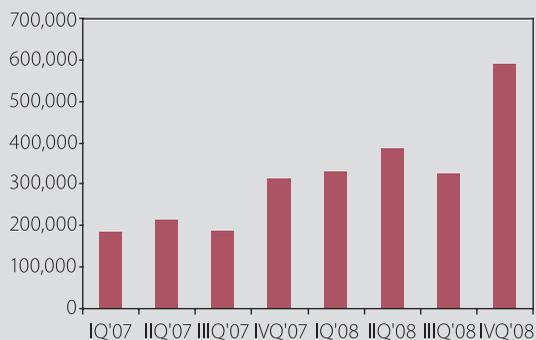


Source: CBM

In addition to household debt to banks on the basis of loans, their debt to microcredit financial institutions, to which they owed EUR 74.8 million at the end of 2008, also increased by 43.3% compared to the previous year-end.

At end-2008, household deposits amounted to EUR 835 million, i.e. they declined by EUR 184.4 million or 18.1%, compared to the previous year-end. This decline is the result of the lack of trust by population, as a consequence of the global financial crisis and reflection of its effects on Montenegrin economy. At end-2008, the loans/deposits ratio for this sector amounted to 1.24 (0.78 at end-2007). Net debt of households to banks was EUR 197 million at end-2008.

Graph 32 - Household demand, in EUR 000



4.1.2. BUDGETARY ANALYSIS

Consolidated public consumption

According to the preliminary data of the Ministry of Finance, consolidated public consumption in 2008 amounted to EUR 1,464.6 million or 43.9% of estimated GDP. In relation to 2007, they were higher by 26.1%, but only 1% below the target. The achieved level of public consumption was financed from tax revenues (EUR 914.2 million), contributions (EUR 340.6 million), compensations (EUR 151.5 million), fees (EUR 34.3 million), other sources (EUR 67.6 million) and loan repayments (EUR 7.2 million).

Total current public revenues⁴ amounted to EUR 1,515.4 million or 45.4% of estimated GDP for 2008. Current public revenues in 2008 were as targeted, but they increased by 13.1% compared to the previous year. The increase in current public revenues was the result of an evident growth in tax revenues, contributions, compensations and various fees.

In the structure of public revenues, revenues from taxes are dominant with the share of 60.3%, as well as revenues from contributions with the share of 22.5%, while other revenues contributed 17.2%.

The increase of public expenditures was the result of increased capital expenditures of the Budget of Montenegro and budgets of local governments, social transfers, current expenditures and granted borrowings and loans. Current budgetary consumption (consolidated public expenditures decreased by capital expenditures of current budget with funds, local government and capital Budget of Montenegro) amounted to EUR 1,215.7 or 36.4% of GDP and exceeded the targeted consumption by 2.7%, which was 24.8% more than in the previous year.

In the structure of public expenditures, current expenditures had the largest share (39.4%), then transfers (38.3%), capital expenditures (17%), while other expenditures accounted for 5.3%. In 2008, public sector achieved a surplus of revenues over expenditures in the amount of EUR 50.9 million, which is 51% more than targeted, but 72% less than in 2007.

Montenegrin budget and government funds

According to the preliminary data of the Ministry of Finance, current budgetary revenues that according to the amendments to the Budget Law⁵ since January 2008 include Montenegrin budget and government funds amounted to EUR 1,304.1 million in 2008.

The structure of budgetary revenues in 2008 indicates a high share of current revenues (98.4%), while revenues from privatization, grants and loans and borrowings from foreign sources accounted for 1.6%.

It is evident that revenues from privatization were lower than planned by 68% (or by 34% in relation to 2007). They amounted to EUR 18.2 million, as a consequence of non-implemented privatization plan. Also, foreign loans and borrowings had a declining trend, dropping by 95% compared to the plan, and 51% compared to 2007. Revenues from grants amounted to EUR 2 million, which is by 150% more than expected.

Current budgetary revenues in 2008 amounted to EUR 1,283 million, or 38.4% of the projected GDP. These revenues were by 2% higher than planned and by 13.8% higher than in 2007.

The increase of current revenues is the result of continuing increase in revenues from taxes, contributions and other budgetary revenues.

Revenues from taxes amounted to EUR 827.7 million, or 64.5% of current revenues, and they grew by 17% in relation to 2007, but were 2.3% lower than planned. The structure of tax revenues in the current year changed so that, in spite of a decrease in tax rates on income of legal and natural persons, revenues from direct taxation significantly increased, though indirect taxes still have a large share (51%) in current revenues, while their share in tax revenues is 79%. In relation to 2007, almost all tax categories recorded a growth, except for real estate tax. Particularly good revenues were achieved from corporate profit tax, which increased by 61%, employee income tax by 31%, excise duties by 27%, VAT by 11%, customs duties by 6.5% and other taxes by 26.5%.

Contributions, as the second largest revenue item in current revenues, amounted to EUR 340.6 million, or 26.5%, increasing by 11% compared to 2007 and by 14.6% compared to the plan, with an evident growth in all categories, as a result of increased number of employed persons and improved financial discipline.

⁴ Total current public revenues include budgetary revenues, government funds and local governments.

⁵ "Official Gazette of Montenegro", No. 12/07

The remaining part of current revenues (9.1% or EUR 114.6 million) referred to fees, compensations, other revenues and receipts from repayment of granted loans. A positive trend was recorded for revenues from fees, which increased by 21%, and revenues from compensations (which increased by 40%). Negative trend and a decrease were recorded for other revenues (by 16%) and receipts from loan repayments (by 29%).

According to the data of the Ministry of Finance, **consolidated budgetary expenditures**⁶ amounted to EUR 1,243.9 million or 37.3% of estimated GDP in 2008. Budgetary expenditures were 21% higher compared to 2007, as a result of increase in capital expenditures, transfers and loans and borrowings granted, but only 1% higher than planned.

In the structure of budgetary expenditures a high share of 40% or EUR 495 million referred to current budgetary expenditures, which is at the level of last year's expenditures, but 1.5% less than planned. The biggest portion of expenditures was spent for gross salaries (55.4%), while other expenditures (rents, interests, cost of material and services, subsidies) accounted for 45.6%.

Cumulatively some EUR 536.3 million or 43.1% of total expenditures was spent on transfers to institutions, individuals, non-government and public sector and transfers for social protection, whereas EUR 140 million or 11.2% of expenditures was allocated for capital expenditures, which were significantly higher than in the same period of the previous year. The loans and borrowing granted by the Government in 2008 amounted to EUR 60.6 million, which was seven times more than in 2007, an also approximately three times more than planned, for the purpose of alleviating the effects of global crisis on Montenegro.

The debt repayment amounted to EUR 112.1 million. Repayments to residents were EUR 44.3 million, repayments from previous period EUR 51.1 million and repayments to non-residents EUR 16.8 million.

Observing the **surplus/deficit** amount as a difference between revenues and expenditures, whereas revenues were reduced for borrowings, accepted transfers, donations and proceeds from the property sale, and expenditures for repayment of capital in the country and abroad arising from the debt originating from loans taken and securities issued,

⁶ Total expenditures reduced by repayment of debts

⁷ Montenegrin Budget and Government funds

⁸ Methodology of calculating the surplus/deficit, »Official Gazette of RoM«, 71/05.

in 2008, the Montenegrin budget⁷ recorded a surplus of EUR 39.4 million⁸. The budgetary surplus was 48.2% higher than planned, but 77.4% lower than in 2007.

Local governments

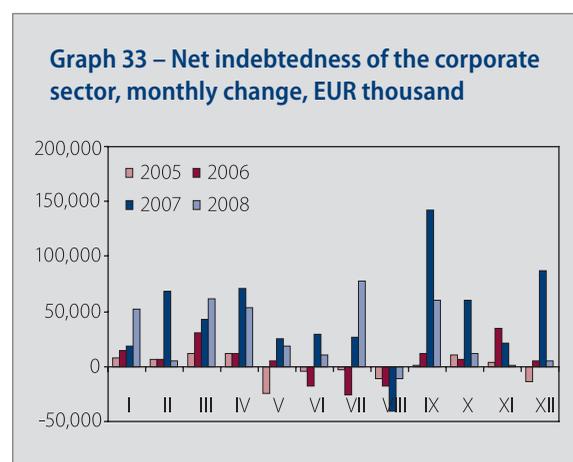
According to preliminary data of the Ministry of Finance, current revenues of local governments in 2008 amounted to EUR 232.5 million or 7% of the forecasted GDP. Compared to the last year, they increased by 10%. The structure of revenues shows that the highest share was achieved by revenues from fees (51.4%) and taxes (37.2%), while other revenues (duties, receipts from credit repayments and other revenues) accounted for 11.4%.

Consolidated expenditures of local governments in 2008 amounted to EUR 222.9 million or 6.7% of the estimated GDP. In relation to 2007, they increased by 4.8%, but were 12.4% lower than forecasted. The most important expenditures items in local government consumption were capital expenditures with the share of 49% and current expenditures with 36.8%.

4.1.3. ECONOMY

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

These data show that loans disbursed to the corporate sector were significantly higher than their deposits, so the corporate sector represented the net debtor. What is positive is that the share of long-term loans in total loans disbursed to this sector at end-2008 amounted to about 65%, which means they were dominantly used for increasing the volume of economic activity.



4.1.4. EXTERNAL DEMAND AND BALANCE OF PAYMENTS CURRENT ACCOUNT

In the last quarter of 2008, the balance of payment deficit slowed down, mostly as the result of negative trade balance being reduced. Observed at the annual level, the main characteristics of Montenegro's balance of payment were a record net inflow of foreign direct investments, record revenues from tourism industry, but on the other side, a record deficit of current account and increase of external indebtedness.

According to preliminary data, the current account deficit in 2008 amounted to EUR 975.8 million, or 18.3% more than in the previous year. The share of current account deficit in GDP was 29.2%, which is almost unchanged proportion compared to the previous year.

In the international trade in goods in 2008, Montenegro recorded a fall in imports (1.8%) and exports of goods (21.5%). Total volume of trade carried out over the goods account amounted to EUR 2,500.2 million or 6% lower than in 2007. The goods account deficit amounted to EUR 1,441.1 million, which was 7.4% more than in the previous year.

In the international trade in services in 2008, Montenegro had a surplus of EUR 402.2 million, or 8.6% less than in 2007. Export of services is on a steadily growing trend for the last few years. Revenues from services in 2008 amounted to EUR 753.4 million and were 11.8% higher than in the previous year. The highest revenues were achieved from travels (EUR 515.2 million), then from transport (EUR 92 million), civil construction services (EUR 54.3 million) and other business services (EUR 40 million). Expenditures related to services amounted to EUR 351.2 million, which is a 50% increase over 2007. The increase in expenditures from services was the result of increased expenditures in other business services, transport, civil construction, personal, cultural and recreational services.

The factor incomes account recorded a deficit of EUR 9.9 million in the observed period, unlike 2007, when a surplus of EUR 17 million was recorded. Revenues from factor incomes amounted to EUR 110.6 million in 2008, or 23.7% more than in 2007. The largest portion of revenues came from compensations to employees amounting to EUR 101.9 million, which is a 27.4% increase over 2007. Revenues from incomes from international investments amounted to EUR 8.7 million, and the largest portion of these revenues referred to interest collected in the amount of EUR 8.1 million. Expenditures amounted to EUR 120.6 million, which is 66.5% more than in 2007, as the consequence of growing expenditures based on interest repayment under loans taken and dividends paid. Expenditures related

to interest repayment amounted to EUR 85.7 million, which is 55.8% more than in 2007, whereas the amount of EUR 29.2 million refers to expenditures related to dividends paid.

The cash inflow to current transfer account continued the upward trend. Current transfer balance in 2008 amounted to EUR 73.1 million, or 23% more than in 2007. Total revenues from current transfers amounted to EUR 109.3 million in the observed period, which is 8.5% more than in the previous year, and of which EUR 13.5 million referred to the government sector and EUR 95.8 million to other sectors. Out of total inflow of transfers to other sectors, EUR 61.4 million referred to foreign remittances, whereas inflow of other transfers (heritage, support, gifts and aid) amounted to EUR 34.4 million. In the same period, expenditures related to current expenditures amounted to EUR 36.2 million, or 12.4% less than in the previous year. In the structure of outflows, EUR 32 million referred to other sectors and EUR 4.2 million to government sector.

In addition to global financial crisis and fall of security prices on the capital market in the country and in the region, capital financial account in 2008 recorded a significant inflow of foreign capital, with a record high FDI inflow, equivalent to 17% of GDP. According to preliminary data, net FDI inflow (inflow minus outflow) amounted to EUR 567.6 million, which is 8.1% more than in 2007. Total FDI inflow in the reporting period amounted to EUR 832.1 million, of which EUR 824.9 million were investments in Montenegro by non-residents and EUR 7.2 million withdrawals of funds invested abroad.

Graph 34 – FDI inflow in 2007 and 2008, in EUR 000



Source: CBM

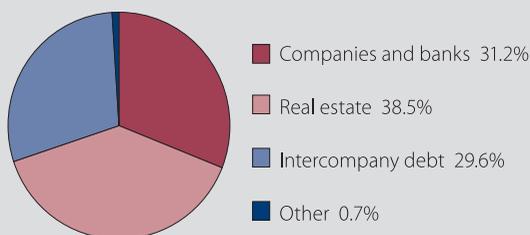
The structure of FDI inflow was considerably modified in comparison to the previous year, with fewer investments in real estates. Real estate investments amounted to EUR 320.1 million (38.5%) in 2008, which is 37.8% less than in the previous year. Foreign investments in equity of domestic companies and banks amounted to EUR 259.9 million or 31.2% less compared to the same period last year. In 2008, inflow from loans received from parent companies increased significantly as compared to 2007. These loans, in the form of inter-company debts, amounted to EUR 245.9 million, or 112.6% more than in the previous year.

Outflow based on FDI amounted to EUR 264.5 million, which is 45.2% less compared to 2007. In the observed period, investments of Montenegrin residents in foreign banks and companies amounted to EUR 49.1 million, which is a 21.5% fall in relation to 2007. Outflow based on real estate amounted to EUR 167.5 million (63.3% of total outflows), whereas foreign capital withdrawals from domestic banks and companies amounted to EUR 26.7 million. Outflows related to inter-company debt and withdrawal of equities in other domestic companies amounted to EUR 21.2 million.

The **investment portfolio** account had a deficit of EUR 15.5 million in the observed period, unlike the previous year when it had a surplus of EUR 4.7 million. Inflow on the basis of investment portfolio amounted to EUR 182.9 million and outflow was EUR 198.4 million.

Net inflow from **other investments** (including credits, trade loans, cash and deposits) in 2008 amounted to EUR 402.7 million, exceeding the last year's figure by 17.3%. The achieved net inflow is mostly the result of foreign borrowing by banks and companies.

Graph 35 – Structure of FDI inflow in 2008



Source: CBM

4.2. SUPPLY AND PRODUCTION

According to preliminary data of the Ministry of Finance, GDP for 2008 amounted to EUR 3.339.0 million, with a real GDP growth of 8.1% as compared to the GDP in 2007.

After the increase in physical volume of industrial output in the third quarter, a decline of 14.03% was recorded in the fourth quarter of 2008. Monthly data on the physical volume of industrial output show that a decrease was recorded in October (-16.1%) and December (-9.0%) in relation to the previous months, while an increase was recorded in November (12.6%). The growth of industrial production in November was a result of increase of 105.6% in production in the energy, gas and water supply sector. The growth in this sector continues in December as well (18.9%).

In 2008, the industrial production was 2% lower than in the comparative period of last year. Electricity generation sector recorded a growth of 31.9%, production in mining and quarrying sector rose by 17.7%, while the processing sector had an output lower by 11.3%. Annual decline in industrial production amounted to 20.3%, which is the largest decline after the one in 2005, when a -21.2% rate was recorded.

According to Monstat data, Montenegro was visited by 1,188.1 thousand **tourists** in 2008, which is 4.8% higher than in the same period previous year. The number of arrivals of domestic tourists and foreigners increased

Graph 36 – Industrial production, annual growth rate



Source: Monstat

by 5.1% and 4.8%, respectively. Number of overnight stays in the observed period was 7794.7 thousand, which is by 6.9% more than in the respective period of the previous year.

Total **wood production** in the period January–December 2008 amounted to 281.3 thousand m³, which is by 6.6% higher than in the comparable period of the previous year.

Decrease in the volume of passenger transport in 2008 was recorded in the **road transport** by 12.6%, while transport of goods increased by 49.3%.

Transport of passengers in **railway transport** in 2008 increased by 13.6% (measured by passenger kilometres), while transport of goods decreased by 0.6% (measured by tonne kilometres).

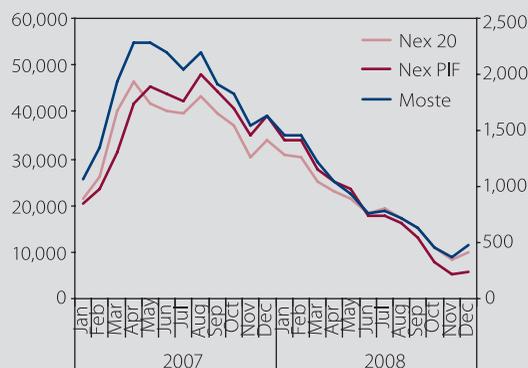
Air transport recorded positive results in 2008. The number of passengers who used air transport was 1,109.1 thousand, which is 8.3% more than in 2007, and the transport of goods increased by 13.6%.

Total **turnover in harbours** in 2008 amounted to 1,948.8 thousand tons, which is by a 5.9% decrease in relation to the previous year. Import was reduced by 13.6%, export also fell by 4.7% and the transport of goods decreased by 13.7%.

4.3. STOCK EXCHANGE INDICES

Negative trend on Montenegrin exchanges that started in the middle of 2007 continued in 2008. It was manifested through the fall in the number of transactions made and a significant drop in the turnover

Graph 37 – Movement of indices on NEX Montenegro and Montenegro Stock Exchange (NEX20 and NEX PIF - left scale and MOSTE - right scale)



Source: NEX Montenegro and Montenegro Stock Exchange

(average monthly turnover in 2008 was almost 4.5 times lower than in 2007). Stock exchange indices showed a declining trend throughout the year. A mild monthly growth was recorded in July (two share indices) and December (all the three indices) only.

At the end of the year, all three indices were significantly below the level in end-December 2007. At the annual level, Moste recorded a decrease by 71.2%, while NEX20 and NEX PIF decreased by 70.7% and 85.1%, respectively.

Compared to their maximum historical values (reached in 2007), at end-December 2008 MOSTE, NEXPIF and NEX20 indices decreased by 80.9%, 79.4% and 88.5%, respectively.

Table 3 – General data on indices

	MOSTE		NEX 20		NEXPIF	
Value on 31 December 2008	469.53		10,002.93		5,844.64	
Absolute change in 2008	-1,158.16		-24,165.70		-33,384.53	
Starting value of index	100,0	March 2003	1000,00	March 2003	1000,00	March 2003
Maximum value in 2008	1,613.0	09.01.2008	34,168.63	09.01.2008	39,229.17	09.01.2008
Maximum historical value	2,455,4	07.05.2007	48,617,88	07.05.2007	50,780,54	17.08.2007
Minimum historical value	94,8	23.06.2004	918,57	14.04.2003	959,53	02.04.2003
Annual increase (decrease)	-71.2		-70.7		-85.1	

Source: Montenegro and NEX Montenegro Stock Exchange

5. MONETARY POLICY

Since January 2008, the applicable legislation concentrated on stricter mandatory reserve policy, temporary credit growth restriction and the commencement of the operation of the centralized credit registry.

The new Banking Law was passed in March 2008, and a set of new enabling regulations closely arranging the banking operations in Montenegro was put in place in September 2008. The purpose of adopting new regulations in 2008 was the increase of capitalization level of Montenegrin banks, as well as the improvement in the quality of supervision in order to preventively act on maintaining the stability of Montenegrin banking system.

Anticipating future developments, the Central Bank of Montenegro passed stricter legislation compared to international standards in order to prepare banking sector for possible negative consequences of global financial crisis.

These stricter solutions mostly refer to the solvency ratio threshold, and thus the necessary capital for covering risk, stricter treatment of collaterals for securing exposure, stricter treatment of past due liabilities, stricter criteria for credit risk and liquidity risk management as the most important risks in the Montenegrin banking system, stricter treatment of provision allocation, etc. (For more details, see Inflation Report for January-September 2008).

It should be noted that, with a view to protecting the banking system from the results of the global financial crisis and maintaining its security and stability, the Law on Measures for the Protection of Banking System was passed in October 2008, guaranteeing payment of all deposits and prescribing measures for maintaining the liquidity and solvency of banks founded and operating in Montenegro.

Pursuant to this law, the Central Bank of Montenegro issued the following two decisions at end-2008: Decision on Reserve Requirement for Banks to Be Held with the Central Bank of Montenegro for a Period Longer than 1 Day and the Decision on Granting Short-Term Loans to Banks. (For more details, see Inflation Report for January-September 2008).

6. INFLATION FORECAST FOR 2009

For inflation forecast, we use Fan Chart, which is a graphic representation of the distribution of probability of inflation movement forecasts expressed through retail price index (RPIMNE⁹). In that respect, instead of determining concrete points, the Fan Chart also takes into account, through probability distribution, potential risks and uncertainties that could have an impact on inflation trends in the upcoming period. The purpose of Fan Chart is to indicate and reflect uncertainties that exist in real economy movements and that are consequently reflected in inflation rate movements (energy product price increase, foreign trade deficit increase/decrease).

The Fan Chart for Montenegro for 2009 is based on:

1. **Central projection value** – value of the Fan Chart central projection deriving from ARIMA model and using TRAMO/SEATS simulation for obtaining more efficient model.
2. **Uncertainty level** – defining the width of Fan Chart. Uncertainty level coefficients are obtained by analytical assessment and calculation of relative impact of potential internal (expected electricity price increase) and external

shocks (oil price movements), which may occur in Montenegrin economy during 2009.

3. **Fan Chart skewness** – on the basis of the degree of inflation projection distribution skewness, Fan Chart is adapted to the forecast, with regard to whether the central projection values have “overrated” or “underrated” the inflation rate movements. The position of inflation distribution average value will depend on it.

Fan Chart central projection – ARIMA model for 2009

For the purpose of making Fan Chart, ARIMA (Auto-regressive Integrated Moving Averages) model of Montenegrin inflation time series expressed through Retail Price Index¹⁰.

ARIMA model was used for short-term forecast (12 months of 2009), through the iteration of more than 200 ARIMA models, ranked from the aspect of their efficiency and diagnostic quality. As for uncertainty level defining the width of Fan Chart, the selected SARIMA (Seasonal ARIMA) model, SARIMA (4,1,2)¹¹ has a sufficient level of reliability for the needs of forecasting.

⁹ Retail Price Index Montenegro

¹⁰ Detailed explanation of Montenegrin ARIMA model is given in the Central Bank's working paper no.11 "Inflation forecasting: Empirical study of retail price index trends in Montenegro for 2007 – application of ARIMA model", 2007. Also, although the CBM monitors Cost of Living Index (CLI) and Consumer Price Index (CPI) as the main indicators of price level, inflation projection is based on Retail Price Index for two reasons. Firstly, CLI, in the period before being enhanced in 2006, has a set of negative prefix values, which makes forecasting difficult and, because of non-stationary series, done in dlog form. Secondly, CPI has an overly short series for model creation.

¹¹ ARIMA model is usually marked as ARIMA(p,d,q), where p represents the number of autoregressive variables, d stands for the level of depending variable stationarity, while q represents the number of variables, moving averages which are placed in the corresponding model.

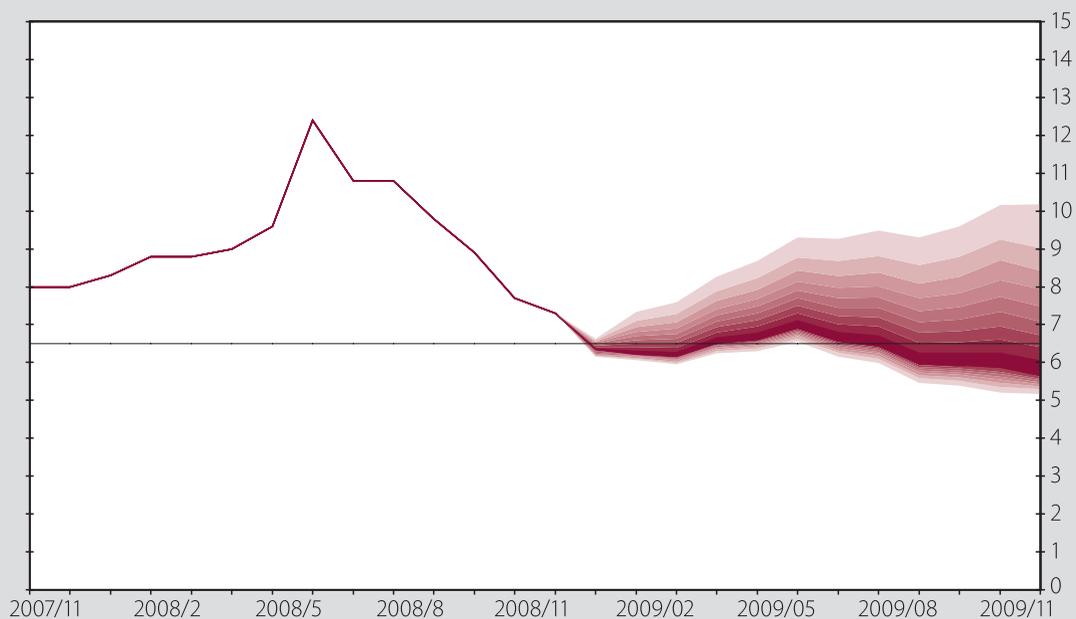
On the basis of TRAMO/SEATS¹² procedure, 5 breakdown points have been identified in the former series, which correspond to a significant change in the structure of inflation, from 2001 to end-2009, covered through dummy variables in the ARIMA model. In addition to technical identification, there must be a methodological or economic explanation to consider these dates as factual breakdown points:

1. April 2004 – a significant drop in prices of agricultural products occurred, equal to 5.5 index points, as well as a drop in transport and PTT services by 1 index point, and in oil derivatives by 1.6 index points.
2. December 2004 – a significant growth in services occurred, equal to 45.9 index points per annum, in which PTT impulse price recorded a growth of 100 index points.
3. December 2005 – reflected a high base from December 2004.

4. July 2007 – a new method of calculating electricity price by Monstat, reflected in the index growth of 100 index points.
5. September 2007 – due to extremely dry season and significant growth in prices of agricultural and food products, in this month there was a high increase (17.4%) in prices of agricultural products. The financial crisis escalated in the period starting from this month until the middle of the next year, and both the EU and West Balkans countries recorded inflation rates higher than expected.

The result of the ARIMA model projection was compared to the projections obtained through TRAMO/SEATS procedure, which showed a significant level of compatibility. Monthly projection values were used for the Fan Chart central projection values of RPI for 2009. The obtained values represent the distribution mode, i.e., values with the highest frequency in the distribution of these time series.

Graph 38 - Projection of retail price index in Montenegro for 2009



¹² TRAMO program is a program for estimating and forecasting models (mostly ARIMA, with problems of missing data, data errors and existence of a large number of extreme data in time series). SEATS program is used for extracting components in time series that cannot be directly observed, such as trends, season, cycle, Easter or Christmas effect, which enables better analysis and projection of ARIMA model. (For more details, see the TRAMO and SEATS manual (Gomez and Maravall, 1996).

The average value of the obtained model was 8.75%, the skewness coefficient varied in the range from 1.93 to 2.87, whereas the standard deviation values amounted to $\sigma_2=1.91$ and $\sigma_1=0.32$, which indicates, as in the previous two years, that appropriate range of uncertainty is concentrated towards higher inflation rates, reflected on the graph through the “wider” band concentrated above the central “most red” band.

The Fan Chart explains (represents) 90% of inflation distribution probability. The central projection is usually in the darkest part of the Fan Chart, i.e. the central 10% of the probability.¹³ The Fan Chart has eight layers at each side, above and below the central band, each layer of the same colour above and below the central band, cumulatively, explains the next 10% of inflation movement probability. As the uncertainty grows in time, Fan Chart becomes wider and wider.

The Fan Chart inflation of Montenegro, based on ARIMA model estimate and TRAMO/SEATS simulation for 2009, indicates, with a 90% probability, that inflation, measured by RPI, will range between 5.2% and 10.2%, depending on the month. Namely, with the increase in forecasting time horizon, uncertainty is growing, and thereby the forecasting span. Thus, for example, it can be claimed for March 2009, with 90% probability, that inflation will be in the interval between 5.9% and 7.6%. This span will expand for subsequent months, so that the span for September is between 5.4% and 9.6%.

The Fan Chart central projection shown by the darkest part of the band, with a 10% probability, shows that inflation in 2009, measured by RPI, will range from 5.6% and 7.1%, depending on the month. At the year-end, with a 10% probability, the inflation will vary from 5.66% and 6.06%.

Observed from economic aspect, it is realistic to expect the decrease in inflation rate in the next year, according to the model forecasts, primarily due to slowing down of the economic growth, decline in aggregate demand (primarily personal consumption), potential unemployment growth, stagnation of salaries and available income. External assumptions taken into account in calculating the level of uncertainty were:

1. The oil and oil derivative prices will be in the range of $\pm 15\%$ to the December 2008 prices;
2. Aluminium price will not be lower than the December 2008 price by more than 10%;
3. The (annual) credit growth in this year will vary from 8-10%;
4. Real estate prices will not fall by more than 25% compared to November 2008;
5. The growth in real salaries will not exceed 10%;
6. The world economic growth in 2009 will be below the level achieved in 2008.

¹³ Mode (central projection) values are usually presented in the darkest band, but if there is a significant level of risk, the central projection may not cover any of these values. (Britton, E, Fisher, P.G. and Whitley, J.D. (1998), 'The Inflation Report projections: Understanding the Fan Chart', Bank of England, Quarterly Bulletin, 38, pp. 30–37).

7. EXPECTED INFLATION IN 2009

The level of aggregate demand in the fourth quarter 2008 was higher compared to the previous quarter, which is a usual seasonal movement. However, the aggregate demand growth rate was significantly lower than in the previous year. It is quite certain that, as a result of seasonal movements and global financial crisis, aggregate demand will considerably decline in the first quarter of 2009.

The GDP growth rate was extremely high in the previous year. Although surveyed companies expressed optimism regarding the volume of economic activity, investments and number of employees, we believe that economic situation in 2009 will become worse.

The annual inflation rate declining tendency that started in July previous year continued in the fourth quarter of 2008.

Our survey shows that inflationary expectations are on the increase, especially when banks are concerned. Still, we believe that a number of surveyed companies, faced with significantly worse position of their companies, wrongly interpreted "the market signals" and concluded that all operating parameters will get worse, including the inflation.

One of positive side effects of the global financial crisis will be the declining inflation rate. Lower aggregate demand, difficulties in selling products and unemployment increase will certainly lead to many companies lowering their prices or restraining from any price increases. These tendencies will occur both globally and nationally, which is very important since Montenegro imports a large number of products.

Inflation forecast model came to the central inflation projection in the range from 5.66% to 6.06%. However, this should take into account all the notes about the imperfect econometric forecasting of inflation rate in Montenegro.

On the basis of the above, we believe that there will be no significant inflationary pressures in 2009. Inflation rate in 2009 is expected to be lower than in the previous year, ranging between 3.5% and 6.5%, which is very close to the model estimation. When taking this estimate into consideration, one should have in mind that instable circumstances provoke frequent forecast corrections, due to instability of relations applicable in stable periods. This also means that forecasts are less reliable in instable forecasting environment.

Table 4 – Estimated inflation rate

Optimistic estimate	Realistic estimate	Pessimistic estimate
2.5%	4%	5.5%

This estimate is based on the following assumptions:

- that controlled prices will not significantly increase;
- that prices of oil derivatives will change by $\pm 15\%$ in relation to the December 2008 level,
- that economic activities at the global level will not be invigorated, i.e. developed countries will have negative economic growth rates,
- that the credit growth rate will be a one-digit figure and

- that there will be no misuse of the dominant position in the market.

Any deviation in any of these parameters from the expected values would require the revision of the estimate.

