



# INFLATION REVIEW

Central Bank in Georgia was first  
established in 1919

**2008**

NATIONAL BANK  
OF GEORGIA

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NATIONAL BANK OF GEORGIA

# INFLATION REPORT

QII 2008

TBILISI

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## INTRODUCTION

According to the Department of Statistics of the Ministry of Economy of Georgia, in QII 2008 the general level of consumer prices grew by 0.9%. Accordingly, in June 2008 the annual inflation decreased by 1 percentage point to 11.3%, compared to the previous quarter. The average annual inflation rate grew by 1% in QII to reach 10.5%.

Annual core inflation rates amounted to 11.1% and 5.3% for products within the limit of two and one standard deviations, respectively. In June 2008, compared to the same period of the last year, significant price gains have been registered in transport (23.2%). This was largely due to increase in intracity bus, microbus and taxi transportation prices.

High level of inflation in Georgia is largely determined by imported inflation from major trading partners. Prices of imported goods increased by 14.1%. In June, inflation rate of domestically produced goods equaled 7.2%. Such a growth rate of price gains on imported goods can mostly be explained by high inflation levels in major trade partners (Ukraine, Russia, Kazakhstan, Azerbaijan).

Analysis of goods by durability shows that in June 2008, compared to the previous month, prices on semi-durable, non-durable, and durable goods decreased by 0.5%, 0.5%, and 1.1%, respectively. In June, prices of services increased by 1.2%. Among goods with various durability the annual inflation rate is the

highest for non-durable goods (11.6%). The annual inflation rate for services is also high (13.8%).

Average monthly wages equaled 504.9 Lari in QI of 2008, which is 57.4% higher than in the same period of the previous year. The real growth of value-added per employee equaled 12.6%. The real gain in labor productivity as an indicator of expanding supply is a significant counter-inflationary factor. At the same time though, even faster growth of wages, which took place during the analysis period, led to sizable gap between demand and supply, thus causing acceleration of inflation.

Supply at the Tbilisi Interbank Currency Exchange (TIBFEX) significantly exceeded demand. Net purchases by the NBG amounted to 305.6 million USD (458.6 million Lari). In addition, as a result of intra government currency conversions, the volume of net sales of foreign exchange by the NBG equaled 420.3 million USD (630.7 million Lari). It can be said that, overall, as a result of these operations (operations conducted at the TIBFEX and government currency conversions), 172.1 million Lari has been withdrawn from circulation. From the beginning of the year, the growth of government deposits amounted to 180.0 million Lari.

The NBG still relied on auctions of Certificates of Deposit as the main instrument of the monetary policy. Net amount of cash withdrawn from

the system by means of Certificates of Deposit equaled 180.1 million Lari.

As a result of the above-mentioned liquidity absorption by means of contracting the reserve money in six months of 2008, the amount of the reserve money grew by 6.8% to reach 1600.2 million Lari for end-June. Expansion of the M2 aggregate was also limited (13.4% from the beginning of the year). Accordingly, the increase of general price level was not caused by monetary factors.

Compared to December 31, 2007, the credit portfolio of the banking sector grew by 946.8 million Lari, or 20.7%. Overall, the volume of credit extended to the domestic economy by the banks equaled 5527.3 million Lari. Due to high growth rates of the volume of loans extended by the banks, during a certain period of time, a significant liquidity deficit emerged in the banking sector. This problem was sharp in the third decade of April, and particularly, in May. For financing of deficits, the banks actively used the NBG overnight loans and interbank loans.

In QII 2008, similar to the previous quarter, the NBG held weekly auctions for 7- and 91-day Certificates of Deposit. In accordance with the decision of the Monetary Policy Committee, the interest rate on the main monetary policy instrument (one-week Certificates of Deposit) has been changed just once in QII. Namely, on April 17, the interest rate has been increased from 11% to 12%. This decision was aimed at curbing consumer demand, and hence, inflation. In accordance with the decision of the Monetary Policy Committee of the NBG, the interest rate ceiling on three-month

Certificates of Deposit has been increased from 17% to 18% on April 17 and to 19% on June 26.

In QII, the interest rate on overnight loans also grew, from 16% to 20%.

The weighted average interest rate indices of loans denominated in the national currency with one-to-seven-day maturity, TIBR7 and TIBR1, indicate that despite certain volatility, interest rates grew in QII.

In Georgia as a small open economy, exchange rate dynamics seriously affect inflation rate.

Exchange rate volatility might have adverse impact on the real sector. Depreciation of the national currency increases inflationary expectations, and as a result, accelerates inflation. Appreciation makes imports cheaper, which might positively affect inflation, especially when a country strongly depends on imports. During QI of the current year, inflow of capital amounted to approximately 800 million USD.

As a result of growth of capital inflows, supply of foreign exchange grew in the domestic market. This can be clearly traced in transactions conducted at the foreign exchange market. The Lari exchange rate appreciated by 15% against the USD during the last year, followed by an 11% appreciation during the first half of the current year. Focusing on its main task, maintenance of low and stable inflation rate enabled the NBG to reduce the frequency of interventions at the foreign currency exchange. As a result, the Lari exchange rate reaches an equilibrium point faster.

Current account balance is an important factor affecting the volatility of the exchange rate. The current account balance of Georgia is negative throughout the years and it tends to widen, which is extremely worrisome. During QI of the current year it exceeded 723 million Lari, which is approximately 80% higher than the analogous indicator for the previous quarter.

The mentioned tendencies of the current account are conducive to the Lari depreciation. Though, it must be mentioned that the appreciation effect caused by inflow of capital outweighs the negative effects of the current account balance. As a result, Lari exchange rate against the USD in general tends to appreciate.

For inflation forecasting purposes the NBG employs the following two methodologies: On the one hand, the NBG observes the price indices of several

goods from the consumption basket, and based on certain assumptions and forecasts, calculates the short-term inflation forecast. On the other hand, the NBG relies on econometric modeling of long-term inflation.

While forecasting inflation level for 2008, the NBG takes into account the exclusion of effects caused by one-time price increases of certain products during the remaining months of the year. The bank also takes into account the dynamics of commodity prices reduction in international markets. This pertains to fuels, wheat, and sugar. The bank assumes that the regulated prices will not change during the remaining period of the year. Taking into account all the above-mentioned, it is predicted that by end of QIII and QIV inflation will decrease significantly. The tendency of inflation reduction is also visible in the econometric models.

# 1. CHANGES IN CONSUMER PRICES

According to the Department of Statistics of the Ministry of Economy of Georgia, overall level of consumer prices grew by 0.9% in QII of 2008. Accordingly, in June 2008 the annual inflation rate dropped from 12.3% registered in the previous quarter to 11.3%. The average annual inflation rate increased by one percentage point, reaching 10.5%.

The main causes of inflation during the quarter included price gains on gasoline, intracity bus, micro bus and taxi transportation. These items of the consumption basket increased by 9.9% and 3.9%, respectively. The share of these factors amounted to 0.5% of the quarterly inflation. In addition, changes of prices on vegetables during QI influenced volatility in general price level. This can be explained by a seasonal nature of the latter produce.

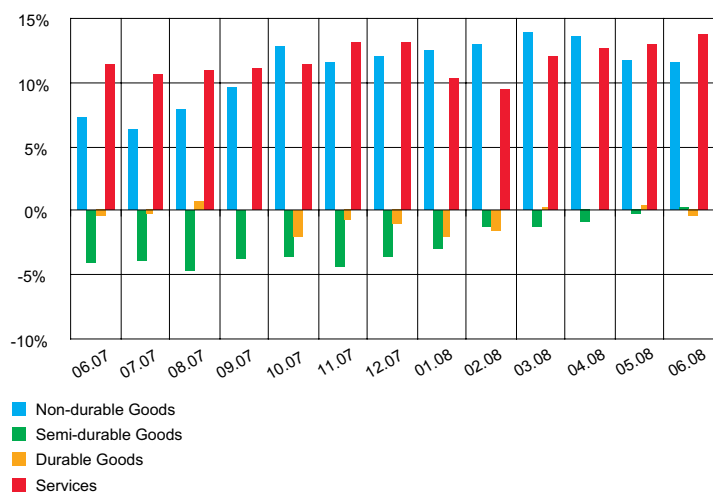
The core inflation indices amount to 11.1% and 5.3% for the products within the limits of one and two standard deviations, respectively. The level of core inflation grew significantly during the recent period, especially for the products within the limits of two standard deviations.

As it was already mentioned, in June 2008, compared to the same month of the previous year, the consumption basket prices grew by 11.3%. 3.7% reduction in prices has been recorded for „clothes”,

while prices of „alcoholic beverages and tobacco” decreased by 1.6%. Prices in communications sector grew by 5.9%. Significant price increases have been recorded for the following groups: „food and non-alcoholic beverages” (13.3%), „household appliances” (17.6%), and „healthcare” (16.1%). The prices on the commodity group „housing, water, electricity, and other types of energy” grew by 7.8%. In June 2008, compared to the same month of the previous year, the most significant price increase took place in the „transport”<sup>1</sup> group (23.2%), which was mostly due to increases in prices on intracity bus, micro bus and taxi transportation.

The NBG observes the dynamics of inflation based on location of production.

GRAPH 1.1  
CHANGES OF ANNUAL INFLATION FOR GOODS AND SERVICES WITH VARIOUS DURABILITY

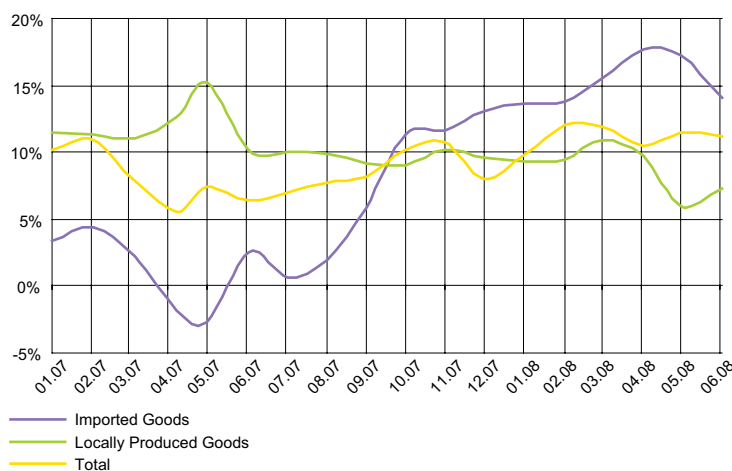


<sup>1</sup> In addition to intracity bus and subway transportation prices, the average growth of transportation prices is included. These also comprise other means of transport such as intracity taxi, micro bus, and suburban and intercity transport, etc.

In line with this classification it is most important to underline the following three categories: imported, mixed and locally produced goods. During the recent period very significant increase in prices of imported goods took place, however, followed by a slight decrease in June. The annual price increase amounted to

14.1%. Such a fast increase in prices of imported goods can be explained by high inflation rates in Georgia’s major trade partner countries (Ukraine, Russia, Kazakhstan, and Azerbaijan). During the recent period, the inflation rate of the locally produced goods remains to be relatively stable (9-10%). This indicator stood at 7.2% in June.

GRAPH 1.2

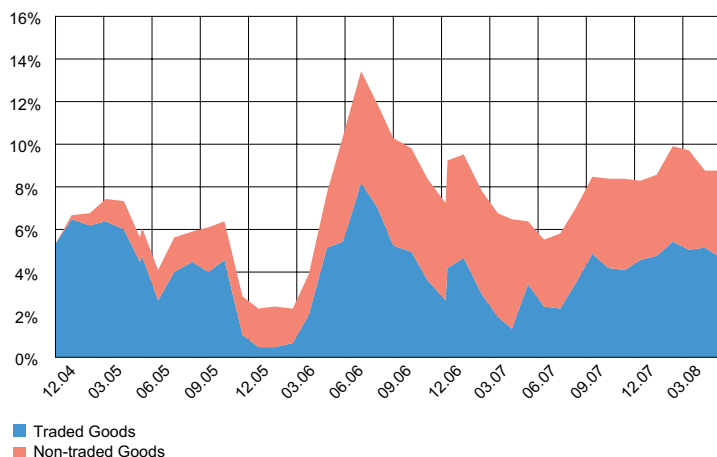


Thus, high inflation rates in Georgia are significantly determined by the imported inflation from the major trade partner countries.

The dynamics of prices on traded<sup>1</sup> and non-traded goods indicate the increase of the share of non-traded goods in general inflation. This is largely due to fast increases in prices of services.

It is worthwhile to mention that traded and non-traded goods have equal shares in inflation during the recent years<sup>2</sup>.

GRAPH 1.3



Analysis of goods by consumption durability shows that in June 2008, as compared to the previous month, prices decreased on semi-durable, non-durable and durable goods by 0.5%, 0.5%, and 1.1%, respectively. Prices of services grew by 1.2%. Among goods with various consumption durability the annual inflation rate is the highest for non-durable goods (11.6%). The annual inflation rate for services is also high (13.8%).

From December 2005 to June 2008 the prices of non-durable goods grew

<sup>1</sup> Goods and services, which can be sold at a distance from the production location.  
<sup>2</sup> White bread is excluded from the list of local production, as well as traded and non-traded goods. This is due to the fact that its price gains have a very significant impact on inflation and its inclusion in any group of goods sharply alters the overall picture.



by 28.4%. During the same period the prices on services increased by 29%. As for prices on semi-durable and durable goods in the same period, they decreased by 4% and 2.3%, respectively.

High inflation rate registered for the last year was largely determined by several factors. Namely, world prices on wheat flour, sunflower oil, sugar, and oil products increased during this period.

GRAPH 1.4  
ANNUAL CPI AND CORE INFLATION  
(BASED ON 282 COMPONENTS OF THE CONSUMPTION BASKET  
FROM JANUARY 2006)<sup>1</sup>

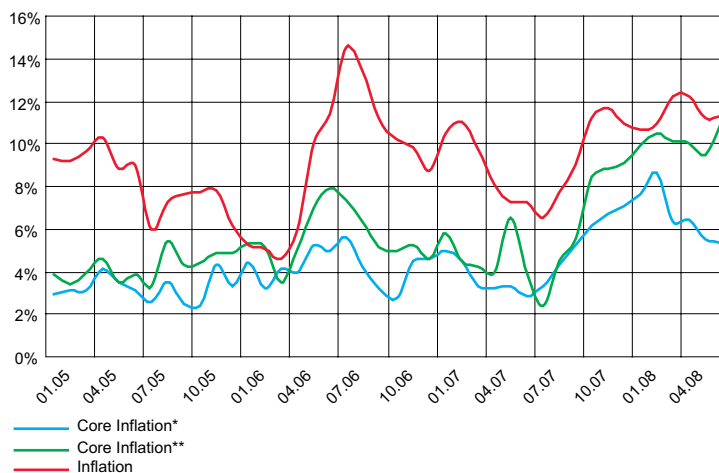


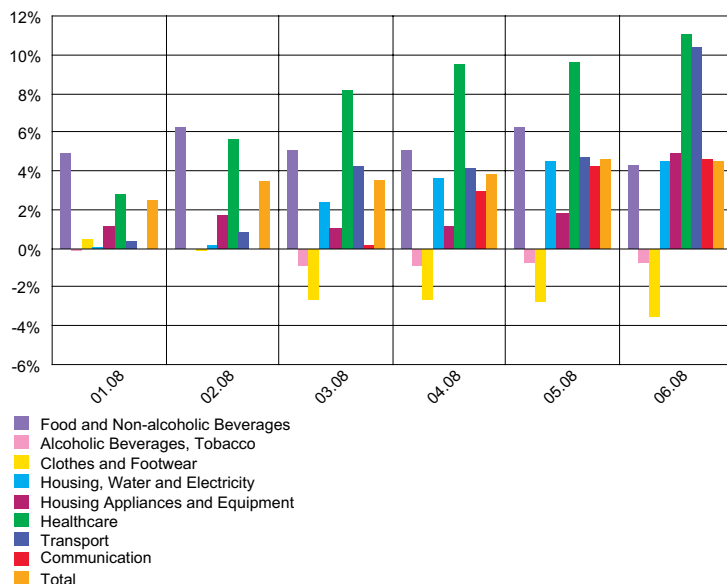
TABLE 1.1  
INFLATION (CPI) INDICATORS FOR VARIOUS COMPONENTS (%), THEIR SHARE IN THE CONSUMPTION BASKET (%)  
AND IMPACT ON CPI (%)

	2006	June 2008 / May 2007		June 2008 / June 2007		July 2007 – June 2008/ July 2006 – June 2007	
	December	Inflation	Impact	Inflation	Impact	Inflation	Impact
Total	100.0	0.9	0.9	11.3	11.3	10.5	10.5
Food and Non Alcoholic Beverages	44.3	-0.7	-0.3	13.3	5.9	13.2	5.8
Food	43.0	-0.8	-0.3	13.6	5.8	13.5	5.8
Bread and Bakery Products	12.2	1.8	0.2	31.8	3.7	26.7	3.2
Meat and Meat Products	6.6	5.3	0.3	12.2	0.8	3.8	0.2
Fish Products	1.1	3.4	0.0	-3.4	0.0	3.8	0.0
Milk, Cheese, Eggs	5.2	-17.0	-0.8	13.0	0.5	9.4	0.4
Oils and Fats	3.5	1.6	0.1	44.8	1.5	33.5	1.1
Fruits, Grapes	2.3	5.3	0.2	0.2	0.0	68.0	1.9
Vegetables, Watermelons, Potatoes and Other Solanaceous	8.8	-6.0	-0.4	-9.9	-0.8	-14.2	-1.3
Sugar, Jam, Honey, Syrups, Chocolate, Pastry	2.7	-1.0	0.0	-1.6	0.0	-5.3	-0.1
Other Food Products	0.6	2.7	0.0	10.2	0.1	12.1	0.1
Non-Alcoholic Beverages	1.3	0.5	0.0	5.0	0.1	2.9	0.0
Alcoholic Beverages, Tobacco	3.7	0.2	0.0	-1.6	-0.1	0.0	0.0
Clothing and Footwear	5.0	-1.0	0.0	-3.7	-0.2	-5.6	-0.3
Housing, Water, Electricity, Gas, and Other Fuels	10.3	2.1	0.2	7.8	0.9	17.7	1.9
Furniture, Home Appliances and Equipment, Housing Renovation	3.7	3.9	0.1	17.6	0.6	10.1	0.4
Healthcare	8.0	2.7	0.2	16.1	1.3	10.2	0.8
Transport	9.0	5.9	0.6	23.2	2.1	14.6	1.3
Communications	4.4	4.4	0.2	5.9	0.2	2.1	0.1
Recreation, Leisure and Culture	2.7	-0.4	0.0	6.1	0.2	7.4	0.2
Education	3.5	-3.4	-0.1	1.5	0.0	2.7	0.1
Hotels, Cafes, Restaurants	2.4	0.8	0.0	3.4	0.1	3.2	0.1
Other Goods and Services	3.2	0.4	0.0	7.3	0.2	5.2	0.2
Non Durable Goods	68.0	0.4	0.2	11.6	7.9	11.5	7.8
Semi-Durable Goods	6.5	-0.8	0.0	0.2	0.0	-2.5	-0.2
Durable Goods	1.9	-1.7	0.0	-0.3	0.0	-0.6	0.0
Services	23.6	3.0	0.7	13.8	3.3	11.8	2.8

\* For the products within one standard deviation.

\*\* for the products within two standard deviations.

GRAPH 1.5  
PRICE INCREASES FROM DECEMBER 2007



These goods have a significant weight in the consumption basket. Thus, the global inflation had a significant negative effect on the inflation level in Georgia.

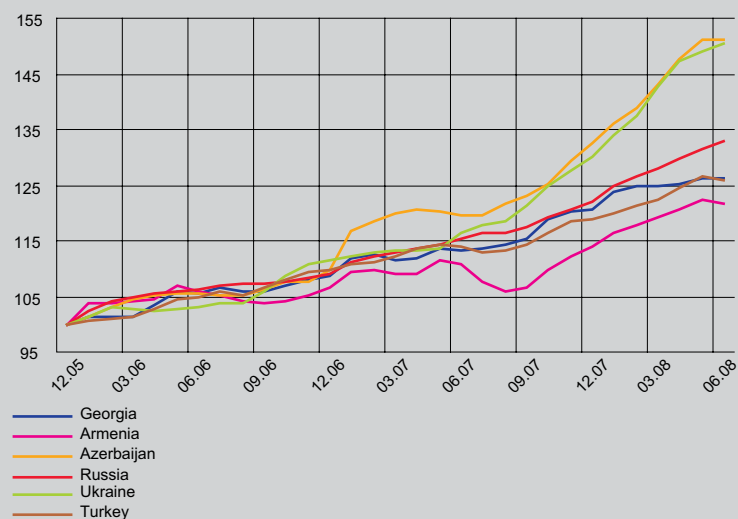
In order to forecast short-term inflation, the NBG takes into account the expected downward dynamics of the world prices on products, which play an important role in the consumption basket. As a result, in case of keeping the regulated prices constant, reduction in the annual inflation rate is expected by the year-end.

**BOX 1. INFLATION IN GEORGIA AND ITS NEIGHBORING COUNTRIES**

Georgia’s neighboring countries differ from each other by rates of economic development and changes in aggregate demand. Therefore, there are differences in the rates of consumer price inflation.

In general, the scale of inflation in the neighboring countries can be assessed as follows: high rates of inflation are registered in Ukraine and Azerbaijan, while there are low in Armenia, and at a medium level in Russia. In Georgia inflation rates are under a medium level, being practically identical to those of Turkey. In case if the base year for the CPI level is chosen since December 2005, it becomes evident that Azerbaijan and Ukraine surpassed the mark of 150%. This parameter stands at 132.9% in Russia, 126.1% in Georgia, 126% in Turkey, and 121.7% in Armenia.

GRAPH 1  
CONSUMER PRICES INDEX  
(December 2005=100)



Rates of annual inflation are especially high in Ukraine and Azerbaijan. The highest rate of inflation in Ukraine was registered in May 2008 at 31.1% (initially, the government’s forecast was 9.6%. However, it was adjusted up to 15.3% after the data of the first half of

the year became available). It might be possible that high inflation had been triggered by large-scale social expenditures from the state budget and attempts to maintain the level of the fixed exchange rate.

The highest rate of inflation in Azerbaijan was registered in June (26.5%)<sup>1</sup>. According to the forecast of the Ministry of Economy of Azerbaijan, average inflation will equal 13% in 2008. However, by June the actual level of inflation already exceeded the forecasted level by 7.2%. According to the IMF forecast, average inflation in Azerbaijan will reach 19.6%, while by the year-end it will equal 22%.

The table below shows the maximum and minimum levels of annual inflation.

Thus, during the past period of 2007-2008 the maximum levels of inflation had been registered during the last four months of the current year.

GRAPH 2  
ANNUAL INFLATION

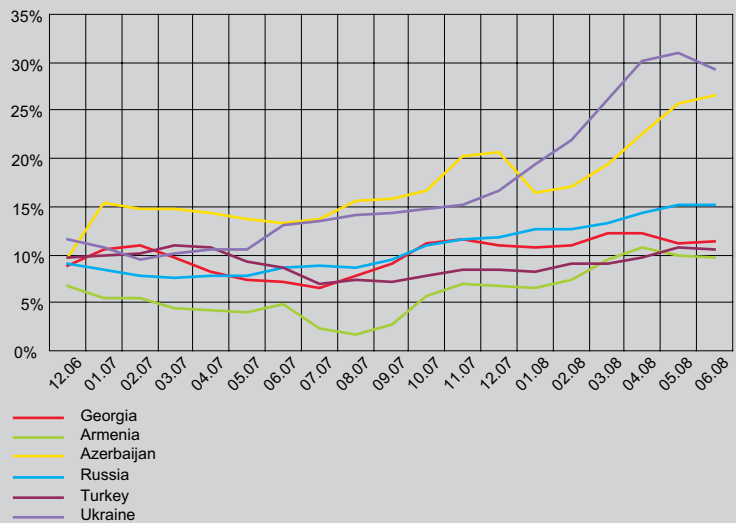


TABLE 1  
THE MAXIMUM AND MINIMUM LEVELS OF ANNUAL INFLATION\*  
(2007-2008)

	Georgia	Armenia	Azerbaijan	Russia	Ukraine	Turkey
max	12.3% (03.08)	10.7% (04.08)	26.5% (06.08)	15.1% (05.08)	31.1 (05.08)	10.9 (03.07)
min	6.6% (07.07)	1.7% (08.07)	9.8% (06.07)	7.5% (03.07)	9.5% (02.07)	6.9% (07.07)

\* Relevant month and year are given in brackets.

<sup>1</sup> The calculations are made by the NBG and are in line with parameters calculated in other countries, i.e. 12-month changes. The Bank of Azerbaijan uses moving average inflation. For June 2008 it stood at 20.2%.

## 2. INFLATION FACTORS

### 2.1. LABOR PRODUCTIVITY, WAGES

The year of 2008 was earmarked by a significant growth of average wages, compared to 2007. Namely, in QI 2008 average monthly wages per employee amounted to 504.9 Lari<sup>1</sup>. This is 57.4% higher than for the same period of 2007. All the important sectors of the economy experienced increase of wages. A sectoral analysis showed that growth rates of wages were particularly high in agriculture (84.2%) and

transport and communications (81.8%). Significant growth was registered in public administration (78.4%), healthcare (76.9%), and mining (70.1%). It is worthwhile to mention that, the smallest, though positive growth has been registered for construction employees (6.8%).

During QI 2008 there still remained significant differences between average wages by occupation. The highest monthly average wages have been registered for financial intermediation (1601.3 Lari) and public administration (910.4 Lari), which exceed the monthly average wages for the whole economy 3.2 times and 1.8 times, respectively. The lowest monthly average wages have been registered in fish catching, fishery (173.9 Lari) and education (213.6 Lari) sectors. These amounted to, respectively, 34.4% and 42.3% of monthly average wages for the economy. Wages lower on average than in the economy have been registered for the sectors, which are largely financed by the state budget (education, healthcare and social assistance, and communal, social and personal services).

In QI 2008, compared to the same period of the past year, the real growth of value-added per employee grew by 12.6% (this is 3.6% lower than analogous parameter for 2007). Significant growth has been

TABLE 2.1.1  
NOMINAL MONTHLY AVERAGE WAGES OF EMPLOYEES IN QI 2008,  
COMPARED TO QI 2007 (%)

	Nominal wages
Agriculture, Hunting and Forestry	184.2
Fish Catching, Fishery	162.5
Mining and Quarrying	170.1
Procession Industry	142.8
Production of Electricity, Gas and Water and their Distribution	142.0
Construction	106.8
Trade; Repair of Cars, Home Appliances and Goods of Personal Consumption	165.6
Restaurants and Hotels	162.5
Financial Operations	150.1
Transport and Communications	181.8
Real Estate Operations, Leasing, Consumer Services	150.2
Public administration	178.4
Education	152.6
Health Care and Social Assistance	176.9
Communal, Social and Personal Services	148.9
Total	157.4

Source: State Department of Statistics of the Ministry of Economy.

<sup>1</sup> Source: State Department of Statistics of the Ministry of Economy, data from the current production and labor statistics.

recorded in the following sectors: construction, real estate operations, leasing, and consumer services, trade, agriculture, education. In addition, in QI 2008, compared to QI 2007, decrease of value-added per employee has been registered for all the remaining sectors of the economy. Hotel and restaurant businesses are outstanding from this standpoint.

Real increase of labor productivity as an indicator of supply expansion represents by itself a significant counter-inflationary factor. However, even higher increase of wages, which took place during the accounting period, led to a significant gap between demand and supply and was conducive to acceleration of inflation (in QI 2008 the rate of increase of monthly average wages outpaced the growth rate of value added per employee by 45%).

## 2.2. MONETARY AGGREGATES

During the first six months of 2008 the reserve money increased by 101.6 million Lari (6.8%) to amount to 1600.2 million Lari by end-June. In terms of monthly average rate, compared to December, the reserve money increased by 129.9 million Lari (9.0%).

The impact of the NBG interventions at the TIBFEX was affecting the money market in terms of its expansion. The demand exceeded significantly the supply at the TIBFEX. As a result, under the conditions of Lari appreciation (1.595-1.413 Lari/USD), net purchases by the NG amounted to 305.6 million USD (458.6 million Lari). In addition, as a result of currency conversions by the government, net sales by the

NBG amounted to 420.3 million USD (630.7 million Lari). It can be said that in general, as an overall result of these operations (operations conducted at the TIBFEX and governmental currency conversions), money in circulation has been reduced by 172.1 million Lari.

From the beginning of 2008 increase of government deposits has been registered. According to the last data for June,

GRAPH 2.1.1  
MONTHLY AVERAGE WAGES OF AN EMPLOYEE BY SECTOR, QI 2008

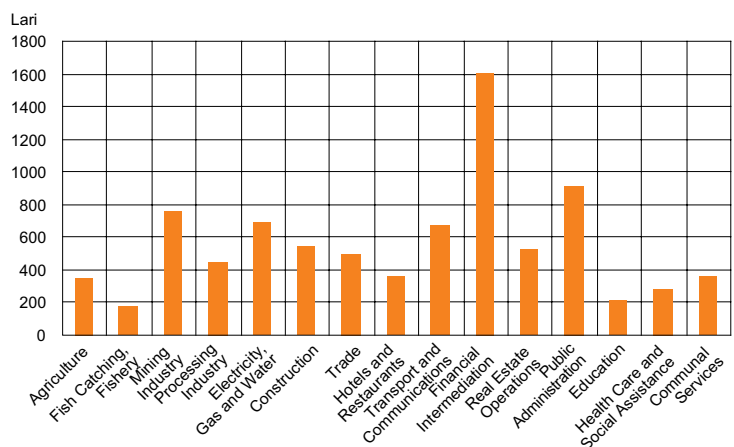


TABLE 2.1.2  
REAL VALUE ADDED PER EMPLOYEE IN QI 2008, COMPARED TO QI 2007 (%)

	Real Value Added
Agriculture	104.8
Manufacturing	94.9
Construction	133.4
Trade	110.2
Hotels and Restaurants	79.8
Transport, Communications	82.1
Financial Intermediation	93.9
Real estate Operations, Leasing and Commercial Activity	129.2
Public Administration, Defense	97.5
Education	100.7
Healthcare	96.3
Other Services	80.3
Total	112.6

Source: Department of Statistics of the Ministry of Economy.

their volume was 627.4 million Lari. During the accounting period the increase of balance on this account amounted to 180.0 million Lari. Such increase of governmental balances was conditioned by the foreign currency denominated component, which increased by 198.6 Lari.

During the same period the Eurobonds issued by the government of Georgia have been placed in the amount of 500 million USD. A part of this money has been accumulated in the Sustainable Development Fund and the Future Generations Fund, while a part was transferred to the governmental deposits. Thus, these sums did not affect the money market.

The NBG still relied on auctions of Certificates of Deposit as a main instrument of the monetary policy. The total amount of liquidity withdrawn by means of this instrument from the money market during the accounting period amounted to 1315.5 million Lari. During the same period 1539.6 million Lari worth Certificates of Deposit have

been repaid. As a result, net amount of monetary resources withdrawn by means of Certificates of Deposit from the system amounted to 180.1 million Lari. Thus, through CDs the NBG reduced the total amount of the reserve money as of end-period by 11%. On the one hand, intensive use of Certificates of Deposit is conducive to development of short-term securities market and improves liquidity management by commercial banks. On the other hand, it plays an important role in achieving the monetary policy targets. Taking into account the multiplier effect, the above-mentioned amount of absorbed liquidity by means of reserve money reduction limited expansion of the M2 aggregate. This, in turn, mitigated the increase of general price level. During the accounting period use of the flexible Certificates of Deposit somewhat softened inflationary pressure. In particular, this pertains to the monetary component, which emerged at the foreign exchange market as a result of foreign currency flows and large volume of budgetary expenditures.

From the beginning of 2008 the NBG began announcing the monetary policy interest rate, which is determined by the Monetary Policy Committee on a regular basis. According to the decisions of the Committee, on January 23, February 20, and April 16, the main interest rate (on the 7-day Certificates of Deposit) was increased by 100 basis points in each case to amount to 10%, 11%, and 12%, respectively.

Despite the fact that according to the end-period data, the volume of overnight loans extended to commercial banks equals zero, commercial banks actively relied on this mechanism (overnight loans) during the first six months of

TABLE 2.2.1  
DYNAMICS OF THE RESERVE MONEY  
END OF MONTH DATA, 2008

	12.07	01.08	02.08	03.08	04.08	05.08	06.08
Reserve money	1498601	1338939	1392331	1413540	1522132	1508768	1600239
Money in circulation	1310488	1184525	1225042	1287123	1391544	1348253	1413237
Deposits of Bank	188113	154414	167289	126418	130588	160515	187002
Required Reserves	1170	59	59	59	59	59	-
Balances on corresponding accounts	186943	154355	167231	126359	130529	160456	187002

TABLE 2.2.2  
DYNAMICS OF THE RESERVE MONEY  
AVERAGE MONTHLY DATA, 2008

	01.08	02.08	03.08	04.08	05.08	06.08
Reserve money	1420749	1413282	1447780	1533334	1543217	1572458
Money in circulation	1217136	1199674	1244064	1334405	1351649	1360751
Deposits of Bank	203613	213607	203716	198929	191567	211707
Required Reserves	140	59	59	59	59	53
Balances on corresponding accounts	203473	213548	203657	198870	191509	211654

the year. Commercial banks used this instrument for settlement purposes under short-term liquidity deficit conditions.

The net liabilities of banks, according to the end-June data, reduced from 303.5 million Lari to 180.1 million Lari.

As a result of the above-mentioned monetary flows, the reserve money increased by 101.6 million Lari during the accounting period. This increase largely falls on the increase of cash in circulation. Its volume increased by 102.8 million Lari to equal 1413.2 million Lari. The volume of balances on the corresponding accounts of commercial banks in the NBG remained almost unchanged (187.0 million Lari).

### 2.2.1. BROAD MONEY

During the first half of 2008 the M3 aggregate increased by 207.3 million Lari to equal 4187.9 million Lari. The foreign currency denominated deposits decreased by 77.8 million Lari during the accounting period amounting to 1.8 billion Lari by end-June. This reduction falls only on current accounts of customers. The deposits denominated in the national currency increased by 201.8 million Lari to reach 1.2 billion Lari by the end of the period.

During the accounting period the broad money M2 increased by 13.4% (285.1 million Lari), which, along with increase of deposits in national currency, was conditioned by increase of volume of cash outside of banks.

By end-June the annual growth rate of broad money aggregates, M2 and M3, amounted to 28.9% and 46.8%, respectively.

### 2.3. CERTIFICATES OF DEPOSITS AND OVERNIGHT LOANS

As of June 30, 2008, the money mass withdrawn from circulation by means of Certificates of Deposit amounted to 180.1 million Lari, while net withdrawal equaled 180.1 million Lari. By the end of QI 2008 the analogous figure stood at 467.2 million Lari and 392.2 million Lari, respectively. As it seems, money withdrawal reduced significantly during the QII and has a diminishing trend. The minimum level of withdrawal was reached in the first half of the year, namely on June 27. This indicator stood at 177 million Lari by then. As of June 30, amount of money mass withdrawn by means of Certificates

TABLE 2.2.1.1  
MONTHLY CHANGES IN MONETARY AGGREGATES  
END OF MONTH DATA, 2008

	01.08	02.08	03.08	04.08	05.08	06.08
<b>Broad money /M3/</b>	<b>3981686</b>	<b>3951402</b>	<b>4026932</b>	<b>4278872</b>	<b>4155079</b>	<b>4187900</b>
Monetary mass /M2/	2018547	2071878	2258946	2358767	2316461	2417078
Cash outside the banking sector	1038612	1072474	1122923	1219459	1186454	1235407
Lari in circulation	1184525	1225042	1287123	1391544	1348253	1413237
Deposits in national currency	979935	999404	1136024	1139308	1130008	1181671
Deposits in foreign currency	1963139	1879524	1767985	1920106	1838618	1770822

GRAPH 2.3.1  
LIQUIDITY WITHDRAWAL AND RATIO OF NET WITHDRAWAL TO THE RESERVE MONEY (%)  
31 MARCH 2008 – 30 JUNE 2008



of Deposit equaled 11.3% with respect to the reserve money, while this figure stood at 33.1% on March 31, and 25.1% on December 25, 2007. One of the main reasons of such dynamics, along with the reduction on volume of ejections by means of certificates of deposit, was the 13% increase in the volume of the reserve money from March 31 until June 30 of 2008.

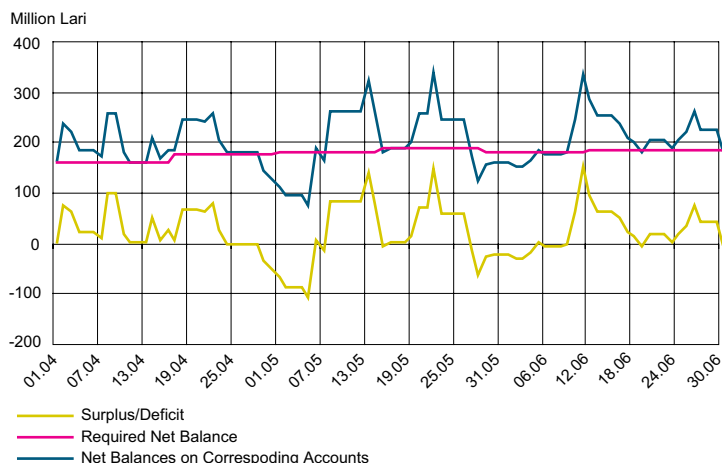
During QII 2008 net balance on Lari corresponding accounts of banks exceeded required reserves, on average, by 24.4 million Lari. Standard deviation amounted to 50.6 million Lari. However, at end of April/beginning of May and end of May/beginning of June, there were much smaller amounts on Lari corresponding accounts than required net balances. Due to high growth rates of loans, including loans to physical persons, rendered by banks, significant liquidity deficit has emerged at a certain point of time. This was evident in the third decade of April, and in particular, May. As of the deficit financing, the banks actively relied on the NBG overnight loans and short-term interbank loans. During certain days

the banks used the maximum of the daily limit set by the NBG – 150 million Lari.

During QII 2008, similar to the previous quarter, the NBG regularly issued 7-day and 91-day Certificates of Deposit. According to the decision of the Monetary Policy Committee, the main interest rate of the monetary policy, interest on 7-day Certificates on Deposit, was changed just once, namely, on April 17, when it was raised from 11% to 12%. This decision was aimed at lowering market demand and, thus, reducing inflation. Accordingly, interest rates hikes have been registered at the auctions of Certificates of Deposit. Namely, from April 1 until April 15, 75.8 million Lari worth of 7-day Certificates of Deposit with 10.7 weighted average interest rate have been placed. From April 17 until end-June 207.1 million Lari worth of 7-day Certificates of Deposit with 11.7 weighted average interest rate have been placed. Total amount of Certificates of Deposit placed at the auctions during QII 2008 amounted to 283 million Lari. The weighted average interest rate equaled 11.4%. The amount of placement decreased significantly as compared to QI. In particular, during the period of January-March 578.8 million Lari worth of Certificates of Deposit with weighted average annual interest rate of 9.8% have been placed at auctions.

According to the decision of the Monetary Policy Committee of the NBG, maximum interest rates on three month Certificates of Deposit have been increased from 17% to 18% as of April 17 and 19% as of June 26. During QII 2008 164.1 million Lari worth of 3-month Certificates of

GRAPH 2.3.2  
NET BALANCES ON LARI CORRESPONDING ACCOUNTS OF BANKS, REQUIRED NET BALANCE AND SURPLUS/DEFICIT OF LIQUIDITY





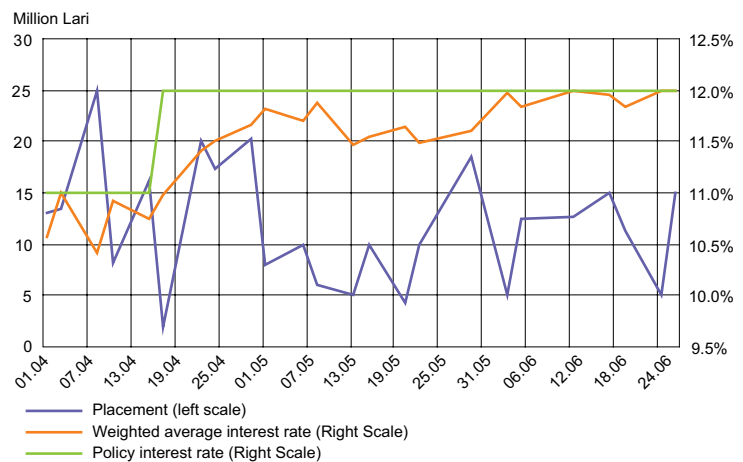
Deposit with weighted average annual interest rate of 17.8% have been placed at auctions. As a rule, the emission (supply) of three-month Certificates of Deposit significantly outpaced the demand during QII 2008<sup>1</sup>. Accordingly, the interest rates registered at the auctions either agreed with or trailed insignificantly (by 0.01 percents) the maximum interest rate.

During QII of the current year, along with the reduction of liquidity, the issue of financing banks' liquidity deficit became more important. During this period, the NBG overnight loans played an important role. The NBG increased in May the overnight loans financing limit from 75 million Lari to 150 million Lari. During QII the interest rate on overnight loans increased from 16% to 20%. On the one hand, this reflected the overall tendency of interest rate hikes by the NBG. On the other, this was aimed at conveying the signal to commercial banks that, despite the NBG overnight loans was there to help them in overcoming temporary liquidity problems, they would have to manage liquidity independently in order to avoid the permanent deficit. In the latter case, banks would have been forced to borrow more expensive resources.

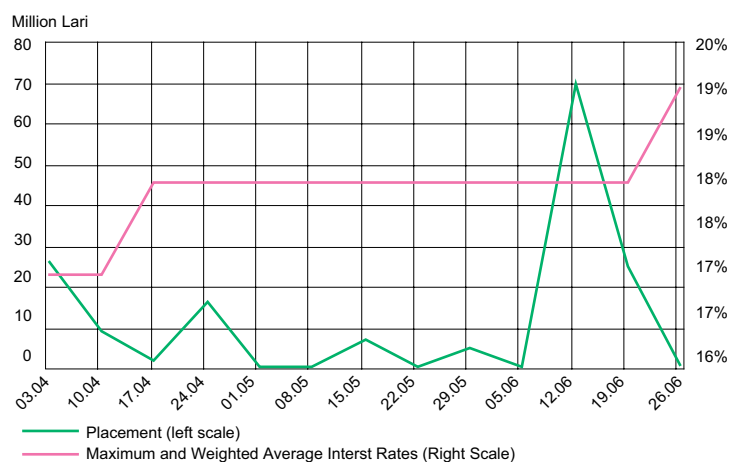
During QII 2008 77 deals have been reached between the NBG and commercial banks. Their total volume amounted to 2284.7 million Lari, which is approximately 2 times more than in QI (35 deals with the total volume of 1064.1 million Lari). The number of

banks participating in these deals is increasing. It is worthwhile to mention that during QIV of the past year only 4 deals with the total volume of 73 million Lari have been reached. Commercial banks relied on Certificates of Deposit, as well as the Euro and the USD as collateral.

GRAPH 2.3.3  
PLACEMENT OF 7-DAY CERTIFICATES OF DEPOSIT, POLICY INTEREST RATE AND WEIGHTED AVERAGE INTEREST RATE



GRAPH 2.3.4  
PLACEMENT OF THREE-MONTH CERTIFICATES OF DEPOSIT, THEIR WEIGHTED AVERAGE AND MAXIMUM INTEREST RATES IN QII 2008



<sup>1</sup> The only exception is the auction of June 12, at which the demand on 91 days certificates of deposit agreed with the supply (70 million Lari).

## 2.4. INTERBANK LOANS

According to the information received from banks, the amount of loans in national currency during QII 2008 increased significantly to reach 2964 million Lari, while it stood at 2058 million in QI and 394 million Lari in QIV 2007.

The number of deals in Euro has also increased (2162 million). Number of deals in Euro exceeded the number of deals in other currencies, including Lari and USD (the latter amounts to 578 million USD).

The largest number and volume of deals in national currency was registered in April, where the record mark of 1563 million Lari has been reached. Subsequently it decreased to 964 million Lari in May and 777 million Lari in June. On the contrary, the volume

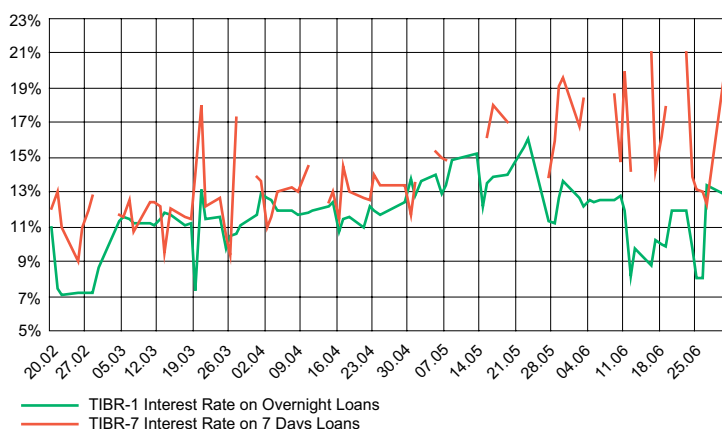
of loans in Euro increased during the same period to reach a record high level of 811 million in June. This points to the fact that, along with depreciation of the US Dollar, the banks became much more interested in Euro. Overall, the significant increase of volume of deals in the interbank market is a positive factor for the development of Georgia's financial system.

It is worthwhile to mention that short-term deals dominate in the interbank market. For example, 98% of Lari denominated loans falls on one-to-fifteen-day maturity loans. The share of overnight loans is 82%. The analogous situation exists in the markets for Euro and USD denominated loans, where the share of the above-mentioned instrument is 86% and 70%, respectively.

From February 20, 2008 the NBG calculates the TIBR1 and TIBR7<sup>1</sup> indices. This is a weighted average annual interest rate on loans with one-to-seven-day maturity. This instrument creates a possibility to assess the impact of monetary policy conducted by the NBG. TIBR1 and TIBR7 indices show that, despite certain volatility, interest rates grew in QII. As regards TIBR1, this tendency was more evident in May, when the weighted average annual interest rate on Lari denominated overnight loans grew from 12% registered in March to 14.9%.

While comparing interest rates on 7-day loans and CDs, higher interest

GRAPH 2.4.1  
TBILISI INTERBANK INTEREST RATES ON LARI  
DENOMINATED SHORT-TERM LOANS\*  
20.02.2008-30.06.2008

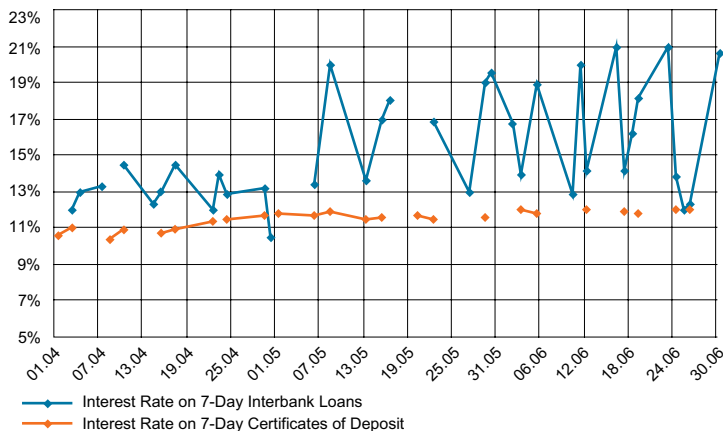


\* Note: If no deals are registered for loans of any given category during a business day, then an empty space is left on the graph instead of an interest rate.

<sup>1</sup> TIBR1 index encompasses uncollateralized loans with maturity of one operational day. TIBR7 includes loans with under-7-day maturity. This also comprises all those uncollateralized loans, which are not accounted for in TIBR1 calculation.

rates are being registered in the interbank market. This is conditioned by the fact that, as a rule, revenues received by banks from the CDs are more profitable than revenues received from loans extended to other banks. Less risk is an advantage of the Certificates of Deposit. In addition, interbank lending requires more shareholders' equity, which is unfavorable for a commercial bank to lend. As for three-month interbank loans, only one deal took place in QII 2008. Thus, the interest rate comparison between these loans and the CDs of the same maturity does not provide sufficient information.

GRAPH 2.4.2  
WEIGHTED AVERAGE INTEREST RATES ON 7-DAY CERTIFICATES OF DEPOSIT AND 7-DAY INTERBANK LARI DENOMINATED LOANS IN QII 2008



\* Note: If no deals are registered for loans of any given category during a business day, then an empty space is left on the graph instead of an interest rate.

**BOX 2. MORTGAGE CRISIS IN THE USA**

The mortgage crisis in the US has started at the end of 2006. This period can be characterized by an increase of number of overdue loans and foreclosures<sup>1</sup>. As a result, 1.5 million home ownerships have been foreclosed. This is 53% higher than in 2006. Despite the measures conducted by the government, the number of foreclosures also continues to grow in the current year. Problems related to mortgage finance accelerated drop of real property prices from 2007 to 2008, which has been transformed into a global financial crisis.

A real property boom which preceded the above-mentioned crisis and resulted

in the increase of real property prices, reached its peak in 2005.

High growth rate of prices in the market was conditioned by robust demand, which itself was largely conditioned by availability of cheap mortgage resources.

While financing the mortgage loans the US banks relied on sales of loans as obligations. This made it easier for banks to raise financial resources. In this case, instead of attracting deposits, these loans were financed through the resources of third parties. The attraction to the mortgage finance is conditioned by commission fees earned

<sup>1</sup> Foreclosure procedures are initiated by court orders when a borrower violates contract conditions for loans coverage.

from each deal. Accordingly, the banks were motivated to render as many as possible loans of this type. In QII 2008 the mortgage loans market volume exceeded 6 trillion USD. These loans took a significant share of the total volume (27 trillion USD) and overtook the share of the US Treasury bills.

Given that mortgage loan risk is transferred to the third party which purchases the obligation, the banks had fewer incentives to scrutinize financial positions of borrowers. As a result, the amount of mortgage loans rendered to persons with unreliable and doubtful credit history (so called sub-prime loans) grew. The mentioned type of loans became widespread in the US in 2005 and reached 20% of the mortgage market. Such a popularity of sub-prime obligations was conditioned by a large number of workers and low-income families willing to purchase housing. For this category of borrowers sub-prime loans were the only means to purchase real estate. Continued increase in real property prices created a possibility of covering principal and interest by means of borrowing new, bigger loans. In addition, there was a hope that this tendency would continue even further. As a result, in 2004 the number of the US homeowners hit the record mark of 69.2 million.

Sub-prime mortgage loan is a mortgage loan with variable interest rate, which initially had a low interest rate, hence, relatively modest monthly payments. After a fixed period the interest rate increased and became dependant on the interest rate set by the FRS. This became too heavy of a burden to borrowers.

This was worsened by limitations of available refinancing options due to slight decrease of prices caused by a construction boom. As a result, the number of overdue loans has increased substantially. In QIV 2007 the share of loans overdue 90 days or more amounted to 20% of total volume of loans.

The construction boom caused by increases in prices and number of houses available as a result of foreclosures, created excess supply in the market. As a result, the unprecedented process of real estate price drops started throughout the country, unprecedented in the US since 1930s. As of December 2007, the real estate prices were 10.4% lower compared to the same period of the previous year. Price drop is anticipated for the next year too. This indicator will be particularly high in those states, which enjoyed big construction booms.

High frequency of defaults on mortgage obligations driven by price drops on real property has substantially damaged commercial banks and various financial institutions both within the US and abroad. Numerous European and Asian banks had invested in the US mortgage obligations. As a result, as of June 2008, the total of recognized loss throughout the globe amounted to 400 billion USD.

In order to overcome the crisis, the US Congress has adopted a decision, according to which approximately 300 billion USD has been allocated to bail out hundreds of thousands of homeowners with problems in mortgage payments.

3.9 billion USD has been allocated for fixing the problem of foreclosed homes, which have a negative impact on their neighborhoods. 15 billion USD will be spent on softening of tax burden. Certain tax breaks are also anticipated in addition to covering loans of less than 7500 USD for particular types of owners.

The US Federal Reserve System, in coordination with central banks of other countries, undertook various measures to overcome this crisis. The main interest rate of the FRS was cut from 5.25% in September of 2007 to 2.25% in April of 2008. The procedure of borrowing by banks from the Fed has also been simplified. Fed and central banks of other countries have also conducted open market operations. All of this was aimed at supplying necessary liquidity to markets.

By end of 2007 the FRS developed an effective facility for tackling the interbank loan market problems<sup>1</sup>. Through this facility the FRS supplied more than 100 billion USD to banks to solve their financial problems. Despite success of this operation, the US financial markets still remain under a strain.

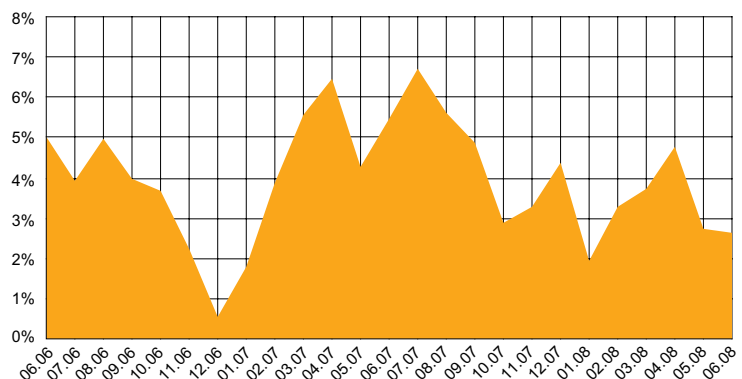
The efforts of the FRS aimed at solving the crisis are not limited only by monetary instruments. The new rules have been set, according to which the criteria for mortgage crediting have been tightened. The President of the FRS, Mr. Ben Bernanke, presented a number of initiatives to the society aimed at improving loan market conditions. Among other issues, he pays a lot of attention to transparency of information and improved risk management by banks as factors conducive to rational crediting.

<sup>1</sup> Term Auction Facility (TAF).

## 2.5. BANKING SECTOR

Growth of the Georgian banking sector continued throughout the accounting period. However, there is a decelerating trend in the growth rate of loans. Compared to December 31, 2007, the banking sector credit portfolio increased by 20.7%. Overall, the amount of loans extended by the commercial banks to the economy equaled 5527.3 million Lari.

GRAPH 2.5.1  
GROWTH RATE OF TOTAL LOANS



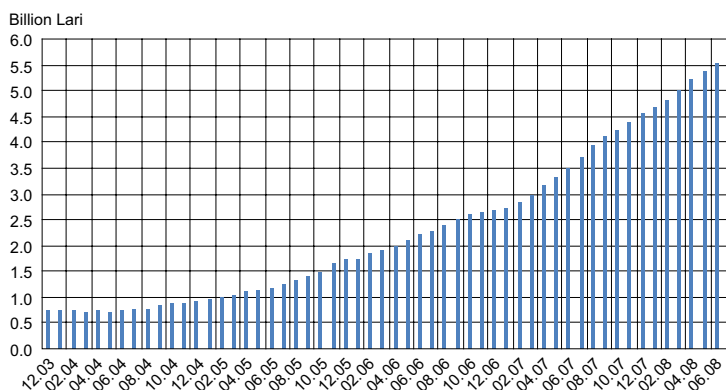
It is important that from the standpoint of maturity structure of loans provided by the banks, long-term loans grew by 19.8% during the accounting period. In addition, long-term loans accommodate 69.8% of total loans and remain almost at the level of the beginning of the current year. Such a position of long-term loans is, on the one hand, conditioned by introduction of other means of long-term crediting in the market (such as mortgage finance, automobile loans and similar types of crediting) and, on the other hand, by matching the demand of entrepreneurs with long-term financing. Compared to

the previous years, active reliance of banks on long-term financing facilities is to a degree conditioned by availability of foreign credit resources and possibility to attract these in larger quantities than previously. Despite a recent increase of interest rates in international capital markets, resources mobilized through external credit lines (from non-resident commercial banks and various financial institutions) are cheaper and have a longer maturity, compared to deposit liabilities attracted in the domestic market. This enables banks to intensify their long-term crediting policy.

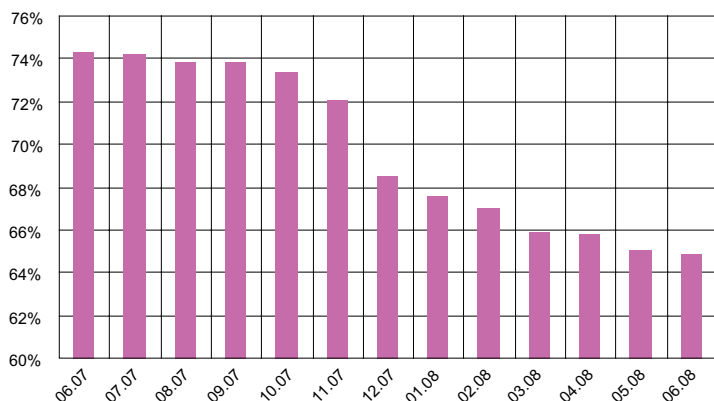
During the accounting period the volume of loans provided to physical persons increased by 38.2%. This increase is conditioned by an introduction of mortgage financing, According to the available data, it increased by 25.0 million Lari to reach 128.3 million Lari. In addition, very important role is played by various products falling into the category of consumer credit. Among these, it became particularly popular in the banking sector to use a system of installment payments jointly with various trading entities. It is also worthwhile to mention an enhanced possibility for physical persons to obtain consumer credit by means of credit cards. In addition, new products, such as pension and student loans (tuition crediting) have emerged in the Georgian market.

Despite such growth of consumer credit, the biggest share of total loans falls on credits provided to legal persons equaling 63%. The volume of loans rendered to legal persons increased by 12.4% during the accounting period, which along with increasing capabilities of the banking sector, was conditioned by an increased

GRAPH.2.5.2  
TOTAL LOANS



GRAPH.2.5.3  
LOAN DOLLARIZATION



demand of entrepreneurs for credit resources and robust economic activity in the country.

During the first half of the current year the growth rate of credit denominated in the national currency amounted to 34.9%. As a result, the loan dollarization ratio decreased to 64.9%. Despite this reduction of loan dollarization, the largest part of credits provided to the economy still falls on foreign currency. The volume of loans provided in foreign currency increased by 14.1% (the growth rate of loans provided in foreign currency is calculated based on the Lari exchange rate against the USD at the end of the accounting period).

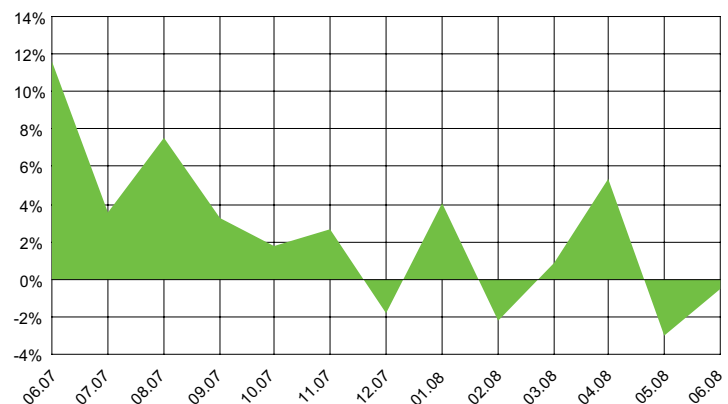
As of June 30, 2008, the share of overdue loans amounted to 1.6%. This is less than the same parameter at the beginning of the year when it equaled 1.7%. The share of overdue loans provided in the national currency is even higher and stands at 2.0%.

**Deposit Liabilities** increased by 123.9 million Lari (4.4%) during the six months of 2008 to equal 2952.5 million Lari. The above-mentioned increase largely falls on Lari denominated deposits, which increased by 201.8 million Lari to equal 1181.7 million Lari. This, in turn, was conditioned by an increase of term deposits in the national currency. Besides, volume of deposits in foreign currency decreased by 77.8 million Lari and the volume of foreign currency denominated deposits equaled 1770.8 million Lari by the end of the accounting period. However, the volume of deposit liabilities, taking into consideration exchange rate volatilities, increased by approximately 87.3 million USD (based on recalculation of the Lari exchange rate against the USD

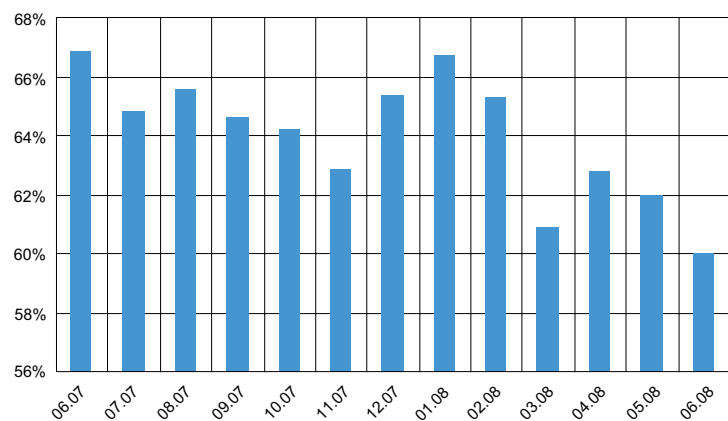
for the beginning and end of the period). Also, it must be mentioned that net balances of the accounts of legal entities have somewhat been reduced. The annual growth rate of deposit liabilities of the banking sector amounted to 23.2% in June.

During the accounting period, based on the growth rate of volume of foreign currency and Lari denominated deposits, deposit dollarization rate continued to decrease. From December 2007 until end-June of 2008 it decreased by 5.4% to equal 59.9%.

GRAPH.2.5.4  
GROWTH RATE OF DEPOSITS



GRAPH.2.5.5  
DEPOSIT DOLLARIZATION



**BOX 3. SCALE OF MONEY REMITTANCES TO GEORGIA**

Money remittances serve as an important source of capital inflows for many developing countries. Georgia is not an exception in this regard. Money remittances to our country exceed 8% of the GDP. In addition, they constitute more than a half of the FDI and more than a quarter of exports of goods and services. Their impact on the balance of payments is almost equivalent to that of exports of services, exceeding the impact of international tourism revenues 2-3 times (See the table below). According to the World Bank data<sup>1</sup>, the largest recipients of money remittances in 2007 are India, China, and Mexico. However, according to the ratio of transfers to the GDP, Tajikistan and Moldova are leading with 36.2% for each country. In this list the fourth place belongs to Kyrgyzstan with 27.4%. This parameter is also high in Armenia – 18.4%. The ratio is low for Azerbaijan – 4.1%, Estonia – 2.4%, Latvia – 2.4% and Lithuania – 3.3%.

It is noteworthy that the volume of monetary transfers to the country almost does not affect the level of dollarization

(which increased by 10 percentage points during the last one-and-half years).

This might point to the fact, that money remittances are mostly used by the citizens of Georgia as a means of financing current consumption and investing in real estate. Transfers to a lesser degree serve as a means of saving. Money remittances received by households equal approximately 10-15% of their consumption. However, if we take into consideration the fact that approximately 5% of households obtain money remittances from abroad, it becomes evident that the latter play a solid role in the consumption of these families.

In this regard, it is important to discuss the impact of foreign currency, and the US dollar in particular, on the purchasing power of these transfers. Empirical studies by the commercial banks show that modern systems of money remittances are flexible and numerous enough to allow people to send the currency, which is favorable to them (the USD, the Euro, the Russian Ruble), especially when the exchange rate this currency affects the purchasing power of the beneficiary. If we take into account the fact that during the recent period the amount of sums transferred from the US to Georgia tends to decrease (transfers from the US amounted to 3.5% of total in June of 2008) and the share of transfers from the EU continues keeps rising, one can predict the behavior of donors to be adequate while choosing the type of currency for transferring to Georgia.

TABLE 1

	2007 QI	2007 QII	2007 QIII	2007 QIV	2008 QI	2008 QII
Money Remittances, millions USD	163.8	189.0	247.0	266.4	213.8	248.6
As a percentage of:						
GDP	8.2	7.8	9.1	8.7	8.0	9.2*
FDI	49.9	52.2	54.7	45.4	54.3	46.6*
Exports of Goods and Services	27.5	23.3	28.3	29.6	26.0	27.6*
Household Consumption	9.7	11.1	14.7	12.3	9.7	10.7*
Foreign Currency Denominated Deposits	20.9	19.4	22.6	22.6	17.5	19.6

\* Estimation

<sup>1</sup> <http://siteresources.worldbank.org/EXTDECPROSPPECTS/Resources/476882-1157133580628/BriefingNote3.pdf>



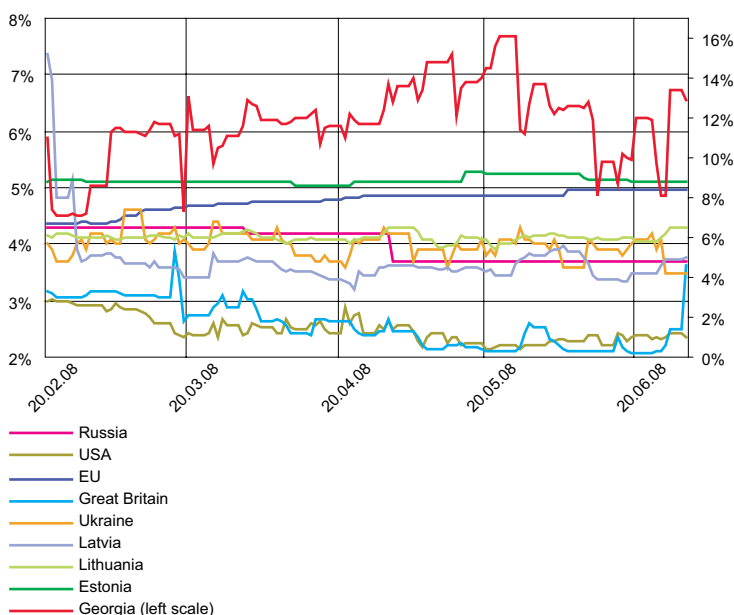
**2.6. FACTORS AFFECTING THE EXCHANGE RATE**

In such a small and open economy as Georgia, exchange rate significantly affects the level of inflation. Thus, throughout the years the NBG was involved in the TIBFEX trades, and hence, in establishment of the Lari exchange rate against the USD. At the beginning of 2000s, given a high demand for foreign currency at the foreign exchange, the NBG resorted to expansion of supply of foreign currency as a means of protection of Lari. From 2005, along with an increase of foreign capital inflows, the NBG has intervened in the market from both sides in order to maintain a stable exchange rate. Clear formulation of the tasks of NBG and shift of its focus to price stability during the recent period enabled it to decrease the frequency of interventions. This has created more room for accommodation of wider exchange rate variability. Currently, the market mechanism determines the Lari exchange rate against the USD. The NBG undertakes interventions only to avoid sharp exchange rate volatility.

The exchange rate volatility affects the real sector of the economy in different ways. Depreciation increases inflationary expectations, and as a result, the level of inflation. Appreciation makes imported goods cheaper, which might positively affect the level of inflation, especially when the country is heavily dependent on imports. However, at the same time, appreciation affects negatively the trade balance and country’s revenue-generating potential. Thus, it is worthwhile to identify the factors affecting the dynamics of the Lari exchange rate and the magnitude of these factors influencing the exchange rate volatility.

In general, one of the major factors conditioning the dynamics of the exchange rate is the difference of interest rates in the money markets of different markets. High interest rates attract additional foreign capital to the country. As a result, supply of foreign exchange in the domestic market increases leading to local currency appreciation. In Georgia mostly the interbank overnight loans market is developed. TIBR1 is quite volatile this year varying within the range of 7-16%. During the current year, the average interest rate on overnight interbank loans equaled approximately 12%. At end-May due to the liquidity deficit in the market, TIBR1 reached the maximum point of 16.1%. Subsequently though, along with alleviation of the liquidity deficit problem, the interest rate has declined to approximately 13% at end-QII. Despite this, the interbank interest rate in Georgia substantially exceeds the similar rate in Georgia’s trade partners. During the current year the interbank interest rates vary within

GRAPH 2.6.1  
INTERBANK INTEREST RATES IN GEORGIA’S MAJOR TRADE PARTNERS



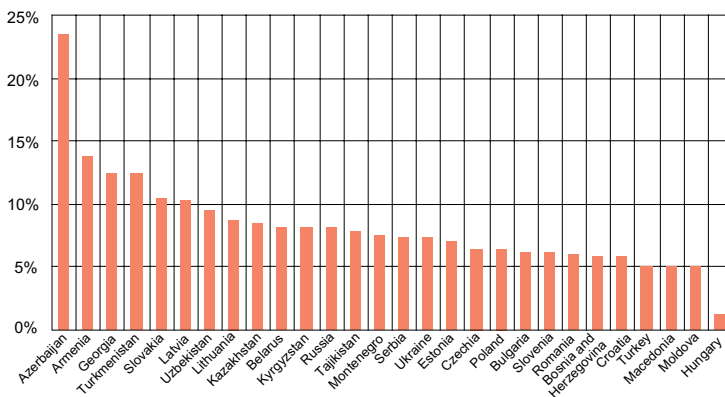
the range of 2-5% in the US, Euro zone countries, United Kingdom, Russia, Ukraine and the Baltic countries.

High interest rate is an additional incentive for foreign capital inflows. Despite this, it is not a sufficient precondition. Investors are interested in investing in countries, which enjoy high returns on investment, i.e. in countries with rapidly developing

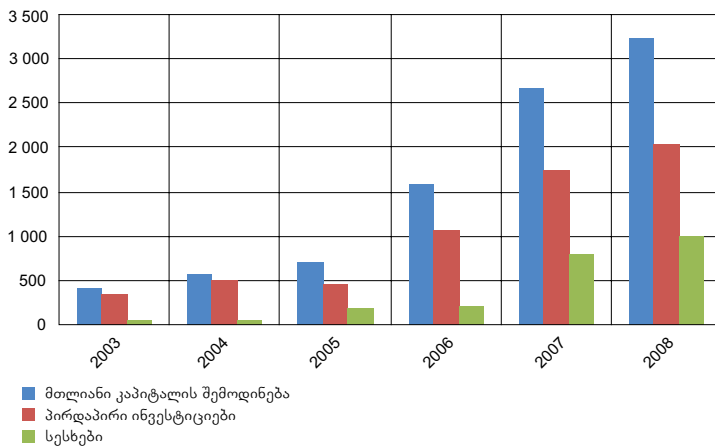
economies. In general, countries in transition are characterized by large inflows of foreign capital. During the recent years the rate of economic growth was sufficiently high in Georgia. The GDP growth rate amounted to 9.6% in 2005, 9.4% in 2006, and, the record high in the Georgian history, 12.4% in 2007. According to the forecast for the current year, the real GDP growth will probably reach approximately 9%. This is quite high compared to the Eastern and Central European countries. According to the data for 2007, the growth rate of Georgia's GDP was one of the highest among the region's countries. Such high growth rates of the recent years create incentives for investors to invest resources into the rapidly developing country with the possibility to receive high returns.

As a result of the above-mentioned, the inflow of foreign capital to Georgia has increased substantially during the recent years. This pertains both to FDI and external loans, particularly in the banking sector. The total capital inflows for 2007 amounted to approximately 2.7 billion USD, which is 69% higher than in 2006. The increase falls mostly on FDI. The FDI, compared to the previous year, grew by 63% to reach 1.7 billion USD. In 2007 an important role was played by the capital inflows stemming from private sector borrowings. Such investments amounted to 202 million USD, while in 2007 this indicator reached 780 million USD. This was largely conditioned by an increase of commercial banks' borrowings from international financial institutions and large foreign banks. During QI 2008 the capital inflows amounted to approximately 800 million USD. For the year end it is expected that the total

GRAPH.2.6.2  
REAL GDP GROWTH RATES IN 2007 IN CIS AND CENTRAL AND EASTERN EUROPEAN COUNTRIES



GRAPH.2.6.3  
CAPITAL INFLOWS TO GEORGIA (MILLION USD)  
2003-2008



capital inflows will exceed 3.2 billion USD, which is 21% higher than in 2007<sup>1</sup>.

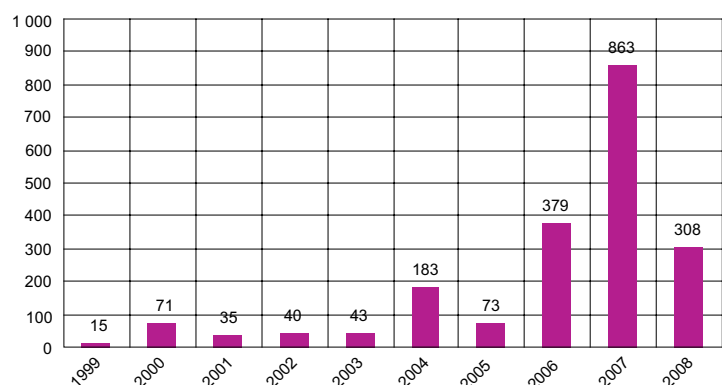
As a result of capital inflows, the supply of foreign currency increases in the domestic market, which is clearly reflected in transactions conducted at the TIBFEX. During the past several years foreign currency purchases by the NBG at the TIBFEX have grown significantly. While net purchases by the NBG were approximately 50 million USD in early 2000s, they reached 180 million USD in 2004 and hit the mark of 862 million USD in 2007.

As a result of such increase of foreign currency supply at the TIBFEX, the Lari exchange rate against the USD started to appreciate moving to a new equilibrium rate. By end-2003 one US Dollar was equal to 2.075 Georgian Lari. After subsequent inflow of capital, increase of foreign currency supply resulted in further appreciation of the Lari exchange rate. By end of QI 2008 one US Dollar was valued at 1.418 Lari. During the last year the Lari appreciated by further 15% against the USD. For the first half of 2008 a further 11% appreciation of Lari has been registered. Focusing on its main task – to maintain a low and stable level of inflation – enabled the NBG to reduce the frequency of interventions in the TIBFEX. As a result, the Lari exchange rate moved quicker to the new equilibrium point. If the inflow of capital retains the pace, which was the case for the first six months of the year, further appreciation of the Lari exchange rate is expected during the second half of the year. However, closer to the equilibrium point, short-term fluctuations of the Lari exchange rate are also more probable.

An additional factor affecting the exchange rate is the current account balance.

Deterioration of the current account balance increases demand for foreign currency in the domestic market because more foreign exchange is required to cover the increased volume of imports. As a result, the domestic currency depreciates against the foreign currency. Opposite mechanisms operate in the case of improvement of the current account balance. Current account balance is negative in Georgia throughout the years. It continues to deteriorate, which is extremely worrisome. In 2007 the negative current account balance reached 2 billion USD while it stood at only 1.2 billion in 2006. During QI 2008 it equaled 723 million USD, which is approximately 80% higher than in the same period of 2007. According to the forecasts, current account deficit for 2008 will reach 3 billion USD. The same tendency is registered in relation to the GDP. While the current account deficit stood at 15% of the GDP in 2006, this ratio reached 19.75 in 2007. This is quite a high mark. Such deterioration of the current account

**GRAPH 2.6.4**  
**VOLUME OF NET PURCHASES OF THE FOREIGN CURRENCY BY THE NBG AT THE TIBFEX**

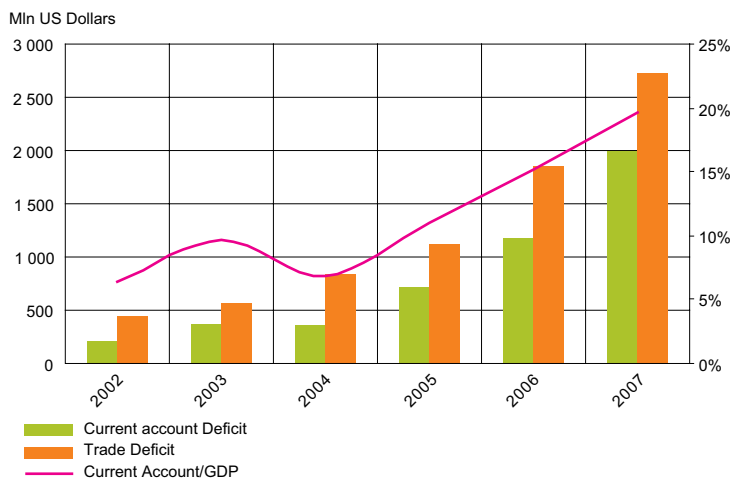


<sup>1</sup> Forecasted indicators for 2008 are used.

is mostly conditioned by the trade deficit, which, in turn, is conditioned by a rapid growth of imports. Imports of goods and services reached 6 billion USD in 2007, which is 34% higher than in the previous year. In 2006 the growth rate of imports of goods and services increased by 32% compared to 2005. During QI 2008 imports

of goods and services were 40% higher than in the analogous period of the previous year. Exports of goods and services grow by a relatively modest pace. In 2006 the annual growth rate of the latter amounted to 17%, while it stood at 25% in 2007. During QI 2008, compared to the analogous period of 2007, exports of goods and services grew by approximately 38%.

**GRAPH 2.6.5**  
CURRENT ACCOUNT DEFICIT AS A PERCENTAGE OF GDP



**TABLE 2.7.1**  
SHARE OF ECONOMIC SECTORS IN GEORGIA'S GDP (%)  
QI 2008

Sector	Share in the GDP	Growth Rates	Share in the GDP Growth
Agriculture and Fishing	16.53	9.18	1.52
Mining and Quarrying	0.41	28.49	0.12
Manufacturing	7.83	0.70	0.05
Electricity, Natural Gas and Water Production and Distribution	3.75	24.84	0.93
Household Processing	2.47	10.72	0.26
Construction	9.04	11.43	1.03
Trade	15.99	16.87	2.70
Hotels and Restaurants	3.66	15.29	0.56
Transport	8.47	-7.92	-0.67
Communications	2.30	15.04	0.35
Financial Intermediation	8.89	15.80	1.41
Real Estate Operations, Leasing and Commercial Activity	2.82	6.19	0.17
Imputed Rent of Using Owner's Property	5.08	1.82	0.09
Public Administration, Defense	1.65	16.09	0.27
Education	1.63	5.87	0.10
Healthcare	1.31	-2.16	-0.03
Other Communal, Social and Personal Services	3.01	17.77	0.54
Employment in Households	0.13	17.52	0.02
FISIM Adjustment	-4.05	-2.82	0.11
<b>GDP in Market Prices</b>	<b>91.89</b>	<b>9.24</b>	<b>8.49</b>
Taxes on Goods	7.20	9.50	0.68
Subsidies on Goods	-0.50	8.43	-0.04
<b>GDP at Market Prices</b>	<b>100.00</b>	<b>9.28</b>	<b>9.28</b>

The above-mentioned tendencies in the dynamics of the current account force Lari to depreciate. However, large capital inflows outweigh negative effects of the current account deficit, and as a result, in the short-term the Lari will maintain its upward trend against the USD. As we can see, despite increasing capital inflows of the recent years, the probability is not high that these inflows will continue at the same rate as it was registered in 2004-2007. If such an outlook holds for the future, in the long-term period it is possible that the Lari exchange rate will start to depreciate.

As we have already mentioned, several factors determine the Lari exchange rate. Interest rate and GDP growth rate differentials create incentives for international investors to invest in Georgia. As a result, foreign currency supply increases in the currency market and Lari exchange rate appreciates. On the other hand, large current account deficit affects the exchange rate towards depreciation. However, the latter currently does not affect the long term dynamics of the exchange rate.

## 2.7. PRODUCTION AND DEMAND

According to the QI 2008 data, the value of the GDP produced in Georgia at market

prices amounted to 4182.5 million Lari. The real GDP growth, compared to the same period of the previous year, reached 9.2%.

Double-digit GDP growth rates have been registered in almost all the sectors. Despite this, the largest share of the GDP growth still falls on several sectors of the economy, in particular, trade, agriculture, financial intermediation, and construction. In QI 2008 the share of these sectors in the GDP growth amounted to approximately two thirds of the total. Contrary to the previous periods, growth rate in manufacturing, which is traditionally regarded as a very important branch of the economy the growth rate only stood at 0.7%. This contributed only 0.05% to the overall GDP growth.

As it can be seen from analyzing the above five major sectors, they were particularly important in 2004-2006, when they accounted for at least 90% of the GDP. Stable growth rates were registered in construction, whose contribution to the GDP growth always exceeded 1 percentage point during that period. On the other hand, the impact of agriculture was also important during this period. However, this impact was both positive and negative.

**2.7.1. HOUSEHOLD CONSUMPTION**

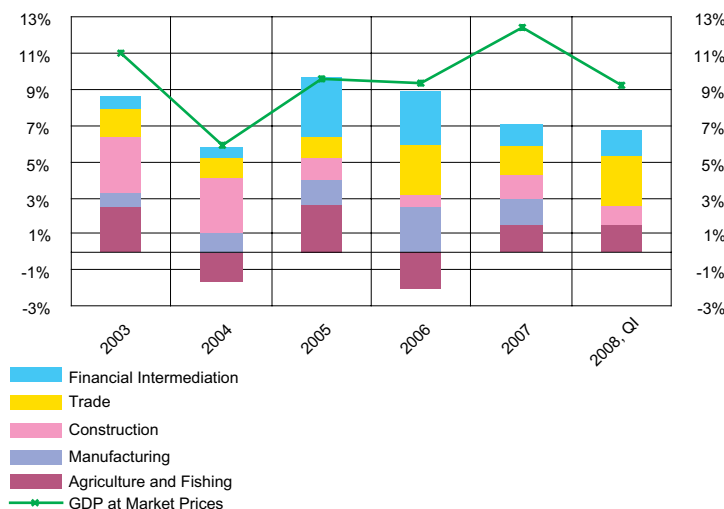
Household consumption amounted to 3247.5 million Lari in QI 2008, which is 12.7% higher in nominal terms than in the same period of 2007. Traditionally, the household consumption is high in the first quarter, which is largely

conditioned by the holiday period at the beginning of a year and high seasonal levels of fuel and energy consumption.

**2.7.2. GOVERNMENT EXPENDITURES**

In QI 2008, compared to QI of the previous year, the growth rate of government expenditures amounted to 64.3% to reach 1066.9 million Lari in the GDP calculated by the expenditure method. Traditionally, government expenditures significantly affect domestic demand. In addition, during the last period approximately one fifth of government expenditures is directed towards imports. As per request of the Government of Georgia, the NBG conducted 251.2 million USD worth of currency conversions during QI 2008.

**GRAPH 2.7.1**  
**SHARE OF FIVE MOST IMPORTANT SECTORS IN THE GDP**  
2003- QI 2008



### 2.7.3. INVESTMENTS

In QI 2008, compared to the same period of the previous year, gross capital formation decreased by 49.1 million Lari to reach 1121.4 million Lari. Respectively, the share of total investments in GDP decreased from 34.3% to 26.8%.

Reduction of capital formation was totally conditioned by decrease of domestic investments. Opposite to the domestic investments, growth of foreign investments continued throughout the period.

Compared to QI 2007, volume of FDIs in Georgia increased by 65.1 million USD and reached 393.56 million USD.

Even bigger increase has been registered in foreign portfolio investments. Between the periods under consideration, the volume of portfolio investments grew from -1.8 million USD (this means that net outflow of portfolio investments took

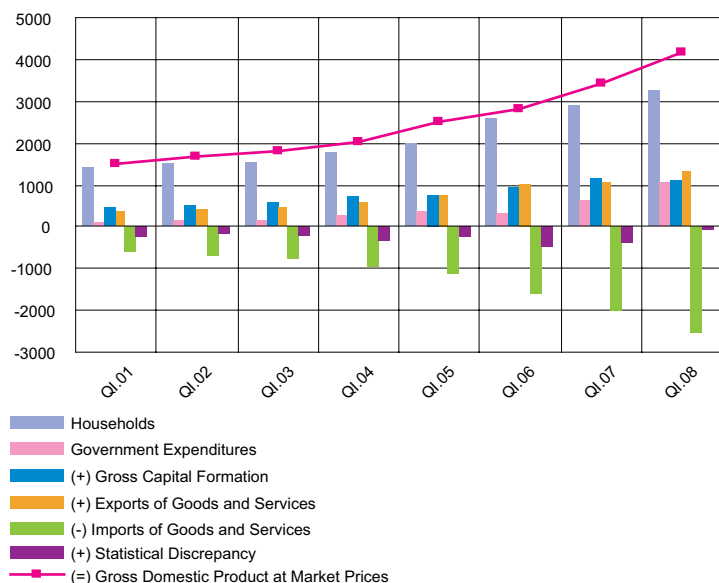
place during the previous period) to 180 million Lari. It should be noted that in QI 2008 the volume of foreign portfolio investments is at its highest surpassing not only any quarterly volumes but also any annual volumes of the past. In QII 2008 large-scale portfolio investments outside the banking sector took place for the first time. Portfolio investments in and outside the banking sector occurred to be almost equal to each other. Growth of portfolio investments is a sign of confidence in the Georgian economy.

In QI 2008, the current account deficit grew even further to reach 723.6 million USD, which is 82.3% higher than in the same period of the previous year. However, it must be said that the current account deficit was financed through foreign investment inflows and money remittances.

### 2.8. EXTERNAL TRADE

During the first half of 2008, compared to the same period of the previous year, exports of goods increased by 48%, while import expanded by 43%. Accordingly, negative trade balance widened by further 41% to equal 1.29 billion USD. However, it must be taken into consideration that external trade data, in accordance with currently employed methodology, is accounted for in the US Dollars, which depreciated significantly during the period. Taking into account the above-mentioned, it would be interesting to analyze the above indicators in a more stable currency, the Euro. If exports and imports data are converted into Euro using period-average exchange rate, the respective growth rate for exports will amount to 28% and

GRAPH 2.7.3.1



24% for imports. Growth rate of the trade balance would amount to 22%.

Unfortunately, due to inexistence of external trade price indices, it is difficult to distinguish price increase effect from real growth.

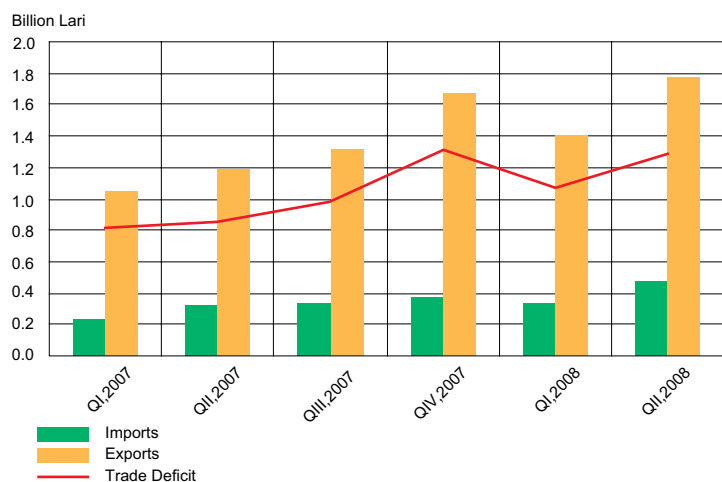
The first ten largest groups of goods in exports of the first half of 2008 comprise the following: ferroalloys, ferrous scrap metals, copper mines and concentrates, fertilizers, cars, gold, spirits and alcoholic beverages, copper scrap, and mineral water, which exceed 70% of total exports. Exports of ferroalloys grow fast and account for 18% of total exports in the first half of 2008. This produce is supplied mostly to the US, Mexico, Canada, Turkey and Ukraine. Exports of ferroalloys, compared to the first half of 2007, grew by 172%. It is important to note that such a high growth rate is largely conditioned by price increase, since the physical volume of exports of this group grew only by 15% (See graph 2.8.2).

The next position is held by ferrous scrap metals, which was a major exports item throughout the years. It stood at 10% of total exports. It is interesting that both exports (re-exports) and imports of cars increased substantially during the previous year. Namely, in the first half of 2008, compared to the same period of the previous year, these numbers doubled. Imports of cars with 11% of the total imports hold the second place after oil products. Exports of cars amount to 7% of registered exports and hold the fifth place. It is noteworthy that the share of car exports in 2008 amounted to 16% of total car imports. This means that the major part of cars are imported for domestic consumption. Exports of cars are mostly directed to Armenia and Azerbaijan, while only a small part falls on Turkey and

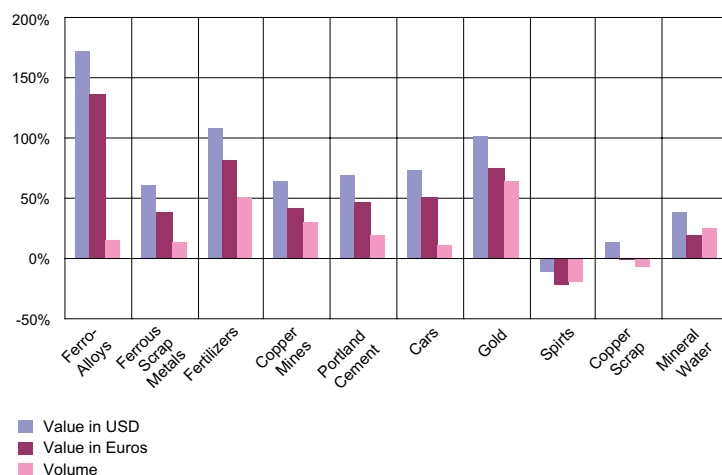
Ukraine. As a rule, new cars are being re-exported. Hence, average exports price is two times higher than the imports price.

Thus, during the accounting period, exports growth rate outpaced imports growth rate. Exports of certain manufacturing produce can be characterized with high growth rate. These are ferroalloys and fertilizers. However, as it is evident from the diagram, the largest part of increase of exports of ferroalloys falls on price increase.

**GRAPH 2.8.1**  
IMPORTS, EXPORTS AND TRADE DEFICIT



**GRAPH 2.8.2**  
GROWTH RATES OF MAJOR EXPORT ITEMS IN TERMS OF VALUE AND PHYSICAL VOLUME  
(first half of 2008 to first half of 2007)



### 3. INFLATION FORECAST

For inflation forecasting purposes the NBG relies on the following two methodologies: On the one hand, it observes price indices on certain goods, which are included in the consumption basket, and based on certain assumptions and forecasts, calculates forecasted short-term inflation; On the other hand, it relies on medium-term econometric modeling of inflation.

As we have already mentioned, price gains on certain goods included in consumption basket were probably of one-time nature. Hence, the effect obtained by these price gains will no longer affect the inflation rate of 2008. For example, in August of 2007, increase of prices on white wheat flour pushed the annual inflation up by 1.6%. After that bread price has not experienced sharp changes. As a result, since August of the current year, the effects from the increase of bread price (1.6%) will not increase annual inflation. The list of components of the consumption basket, price gains on which last year were mostly of one-time nature, and which will not influence the current year's inflation, are presented in the table 3.1 below.

TABLE 3.1  
THE EFFECTS TO BE EXCLUDED FROM 2008 ANNUAL  
INFLATION (%)

	07.07	08.07	09.07	10.07	11.07	12.07
White Wheat Bread	0.2	1.6	1.6	2.2	3.1	3.1
Wheat Flour	0.0	0.1	0.1	0.2	0.3	0.3
Sunflower Oil	0.0	0.1	0.8	1.5	1.4	1.4
Liquid Gas	0.0	0.0	0.1	0.1	0.1	0.1
Price of Intracity Transportation by Bus, Micro Bus, and Taxi	0.5	0.5	0.5	0.5	0.6	0.6
Total	0.8	2.3	3.1	4.5	5.6	5.6

While forecasting the inflation rate for 2008 the NBG excludes effects derived from one-time increases of prices on certain products during the remaining months of the year, as well as global price dynamics on such products as fuels, wheat, and sugar towards reduction. For inflation forecasting purposes the NBG uses an assumption that regulated prices will not change during the remaining part of a year. According to the NBG assumption, annual inflation on other components of consumption basket will, on average, stand at 6.2%, which is in line with the share of monetary factors in annual inflation for June.

Taking into account the above-mentioned, it is expected that by the end of QIII and QIV of the current year, annual inflation will stand approximately at 8.3% and 6.4%, respectively.

**The estimated econometric model used for inflation forecasting is given as follows:**

$$\begin{aligned} \delta p = & 0,013 \delta e_{-2} - 0,080 \delta e_{-4} + 0,033 \delta m_{-1} + \\ & + 0,027 \delta m_{-2} - 0,041 \delta m_{-3} + 0,010 \delta p^{oil}_{-1} + \\ & + 0,031 \delta p^{food}_{-1} - 0,031 ecm \end{aligned}$$

where:

$p$  is Consumer Price Index;

$m$  – Money Mass;

$e$  – Exchange Rate/USD;

$p^{oil}$  – Average Global Price of Oil;

$p^{food}$  – Fruit and Vegetable Price;



$ecm$  – is a variable describing a long-term equilibrium and is expressed as follows:

$$ecm = p_{-1} - 0,39e_{-1} - 0,61m_{-1} + 1,96y_{-1} - 6,37$$

while  
 $y$  is the GDP.

In the equation seasonal and dummy variables are also included to describe seasonality and structural changes.

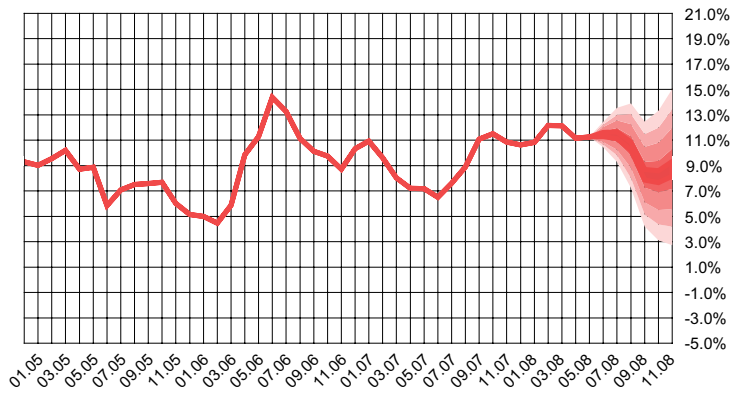
With regard to the explanatory variables included in the model the following assumptions are made:

- The volume broad money excluding foreign currency deposits will grow by 47% annually by end of 2008;
- The real GDP growth rate will equal 9.0%, which is obtained by using linear trends of sectoral GDP growth;
- Lari nominal exchange rate against the USD will not change, which can be explained by the fact that, in general, exchange rate is depicted by random walk process;
- Prices on fruit and vegetables, like in the previous year, will grow by 10% annually;

TABLE 3.2  
**FORECAST OF CERTAIN GOODS PRICE INDICES AND THEIR SHARE IN THE ANNUAL INFLATION 2008**

	Price Indices of Goods from Consumption Basket (December 2006 = 1)									Share in Inflation %	Share in Average Annual Inflation %	Share in Inflation %	Share in Average Annual Inflation %	Assumption
	Factual			Forecast										
	04.08	05.08	06.08	07.08	08.08	09.08	10.08	11.08	12.08					
<b>Total Inflation</b>										<b>8.3</b>	<b>10.8</b>	<b>6.4</b>	<b>9.5</b>	
White Wheat Bread	1.36	1.36	1.37	1.38	1.38	1.38	1.39	1.39	1.39	1.6	2.7	0.2	2.1	Constant
Wheat	1.29	1.29	1.30	1.30	1.30	1.30	1.30	1.30	1.30	0.0	0.0	0.0	0.0	Bloomberg Forecast
Wheat Flour	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	0.2	0.3	0.0	0.3	Bloomberg Forecast
Maize Flour	1.19	1.18	1.19	1.19	1.19	1.19	1.19	1.19	1.19	-0.1	0.0	0.0	0.0	Constant
Sunflower Oil	1.81	1.82	1.81	1.81	1.81	1.81	1.81	1.81	1.81	0.8	1.3	0.3	1.0	Constant
Sugar	0.86	0.85	0.84	0.89	0.89	0.89	0.96	0.96	0.96	0.0	-0.1	0.1	-0.1	Bloomberg Forecast
Salt	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	0.0	0.1	0.0	0.0	Constant
Cold Water	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	0.0	0.1	0.0	0.0	Constant
Waste Disposal	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	0.0	0.1	0.0	0.0	Constant
Electricity	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0	0.0	Constant
Natural Gas	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	0.0	0.5	0.0	0.3	Constant
Liquid Gas	1.22	1.22	1.23	1.33	1.33	1.33	1.47	1.47	1.47	0.1	0.1	0.1	0.1	Bloomberg Forecast
Oil	1.11	1.13	1.27	1.26	1.26	1.26	1.31	1.31	1.31	0.0	0.0	0.0	0.0	Bloomberg Forecast
Diesel Fuel (L-42, L-62)	1.34	1.36	1.53	1.51	1.51	1.51	1.57	1.57	1.57	0.0	0.0	0.0	0.0	Bloomberg Forecast
Gasoline (Regular, Premium)	1.23	1.25	1.36	1.38	1.38	1.38	1.54	1.54	1.54	0.7	0.5	0.8	0.7	Bloomberg Forecast
Transportation by Suburb Train	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.0	0.0	0.0	0.0	Constant
Transportation by Long Distance Train	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	0.0	0.0	0.0	0.0	Constant
Transportation by Bus and Subway	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	0.0	0.0	0.0	0.0	Constant
Transportation by Intracity Bus, Micro Bus and Taxi	1.19	1.19	1.24	1.24	1.24	1.24	1.24	1.24	1.24	0.6	0.7	0.4	0.7	Constant
Transportation by Suburb Bus	1.17	1.17	1.26	1.26	1.26	1.26	1.26	1.26	1.26	0.1	0.1	0.1	0.1	Constant
Transportation by Intracity Bus	1.04	1.05	1.16	1.16	1.16	1.16	1.16	1.16	1.16	0.0	0.0	0.0	0.0	Constant
Other Production	1.10	1.11	1.09							4.2	4.3	4.1	4.3	6.2-% Annual Growth

GRAPH 3.1  
ANNUAL INFLATION FORECAST



- Global oil price will not drop and the price per barrel will on average equal 137 USD.

The result obtained by using the estimated annual inflation model can be depicted as follows:

Based on the results received, annual inflation by the end of QIII 2008 with 10% probability will change from 8.2% to 9.3%.

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