NATIONAL BANK OF GEORGIA

INFLATION REPORT

I Quarter, 2007



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INTRODUCTION

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In Q1 of 2007, compared to the same quarter of the previous year, the annual inflation rate has increased from 4.6% to 9.7%. The price level in March 2007 fell by 1.1%, but the annual inflation rate, compared to the previous quarter, was still high (8.8%). However, in Q1 of 2007 the price-decreasing trend was clearly manifested, with the exception of the month of January, when the utilities fees were doubled and there was a temporary increase in greens prices, which made a corresponding impact on the January inflation.

In the accounting period the growth of economy crediting volumes (annual growth rate – 57.4%, in QIV of 2006 – 57.2%) and the growth of deposits in the economy (annual growth rate – 47.8%, in QIV of 2006 – 58%) continued. Compared to December, 2006, the reserve money decreased by 3.4% as of end-March, 2007 and its monthly average rate decreased by 6.6%. The annual growth rate of the reserve money also dropped, amounting to 17.3% (19.2% in QIV of 2006). The annual growth rate of M2 and M3 broad money aggregates made up 25.5% and 33.5%, respectively, which is also lower compared to the previous quarters.

Similar to the whole 2006, in the accounting period, the appreciating trend of the Lari exchange rate was sustained. Overall, in Q1 of 2007 the Lari exchange rate appreciated by 0.79% with respect to the U.S. dollar. As of the real effective exchange rate of Lari, in the accounting period it appreciated insignificantly by 0.37% and the nominal effective exchange rate of Lari appreciated by 0.89%.

The current account deficit in Q1 of 2007 made up 385.8 million USD.

The traditionally high growth rate of tax revenues was maintained in the accounting period. The growth rate amounted to 58%, compared to the analogous period of the previous year. Meanwhile, the share of grants in the revenue part of the state budget decreased.

Since January 1, 2007 the new Customs Code became effective, and the Law of Georgia "On Customs Duty"

expired – the provisions of the latter were incorporated into the Customs Code in the form of amendments and addenda. At present, the customs duty rates are equal to 0%, 5%, and 12%. Almost 90% of goods are subject to 0% customs duty.

Despite drastic negative external shocks, the Georgian economy maintained high growth rates. The annual real GDP growth rate was equal to 9.4% in 2006. The quarterly real GDP growth rates in 2006 compared to the average growth rate of the previous year made up 8.5%, 7.9%, 9.6%, and 11.5% respectively.

The forecasted CPI for the end-2007, with 20% probability, is within the range of 4.53-9.44%.

Changes in Consumer Prices

Table 2.1 Products with Largest Inflation Impact Q1,2007

Products	Impact
Cheese, Iteration	-0.45%
Eggs	-0.22%
Sugar	-0.19%
Wood	-0.11%
Man's winter footwear	-0.07%
Cucumber	-0.06%
White Grain Bread	-0.06%
Dry Beans	-0.05%
Buckwheat	-0.05%
Chicken	-0.04%
Therapist's Consultation	0.13%
Onions	0.13%
Tangerines	0.15%
Rent of One-Room Apartment	0.16%
Apples	0.18%
Peaches	0.20%
Green Beans	0.21%
Garbage Collection Fee	0.29%
Drinking Water Fee	0.32%
Potatoes	0.47%
Greens	0.76%

Table 2.2 Products with Regulated Prices and Their Inflation Impact

	Average Price Changes In Georgia	Inflation Impact
Drinking Water Fee	66%	0.30%
Garbage Collection Fee	123%	0.30%
Electricity Fee	59%	1.70%
Natural Gas Fee	32%	0.50%

Figure 2.1 Monthly Inflation in Quarter 1



¹ The prices of the seasonal products, which are not available on the market at the given period, are calculated by the Statistics Department by means of the so-called "imputation method" and, accordingly, contribute to the inflation level.



The consumer prices in Q1 of 2007 grew by 2.4%. High inflation rates in January-February were largely conditioned by drastic price increases on greens and increase of drinking water and garbage collection fees.

The weighted food price decreased (by 2.5%) in March for the first time in the last 6 months. The impact of this decrease on the monthly deflation, due to the weight of food in the consumption basket, made up 1.1 percentage points (equal to the overall level of price decrease). In March, price decrease on vegetables and watermelons was important (8.6%), however their prices are still 18.5% higher than in December.

According to the March data, products with regulated prices made a significant impact on the annual inflation rate. In particular, the growth of fees on drinking water, garbage collection, electricity, and natural gas directly account for 2.8 percentage point increase in the annual inflation. In the coming months, further increase of the natural gas fee will probably increase the annual inflation by one additional percentage point.

As it was indicated above, the monthly deflation was conditioned by decrease of prices on certain commodities (which grew in the previous months). Commodity prices are generally stable, which is underlined by the importance of the core inflation. The latter equals 0.07% for the products within two-standarddeviations range (94% of the basket) and 0.02% - for the products within one-standard-deviation range (90% of the basket).

During 2006, the annual inflation calculated for the service sector moderately changed, but in the first





Figure 2.3

Price Increase Compared to December, 2006



Figure 2.4 Core Inflation



 $^{^{\}ast}$ by products within the range of one standard deviation (~85%)

three months of 2007 it grew to make up 10.8%, which exceeds the annual inflation rate calculated for the non-durable goods. The analysis of price changes in terms of durability of goods shows that prices of non-durable goods increased by 10.8% in a year, while price growth of durable goods equaled 2.2% and prices on semi-durable goods grew by 2.3%.

Compared to December 2006, prices on nondurable goods grew by 12.3%, prices on services – by 11.8%, whereas prices on semi- and durable goods decreased by 2.0% and 0.8% respectively.

Since December, 2006 prices on the commodity groups "Alcoholic beverages and Tobacco", "Housing appliances and equipment", and "Transport" are practically unchanged. In the first three months of 2007, prices on clothing and footwear decreased by 4.4%. On the contrary, there were price increases on the following commodity groups: "Food and nonalcoholic beverages" (3.0%), "Housing, water, electricity, gas, and other fuels" (8.2%), and "Healthcare" (5.0%).

^{**} by products within the range of two standard deviations $(\sim 93\%)$

Figure 2.5 Annual Growth Rates of M2 Money Mass (Monthly Average) and CPI



Table 2.3 CPI Inflation by Individual Components (%), Their Weight in the Consumption Basket (%) and Impact on the CPI (Percentage Point)

	12.2006	03.2007/02.	03.2007/02.2007 03.2007/03.20		2006 04.2006-03.2007/ 04.2005-03.2006		
	Weight	Inflation	Impact	Inflation	Impact	Inflation	Impact
Total	100.0%	-1.1%	-1.1%	9.7%	9.7%	10.5%	10.5%
Food and Non-alcoholic beverages	44.3%	-2.5%	-1.1%	14.3%	5.6%	15.9%	6.7%
Food	43.0%	-2.6%	-1.2%	14.7%	5.6%	16.4%	6.6%
Bread and Bakery	12.2%	0.3%	0.0%	6.8%	0.8%	3.6%	0.5%
Meat and Meat Products	6.6%	0.5%	0.0%	3.5%	0.2%	12.4%	0.8%
Milk, Cheese, and Eggs	1.1%	2.4%	0.0%	5.7%	0.1%	11.0%	0.1%
Oil and fat	5.2%	-10.7%	-0.5%	15.4%	0.6%	22.0%	0.9%
Fruit, grapes	3.5%	-0.7%	0.0%	4.8%	0.2%	3.1%	0.1%
Vegetables, Watermelons, incl. Potatoes	2.3%	10.2%	0.3%	71.1%	1.4%	35.4%	0.6%
and other Solanaceae	8.8%	-8.6%	-0.9%	27.2%	2.4%	33.1%	2.6%
Sugar, Jam, Honey, Syrups, Chocolate,	2.7%	-1.7%	0.0%	-6.6%	-0.2%	16.7%	0.4%
Pastry	0.1%	0.0%	0.0%	8.3%	0.0%	6.2%	0.0%
Other Food Products	1.6%	0.2%	0.0%	2.6%	0.0%	2.5%	0.0%
Non-alcoholic Beverages	3.7%	-0.2%	0.0%	-12.8%	-0.6%	-1.6%	-0.1%
Clothing and Footwear	5.0%	-1.5%	-0.1%	-3.0%	-0.2%	-3.1%	0.2%
Housing, Water, Electricity, Gas, and Other Types of Energy	10.3%	-0.3%	0.0%	31.4%	2.9%	24.3%	2.2%
Furnishings, Household Equipment and Renovation	3.7%	-1.2%	0.0%	1.4%	0.1%	0.7%	0.0%
Health care	8.0%	2.3%	0.2%	19.4%	1.5%	12.0%	0.9%
Transportation	9.0%	0.8%	0.1%	2.9%	0.3%	4.8%	0.5%
Communication	4.4%	0.0%	0.0%	0.1%	0.0%	-3.4%	-0.2%
Recreation and Culture	2.7%	1.2%	0.0%	-1.1%	0.0%	-0.4%	0.0%
Education	3.5%	0.0%	0.0%	5.3%	0.2%	1.4%	0.1%
Hotels, Cafes, and Restaurants	2.4%	-0.4%	0.0%	6.0%	0.1%	6.2%	0.2%
Miscellaneous Goods and Services	3.2%	-0.8%	0.0%	3.5%	0.1%	2.6%	0.1%
Non-durable Goods	68.0%	-1.5%	-1.1%	10.3%	7.0%	12.6%	8.4%
Semi-durable Goods	6.5%	-1.3%	-1.0%	-2.3%	-0.2%	1.5%	0.1%
Durable Goods	1.9%	-1.1%	0.0%	2.2%	0.0%	-3.0%	0.0%
Services	23.6%	0.4%	0.1%	10.8%	2.6%	7.0%	1.7%



Inflation Factors

3.1. Dynamics of Monetary Aggregates

In QI of 2007 the reserve money decreased by 40.6 million Lari (3.4%) and totaled 1152.7 million Lari at the end of March. In terms of average monthly rate, in March the reserve money decreased by 83.5% (6.6%) compared to December, 2006.

As of March 31, a significant increase in governmental deposits has been registered. From the beginning of the year their volume increased by 289.1 million Lari and made up 638.4 million Lari. The growth was mainly conditioned by the transfer of the NBG profit (40 million Lari) and the revenues from transfer of management rights of the Batumi Port (64 million USD) to the favor of GoG. Accumulation of such volumes of funds on the governmental deposits, excluding privatization proceeds and transfers, was driven by high rates of mobilization of revenues and traditionally moderate budget spending.

Banks' net liabilities decreased from 254.6 million Lari (December 31, 2006) to 236.8 million Lari. As of end-March, the volume of Certificates of Deposit (CDs) in circulation totaled 254.5 million Lari in nominal terms. The NBG purchased CDs in the amount of 17.8 million Lari.

The impact of the NBG interventions at the Tbilisi Interbank Foreign Exchange (TIFEX) was significant. In the accounting period the difference between the supply and demand of foreign currency at the TIFEX turned out large, which, taking into account seasonality factors, was unusual for the first quarter. As a result, under the conditions of slight appreciation of the exchange rate, the net CD purchases by the NBG totaled 143.7 million USD, i.e. money in circulation was increased by additional 246.2 million Lari. Due to this fact, balances of commercial banks on the NBG corresponding accounts increased by 63.6 million Lari. In the accounting period the NBG sold 21.6 million USD (37.0 million Lari) as a result of currency conversions.

Taking into consideration the above-mentioned monetary flows, in March 2007, the reserve money

aggregate totaled 1152.7 million Lari (end-period data), which was 40.6 million Lari less than in December, 2006. The annual growth rate of the reserve money in March made up 17.3% (monthly average data).

Broad Money

As of March 2007, from the beginning of the year, the broad money aggregate (M3) increased by 0.5% and made up 2674 million Lari, that was triggered by 2.9% growth of foreign currency-denominated deposits.

Since the beginning of the year the M3 parameter has increased by 12.7 million Lari and totaled 2674.4 million Lari. Compared to the analogous period of the previous year, it increased by 33.5%. Since the beginning of the year deposits denominated in foreign currency have increased by 36.5 million Lari and equaled 1308.9 million Lari by end-March. As of cash outside banks, its volume decreased by 7.9%, while in terms of average figures – by 3.8%. The M2 parameter decreased by 1.7% (23.8 million Lari) as of end-March, which was conditioned by decreased volume of Lari in circulation and increased deposits denominated in national currency.

3.2. Dynamics of Interest Rates, Deposit Liabilities and Economy Crediting

In QI of 2007 the annual growth rate of loans extended by the commercial banks made up 57.4% and totaled 3022 million Lari. It should be noted that in QIV of 2006 the growth rate of extended loans slightly slowed down and the quarterly growth rate equaled 7.2%. In QI of 2007 high growth rates of the volumes of loans extended were restored and made up 11.3%.

The share of short-term loans in total economy crediting made up 31.6% by the end of QI of 2007, compared to 32.4% in the same quarter of 2006. The increased share of long-term loans in the overall loan structure is explained by the loan policies of the commercial banks. The banks improve their risk management methods, which enables them to manage long-term loan portfolio better. Increased loan terms decrease banks' costs associated with extending new loans as well as satisfy the demand of economic agents for long-term loans, thus contributing to Pareto-efficient allocation of resources.

Table 3.1.1 Reserve Money Dynamics 2007, Month Average Data

	12.06	01.07	02.07	03.07
Reserve money	1268 754	1218 235	1208 282	1185 314
Money in Circulation	853 042	848 825	834 789	843 270
Bank Deposits	853 042	369 411	373 493	342 044
Required Reserves	415 712	224 227	222 223	230 922
Balances on Corresponding Accounts	194 305	145 183	151 270	111 123

Table 3.1.2

Reserve Money Dynamics 2007. End-Month Data

	12.06	01.07	02.07	03.07
Reserve Money	1193 231	1226 839	1200 329	1152 684
Money in Circulation	929 538	834 396	840 606	857 971
Banks Deposits	263 693	392 443	359 723	294 713
Required Reserves	224 559	219 303	223 649	231 147
Balances on Corresponding Accounts	39 135	173 140	136 074	63 566

Table 3.1.3

Monthly Changes of Money Aggregates 2007, Month Average Data

<u>12.06</u>	01.07	02.07	03.07
2 618 543	2 580 5/1	2 616 443	26/2403
1 327 034	1 295 595	1 287 117	1 334 653
774 437	742 375	743 895	745 340
867 628	840 015	837 685	846 038
552 597	553 219	543 223	589 312
1291 509	1284 977	1329 325	1 337 750
	12.06 2 618 543 1 327 034 774 437 867 628 552 597 1291 509	12.06 01.07 2618 543 2580 571 1 327 034 1 295 595 774 437 742 375 867 628 840 015 552 597 553 219 1291 509 1284 977	12.06 01.07 02.07 2618 543 280 571 616 443 1 327 034 1 295 595 1 287 117 774 437 742 375 743 895 867 628 840 015 837 685 552 597 553 219 543 223 1291 509 1284 977 1329 325

Table 3.1.4

Monthly Changes of Money Aggregates 2007. End-Month Data

	12.06	01.07	02.07	03.07
Broad Money /M3/	<u>2 661 674</u>	<u>2 583 541</u>	<u>2 712 182</u>	2 674 368
Money Mass /M2/	1 389 182	1 297 637	1 298 772	1 365 417
Cash Outside of Banks	827 357	739 864	752 811	761 988
Lari in Circulation	929 538	834 396	840 606	857 971
Deposits in National Currency	561 824	557 773	545 961	603 429
Deposits in Foreign Currency	1272 493	1285 905	1413 409	1 308 951

Source: NBG data

Figure 3.2.1. The Share of Short-Term Loans



Figure 3.2.2. The Share of Overdue Liabilities







The banks' activities intensify on the consumer market, conditioning higher growth rates of loans extended to physical persons than to legal persons. In QI of 2007 the volume of loans extended to physical persons increased by 69.1%, compare to 53.3% increase in the volume of loans extended to legal persons.

The share of overdue liabilities decreased, totaling 1.6% of total loans at the end of QI of 2007. This parameter equaled 2.8% in the same period of 2006. Decreased overdue liabilities indicates decreased risks in the banking sector. It is remarkable that in terms of overdue liabilities there is no significant difference between the loans denominated in foreign and in national currency. The share of overdue liabilities of the loans extended in national currency made up 1.6%, while in foreign currency – 1.5%.

The share of foreign currency-denominated loans in the total loans amounted to 74.7% at the end of QI of 2007. The same parameter in QI of 2006 made up 75.3%. Despite reduced level of loan dollarization during one year, the process of loan dedollarization seems to be slowing down. In QI of 2007 the share of foreign currency-denominated loans increased by 0.9 percentage points. It is remarkable that if we take into account appreciation¹ of the Lari exchange rate in the given period, the volume of loans extended in foreign currency grew at a higher rate than that of national currency-denominated loans.

It should be noted that long-term loans are much more dollarized, than short-term loans. At the end of QI of 2007 dollarization of long-term loans made up 83.2%, while dollarization of short-term loans equaled 56.5%. Increased dollarization in QI of 2007 was largely due to the increased dollarization rate of shortterm loans. In the given period dollarization of shortterm loans grew by 2.8 percentage points.

At the end of QI of 2007 the annual growth rate of deposits equaled 47.8% and totaled 1912 million Lari. The quarterly growth rate made up 4.3%, which was lower than 11.3% quarterly growth rate reached in QIV of 2006.

The increase in the volume of deposits is mainly due to the growth of current accounts. The volume of

¹ calculation of the share of foreign currency-denominated loans is effected by means of converting the value of foreign currency loans into national currency (using the appropriate exchange rate)

Figure 3.2.4. The Share of Current Accounts in Total Deposit Liabilities



Figure 3.2.5. The Share of Deposits Denominated in Foreign Currency



Figure 3.2.6.

Interest Rates on Loans by Maturity Periods (the figures on the balls denote the volume of loans)



current accounts grew by 61.1% per annum, whereas time deposits grew only by 36.7%. Despite different growth rates, the share of current accounts in the total deposit liabilities did not undergo historical changes and is confined to the range of approximately 50%.

The volume of deposits of legal persons increased by 59.6%, while that of physical persons - only by 38.1%. The share of legal persons' deposits is not affected by significant fluctuations either.

Dynamics of deposit dollarization practically follows that of loan dollarization. At the end of QI of 2007 the share of deposits denominated in foreign currency made up 68.4%. It should be noted that the level of deposit dollarization is significantly lower than that of loan dollarization. This difference is explained by the fact that commercial banks attract large volumes of funds in foreign currency, and, in order to avoid currency risks, extend loans in the same foreign currency. It happens despite the fact that demand of the economy for loans denominated in Lari exists. This proved by the fact that loans extended in national currency have higher interest rates than those denominated in foreign currency.

According to QI of 2007 data, the average interest rate on loans extended by the commercial banks in national currency made up 20.9%. At the same time, the average interest rate on foreign currency-denominated loans equaled 16.5%.

Interest rates on foreign currency-denominated loans were higher than those on loans in national currency only in the case of mediumand long-term loans. Interest rates on loans with maturity period between 1-3 months were almost identical for both national and foreign currency-denominated loans. The interest rates on loans with under 1 month maturity were significantly higher for loans in foreign currency. However, the share of loans with maturity period under 3 months is essentially small and accounts for only 8.9% of total loans.

It is interesting to note that the dollarization rate for the loans with maturity period of one







Figure 3.3.2. Dynamics of Lari Banknote Exchange Rate



Figure 3.3.3. Dynamics of the Lari Exchange Rate With Respect to the Euro and US Dollar 2005-2007



Source: NBG Data

year and less is not very high, making up only 56.5%. The same rate for the loans with maturity period over one year equals 83.2%.

It should be pointed out that longer maturity periods are correlated with lower interest rates in the case of loans and, on the contrary, with higher interest rates in the case of deposits. Thus, the spead between interest rates on loans and deposits is particularly large in the short-term period, decreasing along with the increase of maturity period. This is largely due to the costs associated with extending new loans. Such costs may be reduced by means of improving banking risks management, creating credit registers, and developing credit bureaus.

3.3. Exchange Rate, Dollarization and Balance of Payment

Foreign Exchange Market

In QI of 2007 the appreciating trend of the Lari exchange rate with respect to the US dollar, which continued over the previous year, was still present. However, it should also be pointed out that in the accounting period two short spells of Lari depreciation (each lasted for less than one week) were manifested. If in the beginning of the quarter the Lari exchange rate was 1.7135, as of March 31 it fell to 1.70, implying 0.79% appreciation. At the same time, compared to QI of 2006 the Lari exchange rate appreciated both for end-period (6.95%) and average-period (5.69%) data, which significantly exceeds the analogous appreciation rates of QIV of 2006 - 4.4% and 3.4%, respectively.

In the accounting period the activities at the TIFEX were still intense. Despite a certain decrease of turnover compared to the previous quarters, which was mainly due to seasonality factors, the turnover was considerably higher than in QI of 2006. In particular, the supply of foreign currency by the commercial banks grew 3.7 times and the demand – by 20 percent.

The dynamics of the Lari exchange rate at the TIFEX was similar to the one at the banknote exchange rate market, while the spread between buying and selling rates was relatively small in the accounting period (average-period values for buying and selling rates - 1.7072 and 1.7125, standard deviations - 0.007268 and

Figure 3.3.4. Dynamics of the Lari Exchange Rate with Respect to the UK Pound and Russian Ruble 2005-2007



Figure 3.3.5. Dynamics of the Lari Exchange Rate with Respect to the Swiss Franc and Turkish Lira 2005-207



Figure 3.3.6. Nominal and Real Effective Exchange Rates of Lari Indices

December 1995 = 100



0.007624 respectively). This indicates that the dynamics of the Lari exchange rate was determined by the same forces. At the same time, it should be pointed out that decreased standard deviation compared to the previous quarters shows that despite monotonously appreciating trend of the Lari exchange rate, the market is not troubled and its stability is growing.

The Lari exchange rate with respect to the Euro was traditionally determined by the devaluation of the USD with respect to the Lari and the dynamics of the USD exchange rate with respect to the Euro. Accordingly, the Lari exchange rate with respect to the Euro depreciated by 0.3% during the quarter. The dynamics of the Lari exchange rate with respect to other currencies was different. Lari appreciated with respect to the UK pound by 1.07%, depreciated by the same 0.6% with respect to the Russian ruble and Turkish lira, and appreciated by 0.7% with respect to the Swiss franc.

Real and Nominal Effective Exchange Rates

In QI of 2007 the real effective exchange rate appreciated insignificantly (by 0.37%), compared to QIV of 2006. At the same time, compared to QI of the previous year the appreciation equaled 4.98%. As of the nominal effective exchange rate, it appreciated by 0.89% during the quarter, whereas compared to March 2006, 2.73% appreciation was registered. The above dynamics of the real exchange rate is mainly determined by the nominal exchange rate dynamics.

The dynamics of the Lari real exchange rate for different currencies shows dissimilar processes. During the quarter, the Lari real exchange rate appreciated with respect to the Euro (2.82%) and the US dollar (1.68%), but depreciated with respect to the Turkish lira (0.61%) and the Russian ruble (0.61%).

Balance of Payment

In QI of 2007 the current account deficit totaled 385.8 million USD.

The current account deficit is still conditioned by the negative foreign trade balance, which exceeded 2 billion USD last year and in QI of 2007 equaled 597.7 million USD. In 2006 the negative trade balance

Figure 3.3.7. Lari Real Exchange Rate Against Different Currencies December 1995=100



Source: NBG Data

Figure 3.3.8.







was largely caused by increased investments and the Russian ban on the Georgian goods. In QI of 2007 large trade deficit is the result of higher growth rates of imports compared to the exports' growth rates. In particular, in QI of 2007 growth rate of imports against the same quarter of 2006 made up 36%, the exports grew only by 4% and made up 390.5 million USD. However, the underlying circumstances should be taken into consideration when interpreting the data. In particular, in QI of 2007 exports comparison is made against the period prior to the Russian embargo. Thus, in QI of 2006 Russian exports made up 43.8 million USD, while in QI of 2007 - only 13.3 million USD1. The negative outcomes of the Russian embargo are still not neutralized, which is particularly evident in the case of mineral water and natural grape wines. The exports of mineral water in QI of 2006 equaled 11.2 million USD, whereas in QI of 2007 they equaled only 5.7 million USD, which slightly exceeds the corresponding level of 2005. Mineral water exports to Russia were to a certain extent redirected to other countries. Thus, in QI of 2007, exports of mineral water to other countries (except Russia) increased by 2.7 million USD (or by 90%), compared to QI of 2006. Mineral water exports increased to Russia, Lithuania (the Lithuanian market was accessed after the embargo), Azerbaijan, Turkmenistan, and Kazakhstan. The exports of soft drinks² were relatively stable. The exports of both mineral water and soft drinks reached bottom in August-September of 2006 with stable growth thereafter (Figure 3.3.8)

The situation with natural grape wines is much more complicated. In QI of 2007 the wine exports equaled only 4.5 million USD, while in QI of 2006 the wine exports made up 21.5 million USD, and in QI of 2005 - 13.2 million USD. Immediately after the Russian embargo wine exports plummeted both in value and quantitative terms. Such situation continued up to date, with a small peak in December 2006 (Figure 3.3.9).

As of exports of nuts, which had a significant share in the Georgian exports and which was significantly affected by the Russian ban, after the embargo its volume did not decrease, and even rose. In 2005 the nuts exports made up 10.0 thousand tons (including 2.4 thousand tons of Russian exports), in 2006 it grew to

¹ Russian embargo did not affect all kinds of products and generally banned food and agricultural products. In QI Russian exports of railway comprised locomotives (7.3 million USD), ferroalloys (4.7 million USD), etc.

 $^{^{\}rm 2}$ This commodity group comprises different kinds of lemonade, coca-cola and similar products.

Table 3.3.1 Main Export Items (USD, millions)

Main Export Items	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1
Exports, Total	221.40	236.00	248.30	286.80	225.20
Of which:					
Copper Mines and Concentrates	10.17	23.01	21.61	24.75	21.00
Black Scrap Metals	13.55	20.33	19.47	19.08	20.80
Ferroalloys	19.63	20.09	30.22	19.85	18.11
Fertilizers, Mineral or Chemical, Nitrogen	9.98	9.02	13.46	14.17	14.29
Cars	4.48	9.48	15.50	21.17	13.10
Spirit Beverages	8.41	5.27	8.43	7.97	11.58
Nuts, Fresh or Dry	16.99	8.61	6.26	24.72	10.66
Gold, Crude or Semi- processed	11.10	11.85	12.54	13.89	9.44
Portland Cement	4.05	7.43	7.87	9.43	9.21
Water with Sugar Ingredients	4.73	6.21	5.93	6.18	7.40
Parts of Railway or Tram Locomotives	0.30	0.34	0.72	0.89	7.26
Copper Scrap Metals	3.76	7.99	9.29	9.12	6.83
Mineral Water	11.16	7.78	1.81	3.31	5.74
Natural Grape Wines	21.53	5.56	6.23	7.73	4.50
Other Goods	81.56	93.06	89.02	104.54	65.32

Table 3.3.2 Exports Dynamics by Main Partner-Countries (USD, millions)

Exports by Main Partner Countries	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1
Exports, Total	221.4	236.0	248.3	286.8	225.2
Of Which:					
Turkey	17.3	27.3	36.6	43.7	35.8
Azerbaijan	14.6	20.2	22.4	34.9	22.2
Armenia	12.4	20.8	18.2	22.2	21.5
Ukraine	12.8	14.0	14.7	15.5	17.0
Russia	43.8	10.0	13.1	8.7	13.3
Germany	6.9	10.9	6.5	21.1	11.8
Kazakhstan	2.7	3.9	3.0	5.8	11.2
United States	15.6	12.5	23.9	6.8	10.6
Canada	10.1	12.0	12.8	14.0	9.5
Spain	2.7	4.9	7.0	2.0	9.2
Bulgaria	11.6	20.2	18.3	12.2	7.9
Italy	7.3	6.3	2.8	7.7	7.3
United Kingdom	9.4	5.9	3.8	5.4	6.2
France	0.4	2.9	4.2	23.3	4.7
Greece	0.3	0.2	1.7	3.3	4.0
Other Countries	53.4	64.2	59.2	60.2	33.0

Table 3.3.3 Main Imports Items (USD, Millions)

Products	2006Q1	2006Q1	2006Q1	2006Q1	2006Q1
Imports, Total	682.5	887.1	1 023.2	1 085.0	1 044.5
Of Which:					
Oil Gases and Gas Carbohydrates	57.4	44.7	40.6	70.4	115.7
o.w. Natural Gas	57.1	43	38.9	68.4	114.2
Oil and Oil Products	80.8	122.5	142.1	97.7	97
Cars	65.5	72.8	70.2	86.9	79.1
Medicaments	25.4	31.1	25.5	32.6	36.5
Wheat Grain	16.9	20.7	26.9	34.5	26.4
Other Products of Black Metals	0.8	1.4	3.7	6.3	21.2
Carbon Metal Bars	6.2	8.9	11	7	19.3
Computers and Spare Parts Thereof	8	10.3	14.2	14	14.1
Radio- and Mobile Appliances	8.1	12.5	18.6	19.6	13.9
Sugar	11	16.4	22.4	15.8	12.6
Other Goods	402.6	546	648	700.2	608.6

12.6 thousand tons (0.7 thousand tons of Russian exports), while in QI of 2007 its volume increased by 5.7%, compared to the same period of 2006. It should also be pointed out that due to the price decrease on nuts, the exports decrease in value terms. Nuts are mainly exported to EU countries and Ukraine. The result of Russian embargo was also mitigated for the commodity group "spirit beverages" - 66% of the exports (5.55 million USD) in QI of 2006 accounted for the Russian market. Market diversification efforts resulted in 38% increase of exports in QI of 2007, compared to the same quarter of 2006. In spite of the fact that the Russian embargo still continues, if the Georgian exports lost approximately 100 million USD in 2006, in QI of this year export losses equal to around 20 million USD.

In January-March 2007 the list of main export items is topped by "copper mines and concentrates", followed by "black scrap metals" and "ferroalloys". "Mineral water" and "natural grape wines" remained outside top ten items. The data on main export items in QI of 2007 are shown in quarterly dynamics in Table 3.3.1.

According to QI of 2007 data, Russia lost the first place among the Georgian exports partners (in QI of 2007 Russia accounted for 20% of total Georgian exports) and dropped to the fifth place.

The data on export items by main partner-countries in QI of 2007 are shown in quarterly dynamics in Table 3.3.2.

With regards of Georgian imports, the Russian embargo did not significantly affect the geographic distribution and the commodity structure. For example, the reduced imports of Russian wheat grain were substituted by grain imports from Kazakhstan and the US. The main imports items still remain oil products. However, now the first imports item became oil gases, which is explained by increased price of the Russian natural gas. The data on main imports items in QI of 2007 are shown in quarterly dynamics in Table 3.3.3.

The geographic distribution of imports practically did not change. Russia, as the first country for Georgian imports in the recent years, was moved to the second place by Turkey since QII of 2006, but after increase of the price on natural gas, returned to the top of the Georgian imports list in QI of 2007. In the imports list Russia is followed by Turkey, Ukraine, Germany and Azerbaijan. The data on imports items by main partner-countries in QI of 2007 are shown in quarterly dynamics in Table 3.3.4.

Table 3.3.4 Imports Dynamics by Main Partner-Countries (USD, millions)

	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1
Imports, Total	682.5	887.1	1023.2	1085	1044.5
Of Which:					
Russia	128.2	141.6	140.9	148	168.5
Turkey	77.7	121.2	144.9	178.8	136.2
Ukraine	51.1	71.9	98.4	98.8	92.4
Germany	68.1	92.2	86.3	104.6	86.3
Azerbaijan	50.2	82.9	86	99.3	75.6
United Arab Emirates	21.2	22.4	25.8	39.6	42.4
China	17.4	23.5	29.1	33.3	41.5
Bulgaria	26.8	32.8	33.8	22.1	38.5
United States	27.1	30.1	28.5	44	35.5
Italy	15.1	23.5	33.7	29.9	25.3
Netherlands	13.9	18.2	21	22.6	22.3
Turkmenistan	19.2	27.8	39.6	14.4	21.2
Romania	8.7	9.5	15	7.5	20.5
France	15	17.9	20.2	15.6	20
Kazakhstan	3.6	5.4	3.5	12.9	18.5
Other Countries	139.2	166.3	216.4	213.6	199.8

The foreign trade balance of services remains positive and makes up 40 million USD. In QI of 2007 exports of services equaled 223.2 million USD, or 18% more than in QI of 2006, while imports of services grew by 20% and totaled 183.3 million USD. Large positive balance is manifested in transportation services (19 million USD), tourism (23 million USD), whereas negative balance is registered in insurances services (-18 million USD). In QI of 2007 the number of Georgian citizens going abroad grew by 37.4% and equaled 303.5 thousand persons. The number of people entering Georgia grew at a higher rate (46%), but in absolute numbers it is still lower than the number of Georgian citizens going abroad, making up 294.2 thousand persons. The number of foreigners coming into and going out of Georgia further increased. In QI of 2007 184.9 thousand foreign citizens entered Georgia, which is 54% higher than in the same guarter of 2006, and 182.3 thousand foreigners left Georgia (or 58% more than in QI of 2006). All this underlies the increase in the volume of tourism service exports.

Current transfers and money remittances still remain the decisive factor not only for the balance of payment, but also for the domestic consumer market. In QI of 2007 the volume of money remittances, compared to the same period of the previous year, grew by 61.4%. The largest part of these remittances, 63.4%, is still accounted for Russia. The fastest growth rates in the volume of money remittances were manifested from Kazakhstan (4 times), United States, Belgium, and Spain (more than twice from each). The volume of budgetary grants also increased: in QI of 2006 it equaled 6.6 million USD (for both capital and current grants), while in QI of 2007 it increased to 18.6 million USD. The imports of humanitarian aid also grew from 5.4 million USD in QI of 2006 to 9.9 million USD in QI of 2007. The growth of transfers, manifested in the accounting period, will reduce to a certain extent the current account deficit caused by the trade balance deficit.

In 2006 the volume of foreign direct investments (FDIs) soared to exceed one billion USD. According to preliminary data, significant growth of FDIs is expected in 2007 as well - the overall volume is likely to exceed 1.5 billion USD. The largest part of these investments is expected in the second half of the year, although in QI of 2007 the FDI inflows were already significant. In particular, in January-March of 2007 as a result of privatization 91.5 million USD worth of FDIs were made. The British Petroleum company's investments made up 26 million USD. The FDIs made in the

banking sector equaled 6.5 million USD excluding reinvestment and 14 million USD including reinvestment. FDIs in non-financial corporations made up 154.5 million USD. In total, the overall volume of FDIs totaled 286.4 million USD, which is 96% higher than in the same period of the previous year.

In QI of 2007 no portfolio investments were made. On the contrary, one of the Georgian residents (a Georgian bank) made portfolio investments abroad in the amount of 20.2 million USD. A considerable growth was manifested in other kinds of investments. The net inflows totaled 125.4 million USD, or 3 times more than in the same period of the previous year.

In January-March of 2007 certain changes occurred in the structure of the state debt and debt incurred under the state guarantees. In particular, the Ministry of Finance gave out its own guarantees on the loans for energy sector development, volume of which made up 75.1 million USD. In QI of 2007 a new state loan was received in the amount of 16.75 million USD, and 21.11 million USD was taken from the NBG (loan envisaged under the IMF program), which totaled 37.86 million USD. In the given Quarter, certain loans were repaid, in particular: 11.08 million USD state debt, 1.37 million USD - debt under the state guarantee. At the same time, the NBG repaid the IMF program loan of 11.83 million USD. In addition, the interest payments on the foreign debt in the amount of 4.5 million USD were made. With regards to the total amount of state debt and debt under the state guarantees, taking into account the exchange rate changes, in QI of 2007 it grew by 24.6 million USD.

Figure 3.4.1. Dynamics of Crude Oil Prices (the US Oil Market)



3.4. Production Costs

Dynamics of Oil Prices

If QIV of 2006 showed relative stability of oil prices, in the accounting period they were subject to considerable fluctuations. As of January 18, 2007 the oil prices decreased by 17.3%, compared to December 2006. Thereafter quite a long spell of increasing oil prices set in, during which the oil prices grew from 50.48 USD to 65.87 USD per barrel (except for the short period in the end of March, when prices started to decrease). Overall, compared to the beginning of the quarter, the oil prices grew by 12.9%.

Table 3.4.1 Nominal and Real Growth of the State Budget Revenues in QI of 2007 With Respect to QI of 2006 (Percent)

	Nominal Growth	Real Growth
Total Revenues and Grants	52.0	37.7
Total Revenues	50.0	35.9
Tax Revenues	58.0	43.0
Profit Tax	151.1	127.3
VAT	55.0	40.3
Excise Tax	49.8	35.7
Customs Duty	-67.2	-70.2
Social Tax	45.2	31.5
Non-Tax Revenues	13.8	3.1
Capital Revenues	251.4	218.2
Grants	196.9	169.0

* Real growth is deflated by the average quarterly (CPI) inflation registered in the first three months of 2007

Source: Ministry of Finance

Figure 3.4.2. State Budget Revenues by Types QI, 2007



Source: Ministry of Finance

Taxes

According to the QI of 2007 data, the state budget revenues and grants totaled 1071.7 million Lari, while own revenues - 1042.5 million Lari. The targeted revenues for January-March were thus fulfilled at the level of 118.9% and 119.4% respectively. Tax revenues made up 806.4 million Lari. Compared to the same period of 2006, the nominal growth rate of revenues equaled 58%, whereas the real growth rates (taking into account inflation) - 43%. The forecasted targets were met at the level of 118.2%. The share of tax revenues in the state budget revenues and grants increased from 72.5% in QI of 2006 to 75.3% in QI of 2007.

In QI of 2007 the state budget revenues from all kinds of taxes sharply increased, compared to the same period of 2006, except for the customs duty. Thus income tax increased by 151%, VAT - by 55%, excise tax - by 50%, social tax - by 45%. As a result of strengthening tax administration, the increasing legalization of the economy and the economic growth conditoned essential growth of budgetary revenues. Overall, the forecasted revenue targets for all kinds of taxes were met. With regards non-tax and capital revenues as well as grants, their volumes exceeded both planned levels and levels of the previous year. In QI of 2007, compared to the same guarter of 2006, the share of income tax, capital revenues, and grants in the total revenues structure considerably increased. In return, the shares of the customs duty and non-tax revenues dropped.

Since January 1, 2007 the new Customs Code became effective. The Law "On Customs duty" expired and its provisions were incorporated into the Customs Code in the form of amendments and addenda. At present customs duty rates equal 0%, 5%, and 12%. Almost 90% of goods are subject to 0% customs duty. Seasonal customs duty has been eliminated. The reduction of customs duty rates largely conditioned the fact that in QI of 2007 only 10.4 million Lari was levied in terms of customs duty, which was 3 times less than the amount levied in the same quarter of the previous year.

Improved tax administration and high economic activity is clearly reflected in the drastic growth of revenues mobilized by the tax and customs agencies. In particular, in QI of 2007 the Tax Department mobilized 217.3 million Lari more and the Customs Department - 73.5 million Lari more than in QI of 2006. In total, the Tax Department fulfilled the state



Source: Ministry of Finance

Table 3.4.2 Economically Active Population and Unemployment In Accordance With ILO (International Labor Organization) Strict Criterion

	2002	2003	2004	2005	2006
Population at the Age of 15 and Over (thousand persons)	3240	3105	3151	3162	3251
Economically Active Population (thousand persons)	2104	2051	2041	2024	2022
Labor Force Participation Rate (%)	65.0	66.1	64.8	64.0	62.2
Number of Unemployed (thousand persons)	265	236	258	279	275
Unemployment Rate (%)	12.6	11.5	12.6	13.8	13.6

Source: Ministry of Finance

budget revenue plan at the level of 121.7%, and the Customs Department - at the level of 113.2%.

In QI of 2007 the state budget deficit was planned to be 90.3 million Lari. To cover the deficit 28 million Lari worth long-term investment credits were received in the form of external financing. At the same time, due to higher than forecasted revenues and reduced expenditures, the QI state budget run a surplus (i.e. revenues exceeded expenditures) of 140.7 million Lari. As a result of circulating funds accumulation, the balances on the treasury account increased by 170 million Lari. Due to complete repayment of T-bills, which remained in circulation in 2006, no state budget expenditures on T-bills repayment were incurred in QI of 2007.

In January-March of 2007, funds received in the form of foreign currency by the state budget, largely related to privatization proceeds, were approximately 38 million USD lower than government expenditures in foreign currency. It implies that monetary mass in circulation decreased by the corresponding amount. In addition, the volume of governmental deposits at the NBG significantly increased.

Unemployment

In 2006 the situation on the labor market, compared to 2005, somewhat improved. In particular, the unemployment rate decreased from 13.8% to 13.6%¹. Compared to 2005, the number of employed persons in 2006 slightly increased by 2.7 thousand. It happened through expense of increased number of hired workers, equal to 3.4 thousand. Despite gradual decrease of self-employed, their share in the total employment makes up 65%. The largest part of selfemployed is employed in agriculture. In 2006 the number of employed persons increased in agricultural, construction, transport and communications, financial intermediation, education, culture, recreation, real estate operations and private households sectors. On the contrary, the number of employed in industry, trade, public administration, and healthcare contracted.

In 2006 the decreasing trend of labor force continued, which is conditioned by ageing processes and increased

 $^{^{\}rm 1}$ Calculations are made in accordance with the ILO (International Labor Organization) strict criterium.

Table 3.4.3

Real Value Added Per Employed and Average Monthly Wages in QIV of 2006 Compared to QIV of 2005

	Real Value-Added (%)	Nominal Wages (%)
Agriculture	99.1	126.8
Industry	94.0	122.2
Construction	113.7	119.7
Trade	80.5	126.2
Hotels and Restaurants	139.9	108.2
Transport and Communications	182.4	108.1
Financial Intermediation	110.4	218.2
Public Administration, Defense	14.1	135.2
Education	241.9	121.0
Healthcare	150.0	156.5
Total	129.0	123.0

Source: Department of Statistics

Figure 3.5.1. Annual Growth Rates of Value Added in Agricultural Sector



number of retired people leaving out the labor force. As a result, the labor force participation coefficient was reduced to 62.2% in 2006. However, this rate is still higher than that in developed countries, which indicates the fact, that many Georgian citizens due to economic difficulties are forced to actively seek employment.

Labor Productivity, Wages

In 2006 high growth rates of wages was registered. In QIV of 2006, compared to QIV of 2005, the average nominal wages increased by 23%. The real growth rate of salaries in the same period equaled 13.4%. In QIV of 2006 the average monthly wages (after tax) equaled 203.8 Lari¹. The wages increased almost in every sphere, both in private and public sectors.

In QIV of 2006, compared to the same quarter of 2005, real growth rate of value-added per employed increased by 29.9%. Labor productivity posted considerable growth rates in most sectors of the economy, although it decreased in industry, trade, public administration, and, slightly, in agriculture.

In QIV of 2006 the annual growth rate of average wages fell behind the real growth of value-added per employed. However, exclusion of such non-market sector as public administration will further increase this difference, which in turn represents an inflationhindering factor.

3.5. Production and Demand

Production

Despite significant negative external shocks, the Georgian economy maintained high growth rates in 2006. The annual growth rate of the real GDP made up 9.4%. The quarterly rates (against the average-2005) made up 8.5%, 7.9%, 9.6%, and 11.5% respectively.

Along with the rise of energy prices and unfavorable climatic conditions for agriculture, the 2006 Russian embargo represented the main factor impeding

¹ Calculations are made from household survey data.

Table 3.5.1 The Georgian GDP by Sectors

	2005				2006		
	GDP Share (%)	Growth (%)	Impact on GDP Change (perc. points)	GDP Share (%)	Growth (%)	Impact on GDP Change (perc. points)	
Agriculture, Forestry, Fishing	14.8	12.0	2.0	11.3	-9.3	-1.4	
Mining and Quarrying	0.8	-7.8	-0.1	1.0	18.9	0.1	
Manufacturing	8.6	14.1	1.2	8.6	22.4	1.9	
Electricity, Gas and Water Supply	2.8	5.1	0.2	2.7	14.2	0.4	
Processing Products by Households	3.5	12.4	0.5	2.5	2.2	0.1	
Construction	8.1	14.1	1.1	6.8	9.9	0.8	
Trade services, Repair Services	12.0	9.4	1.2	13.6	19.7	2.4	
Restaurant and Hotel Services	2.8	17.1	0.5	2.2	11.7	0.3	
Transport and Storage	8.4	3.9	0.4	8.0	15.1	1.3	
Communications	4.0	28.7	1.1	3.5	11.9	0.5	
Financial Intermediation	2.0	52.8	0.7	2.3	40.4	0.8	
Real Estate, Renting and Business Activities	2.6	10.6	0.3	3.2	13.1	0.3	
Imputed Rent of Own Occupied Dwellings	2.7	0.9	0.0	2.4	-1.3	0.0	
Public administration and defense	6.5	-6.3	-0.4	8.6	-1.1	-0.1	
Education	3.3	13.8	0.5	3.6	7.0	0.2	
Health Care and Social Services	3.5	7.6	0.3	4.3	13.4	0.5	
Other Community, Social and Personal Services	3.2	18.3	0.5	3.4	12.0	0.4	
Private households with employed persons	0.1	28.2	0.0	0.1	10.2	0.0	
FISIM adjustment	-1.1	57.5	-0.4	-0.9	-6.3	0.1	
Gross Domestic Product at basic prices	88.5	10.4	9.5	87.4	9.5	8.4	
Taxes on products	12.0	1.2	0.1	13.1	6.8	0.8	
Subsidies on products	-0.5	0.5	0.0	-0.4	-10.9	0.1	
GDP at Market Prices	100.0	9.6	9.6	100.0	9.4	9.4	

Source: Calculations are based on the Department of Statistics data.

Figure 3.5.2. Share of Sectoral Value Added in the GDP



economic growth. Despite such negative background, the nominal GDP grew from 3255.4 million Lari in QIV of 2005 to 3970.0 million Lari in QIV of 2006, posting a 22.0% increase.

The sectoral analysis of the economic growth shows that in QIV of 2006 positive growth rates were manifested almost in every sector of the economy. The sectors "production and supply of electricity, natural gas, and water" (35.1% growth - although largely due to the seasonality factors) and "financial intermediation" (24.8% growth) should be particularly pointed out. Quarterly growth rates in the range of 20% were posted in construction, trade, hotels and restaurants, communications sectors.

Overall, in 2006 the highest growth rates were achieved in financial intermediation (40.4%) and manufacturing industry (22.4).

As a result of unfavorable climatic conditions, the real value added in agriculture decreased by 9.3% compared to 2005, which was clearly reflected in the deficit of agricultural products and corresponding price increase. Price increase of agricultural products is particularly evident and thus creates exaggerated perception with respect to the actual level of inflation.

Traditionally, the growth and contraction years in the agricultural sector are alternating. Based on this regularity, the agricultural sector is expected to post a considerable growth in 2007.

Households Consumption

In QIV of 2006, compared to QIV of 2005, the households consumption increased by 38.7% in nominal terms. Overall, in 2006, compared to the previous year, the growth rate made up 31.9%. However, it should be pointed out that due to statistical errors in GDP calculations by production and expenditures methods, it is difficult to speak about precise values.

Government Expenditures

In spite of that fact that by QIV of 2006 data, the government spending increased by 60.5% compared to the same quarter of 2005, the annual data show 12.2% increase in nominal terms. The main part of

Figure 3.5.3





Figure 3.5.4 Quarterly GDP Growth Rates With Respect to the Average Value of the Previous Year



Figure 3.5.5

Real GDP Growth

Uses of Imported and Domestic Production (GDP, %)



government expenditures directly affects the domestic market. However, it should be pointed out that a certain part of expenditures is spent on imported goods after currency conversion. In QIV of 2006 the NBG, on the governmental request, effected 83 million USD worth currency conversion operations. The total volume of the NBG currency conversion operations for the GoG in 2006 totaled 234 million USD, or 67% more than in 2005. Currency conversions made up one-fifth of total government spending.

Investments

In QIV of 2006 the total capital formation totaled 1079.8 million Lari, which is 15.7% more than in QIV of 2005. During 2006 this parameter made up 3853 million Lari. In nominal terms it represented a 16% increase, which nonetheless fell behind the GDP nominal growth rate (19%). Despite this, the share of total investments in the GDP did not change significantly and equaled 28.0% (28.6% in 2005). The investments structure changed significantly. FDIs accounted for 47% of total investments (compared to 25% in 2005). Drastic increase of FDIs in the country was conditioned by improved business environment and successful privatization process.

In 2006, the volume of FDIs in absolute terms totaled 1026 million USD, or 128% more than in the previous year. The main FDI inflows came from the UK (17.7%), Kazakhstan (14.8%), and Turkey (12.4%). The US share in total FDIs equaled 6%, and the Russian share - 2.7%.

Drastic rise of FDIs represented one of the factors that caused high demand for the national currency and Lari appreciation. In addition, investment inflows allowed maintaining high growth rates of households consumption, which promoted the GDP growth.

Inflation Forecasts

Table 4.1

Annual Price Increase on Products with Regulated Prices and Impact on Annual Inflation QL 2007

	Average Price Changes in Georgia	Inflation Impact
Drinking Water Fee	66.0%	0.3%
Garbage Collection Fee	123.0%	0.3%
Electricity Fee	59.0%	1.7%
Natural Gas Fee	32.0%	0.5%

Figure 4.1 Inflation Forecast 2005-2007



Expected Impact of Exogenous Factors

It is a well-known fact that the 2006 inflation was affected by a series of negative exogenous factors: increased price on the Russian natural gas and corresponding increased electricity fee, the Russian embargo, world prices on sugar and oil, unfavorable climatic conditions, avian flu. The impact of some of those is still reflected in the annual inflation, but most of these reasons will cease to exert negative influence on inflation in the coming months. Moreover, it is likely that better climatic conditions compared to the previous year will exert a positive exogenous shock and affect prices in terms of lowering them.

In return, the increased inflation in the coming month will be largely affected by increased prices on products with regulated prices. Increased fees on garbage collection, drinking water, electricity as well as increased price on imported natural gas resulted in 2.8 percentage point increase of annual inflation, as of March 2006. In the coming months the direct effect of increased price on natural gas is expected to be an increase of the annual inflation by another percentage point. A similar effect will have increased fees on public transport.

Inflation Model

In the light of probable growth of the GDP and monetary mass, market expectations of oil prices (66 USD/barrel), better agricultural crops compared to the previous year, slight increases of imports inflation, and higher prices on natural gas, under the same monetary policy and without additional exogenous factors, the expected inflation is presented on Figure 4.1.

According to the forecasts, the inflation rate in December 2007 is expected at 20% probability level to be within the range of 4.53-9.44%.

Box 1. Georgian Macroeconomic Model

The function of a central bank as an organizational unit consists in governing the monetary policy in order to ensure price stability. In the process of formulating its policies it is assisted by one or several departments – usually it is a research department, tasks of which are to analyze the existing situation in the real and financial sectors of the economy. Apart from such analysis, the research department presents its own forecasts and attitudes with respect to the results of the monetary policy. Such forecasts can be based on different assumptions, in order for the unit elaborating monetary policy to be able to evaluate possible results of its different decisions.

It is obvious that economists are unable to predict future with absolute certainty, but they use different types of economic modeling in order to use the available information most efficiently. Central banks of developed countries have been using economic models since 1960s - it was exactly in this period that first powerful macrocomputers were created, which could process multivariate economic models in relatively short time and provide forecasted parameters.

Creation of macroeconomic models for transition countries seems to represent particular difficulties. This is explained by a number of reasons. First, it should be pointed out that transition economies are subject to high volatility, which is related to such important processes as privatization, economic liberalization, significant capital in- and outflows. At the same time, transition economies have data problems, in particular, short time series, low data quality, and often lack of economic data, which is necessary for a certain economic model but which was not collected due to different reasons. And finally, another problem encountered by the economists who make economic modeling of transition economies is a short-term character of the transition period itself. The model, which might produce satisfactory forecasts in the transition period, might become significantly imprecise when the country moves to a more stable stage of its development. Robust trends, which are peculiar to the transition period, are valid in the short-run and vanish in the following periods.

The NBG with the assistance of the Bank of Netherlands is working on the Georgian macroeconomic model. In the process of designing such a program, all the above-mentioned problems are taken into account. The model pays particular attention to economic sense and intuition of the obtained results.

Taking into consideration data availability, the working period of the model was set to be 1997-2006. The model consists of 34 equations, of which 25 represent identities well known from economic theory, while the remaining 9 are behavioral equations based on certain econometric regressions.

In order to obtain these equations, the so-called errors correction method was used, according to which among the variables of the equation there exists a certain robust relation, which represents steady state equilibrium. At the same time, there are short-run deviations from this steady state, which may be a result of past behavior of these variables or the influence of certain exogenous factors.

For the purpose of deriving behavioral equations, regressions have been run for the following variables:

- consumption
- investments
- exports
- imports
- demand for labor
- consumer price index
- wages
- money demand (M2 aggregate)
- Lari exchange rate against the US dollar

All equations of the model, together with the relevant database, are loaded into a special computer program WinSolve, where data processing takes place for simulation and forecasting purposes.

Currently the elaboration of the model is in the completion phase. On the basis of further consultations with the Dutch expert, the model will be calibrated, tested and the first results will be obtained. Thereafter, the model will be finalized and, along with periodic modifications, the NBG will have in hand another important instrument for formulating monetary policies.

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