INFLATION REPORT

Central Bank in Georgia was first established in 1919

2010

NATIONAL BANK OF GEORGIA

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INFLATION REPORT
Q3 2010

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1. INTRODUCTION

According to the National Statistics Office (NSO) of Georgia, the annual inflation in September 2010 equaled 9.8%. The annual core inflation also increased, posting an 8.2% growth for the products within two and one standard deviations. The main impact on inflation was due to food prices. Wheat price gains conditioned price increases for milk, cheese and eggs. The price increases for vegetables and watermelons due to seasonality should be also pointed out.

The annual inflation rate in September equals 6.8% for domestic goods and 8.5% for imported goods. As a result of price gains in the international markets the annual inflation on tradable goods amounted to 14.6%. Price changes in the international markets represent an exogenous factor beyond the area of influence of the NBG's monetary policy. Slowdown in inflation rate in Georgia is expected in line with stabilization of food prices in the world markets.

The dynamics of main inflation factors can be shortly described as follows: against the backdrop of economic recovery the labor productivity grew positive after a 2-year pause, In Q2 2010 the growth rate of value-added per employee equaled 6.7%, while the average wages of hired employees amounted to GEL 598.9. In Q2 2010 the growth rate of unit labor cost significantly declined, representing an important determinant of slowing down inflation.

In Q3 2010 the reserve money grew 2.1%, amounting to GEL 1,695.5 million. The annual growth of reserve money equaled 1.3%. In the accounting period the cash in circulation increased by GEL 40.3 million, totaling GEL 1,500.7 million. In the same period the M2 broad money expanded 4.7%, while the M3 grew by GEL 765.8 million. At end-September the respective amounts of broad money aggregates equaled GEL 2,458.2 million and GEL 5,808.2 million.

In Q3 2010 the NBG continued using the monetary instruments with the purpose of managing liquidity of the banking sector and stimulating the latter. In May 2010 along with an increase of reserve requirements to 10%, the volume of funds placed on commercial banks' corresponding accounts practically equaled the minimum average level of required balances. In Q2 2010 the total placement of NBG's CDs amounted to GEL 214.6 million with the weighted average interest of 9.4%. In the same period the weighted average interest rate on the NBG's refinancing loans was 6.57%, with the volume of extended refinancing loans totaling GEL 2,755.5 million.

In the accounting period the volume of deposits in the banking sector grew 19.3%, amounting to GEL 4,501.5 million. The deposits in domestic currency rose 6.9%. The growth is mainly attributed to term deposits of legal entities. The volume of foreign currency denominated deposits increased 24.3% in the accounting period; excluding the exchange rate effect and considering the foreign currency deposits in US dollar terms, the growth rate amounted to 26.8%. In the same period the deposit dollarization ratio moved up by 3 pps, settling at 74.4% at end-September. In Q3 2010 the volume of loans extended by commercial banks increased by GEL 108.1 million, standing at GEL 5,916.2 million. The growth rate of loans in domestic currency equaled 5.2%, while the foreign currency denominated loans increased 2.8%. In the accounting period the weighted average interest rate on deposits in domestic currency increased by 0.5 pps to equal 10.0%, while the weighted average interest

on foreign currency deposits declined by 0.4 pps to 7.6%. The weighted average interest on loans fell by 0.4 pps to 18.9%.

In the accounting period the lari's real effective exchange rate appreciated 2%, while the nominal effective exchange rate depreciated 2.9%. Decrease in foreign investments and widening of trade deficit in the accounting period was mainly balanced by tourism revenues.

The economic growth resumed at the end of 2009 considerably accelerated in 2010. The real GDP growth in Q2 2010 equaled 8.4%, while the nominal GDP expanded 16.7%. In Q3 2010 the GDP growth is forecasted to equal 7.7%. Recent estimates of 2010 economic growth were revised upwards to 6.3%.

The NBG's forecast of the annual inflation stands at 10.6% by end-year, subsequently declining to 9.8% in Q1 2011.

2. CHANGE IN CONSUMER PRICES

Diagram 2.1
Impact on Food Price Changes on Inflation

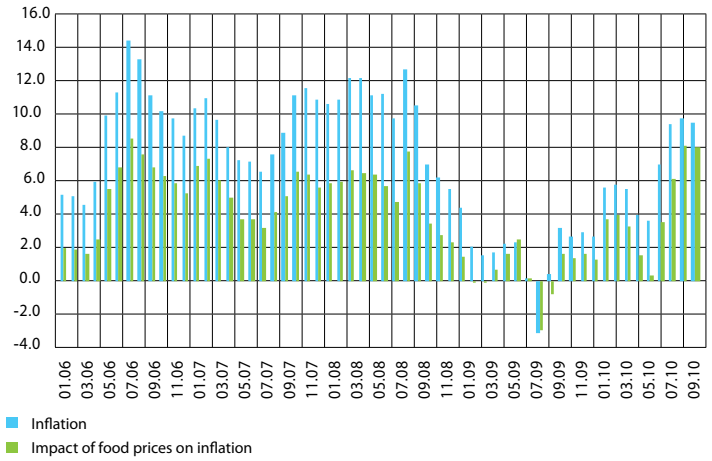


Diagram 2.2
Annual Inflation Changes for Goods with Different Consumption Durability

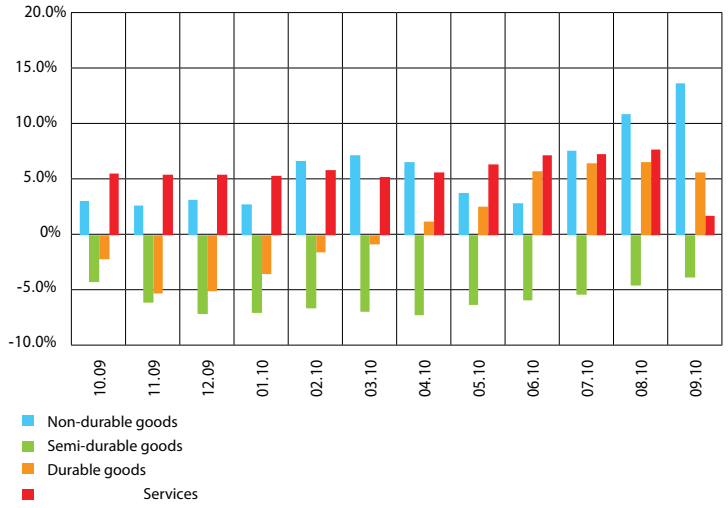
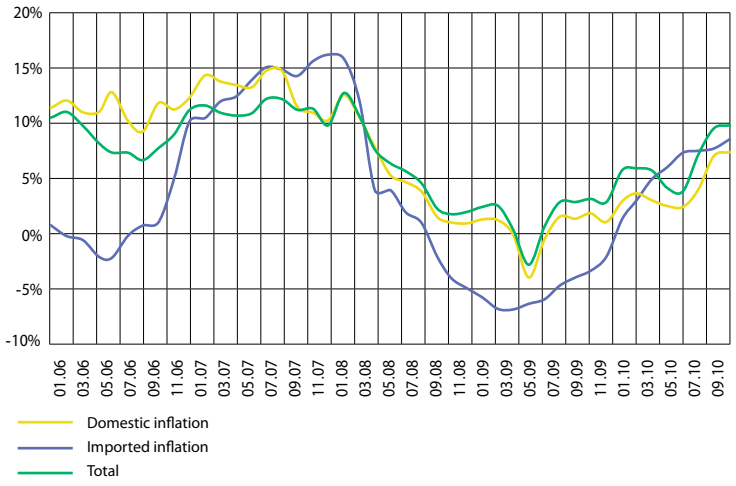


Diagram 2.3
Annual Inflation Rates by Production Location



According to the National Statistics Office (NSO) of Georgia, the level of consumer prices in Q3 2010 increased 5.2% quarter-on-quarter. In 2009 the same indicator stood at -0.6%. As a result, by end-Q3, 2010 the annual inflation grew from 3.7% in Q2 to 9.8% in Q3.

The main reason of increase in inflation in Q3 was related to food price gains. In particular, drought and fires conditioned bad wheat harvest pushing prices up. This immediately affected prices on bread and bakery products. Wheat price gains significantly affected substitute goods. Taking into account that wheat is used for feeding domestic animals, sharp price hikes for wheat led to price increases for milk, cheese and eggs. Prices on oils and fats posted quarterly increases as well. In addition, seasonal factors significantly affected the Q3 inflation level as well. In particular, prices on vegetables and watermelons jumped. Similar to these products, prices grew for almost all food categories, albeit at a relatively slow pace. On the contrary, there were also price decreases in "communication", "healthcare" and "education".

Overall, the consumer prices grew 5.2% in Q3. As it was mentioned, the increase in inflation was mainly related to food price gains. In the accounting period food prices in the international markets were on the uptrend, spreading to the Georgian consumer market. International food prices represent an exogenous factor beyond the area of influence of the NBG. Slowdown in inflation rate in Georgia is expected in line with stabilization of food prices in the world markets.

In Q3 core inflation indicators point to an uptrend in prices. Namely, the core inflation for the products within two and one standard deviations grew 8.2% each.

As it was already mentioned, In Q3 2010 the con-

sumer prices grew 9.8% year-on-year. A 19.8% price growth was registered for food prices. Alcoholic beverages and tobacco products posted a 10.2% price increase. The prices for "other goods and services" and "hotels, cafes and restaurants" moved up 7.7% and 7.6%, respectively. Price drops were posted for "communication" (7.0%), "clothing and footwear" (6.0%) and "recreation and culture" (0.2%).

The annual inflation for imported goods amounted to 8.5% in Q3. This indicator has been on the uptrend in the recent months due to a price growth tendencies in the international markets. The domestic inflation equaled 6.8%. It is also interesting to observe the dynamics of tradable[2] and non-tradable goods. In the accounting period the prices for non-tradables and tradables increased, respectively, 4.5% and 14.8% in annual terms. Such an upswing for tradable goods is also conditioned by the price gains in the international markets.

The annual inflation rates for goods with different consumption durability posted a 3.3% increase for non-durables and practically no change for semi-durable and durable goods. Prices on services dropped 0.2%.

Diagram 2.4
Inflation of Tradable and Non-Tradable Goods

Diagram 2.5
Annual CPI and Core Inflation (for 266 Components of the 2009 Consumer Basket)[1]

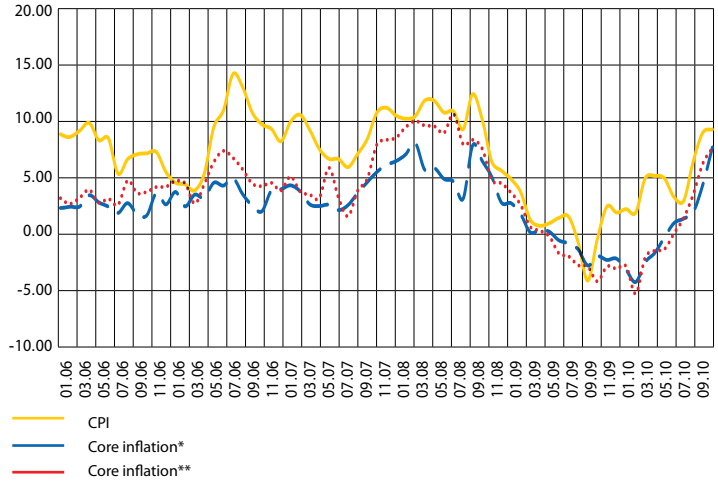
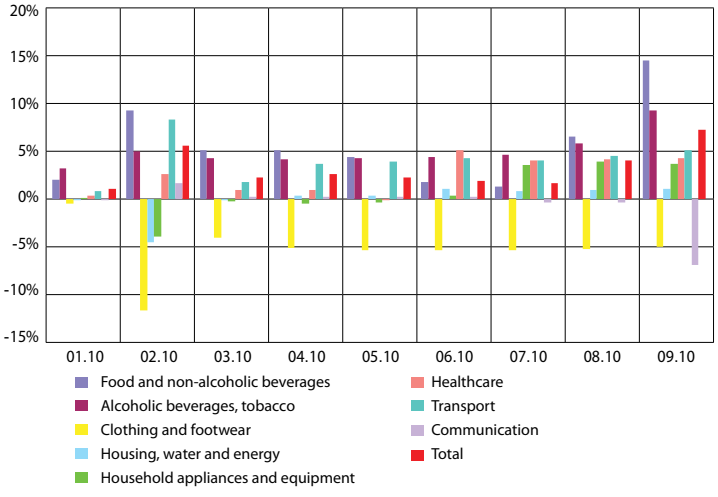


Diagram 2.6
Price Increases Relative to December 2009



1 * For products within one standard deviation
** For products within two standard deviations.
2 Goods and services which can be sold away from production location.

Table 2.1
CPI Inflation by Components (%), Consumption Basket Weights (%) and Individual Impacts on Inflation (pps).

	Decem-ber 2009 weights	Sep10/Jun10		Sep10/Sep09		Oct09Sep10/Oct-08Sep09	
		Inflation	Impact	Inflation	Impact	Inflation	Impact
Total	100.0%	5.2%	5.2%	9.8%	9.8%	5.2%	5.2%
Food and nonalcoholic beverages	41.7%	12.6%	5.2%	19.8%	8.1%	7.2%	3.0%
Food	40.5%	12.9%	5.2%	20.1%	7.9%	7.3%	3.0%
Bread and bakeries	11.7%	14.7%	1.7%	17.5%	2.1%	0.2%	0.0%
Meat and meat products	6.8%	2.4%	0.2%	6.1%	0.4%	1.1%	0.1%
Fish	1.3%	4.9%	0.1%	13.6%	0.2%	-6.2%	-0.1%
Milk, cheese and eggs	4.8%	29.5%	1.1%	17.3%	0.8%	1.0%	0.0%
Oil and fat	3.5%	20.7%	0.8%	28.9%	1.0%	-4.1%	-0.2%
Fruits, grapes	1.8%	5.6%	0.1%	40.8%	0.6%	30.2%	0.5%
Vegetables, melons, including potatoes and other bulbous	7.8%	14.3%	1.1%	25.3%	1.9%	11.6%	0.9%
Sugar, jam, honey, syrups, chokolate, confectionery	2.3%	3.0%	0.1%	12.4%	0.3%	29.2%	0.6%
Other food	0.4%	2.4%	0.0%	5.6%	0.0%	2.3%	0.0%
Nonalcoholic beverages	1.3%	2.2%	0.0%	7.8%	0.1%	2.6%	0.0%
Alcoholic beverages and tobacco	2.9%	4.7%	0.1%	10.2%	0.3%	4.7%	0.1%
Clothing and footwear	4.4%	0.4%	0.0%	-6.0%	-0.3%	-8.5%	-0.4%
Housing, water, electricity, gas and other fuels	13.8%	0.1%	0.0%	2.4%	0.3%	-1.6%	-0.2%
Furnishing, householdequipment and routine	3.5%	3.3%	0.1%	2.9%	0.1%	-1.6%	-0.1%
Health	8.8%	-0.8%	-0.1%	4.0%	0.4%	2.6%	0.2%
Transportation	9.9%	0.8%	0.1%	6.0%	0.6%	8.5%	0.8%
Communications	4.0%	-7.2%	-0.3%	-7.0%	-0.3%	0.0%	0.0%
Recreation and culture	2.2%	0.6%	0.0%	-0.2%	0.0%	0.1%	0.0%
Education	4.9%	-0.4%	0.0%	4.9%	0.2%	43.6%	1.6%
Hotels, restaurants and cafes	1.6%	5.5%	0.1%	7.6%	0.1%	3.5%	0.1%
Miscellaneous goods and services	2.3%	5.3%	0.1%	7.7%	0.2%	1.9%	0.0%
Non-durable goods	67.9%	8.0%	5.5%	14.1%	9.5%	6.0%	4.1%
Semi-durable goods	5.8%	0.3%	0.0%	-4.0%	-0.2%	-6.1%	-0.4%
Durables goods	3.4%	0.5%	0.0%	5.8%	0.2%	0.7%	0.0%
Services	22.8%	-0.6%	-0.1%	1.8%	0.4%	5.9%	1.3%

3. INFLATION FACTORS

3.1 LABOR MARKET

In Q2 2010 the economic recovery in the labor market initiated in the beginning of 2010 continued. Similar to the preceding quarter, labor productivity in the country's economy grew positive after a two-year downturn. In addition, the annual growth rate of average wages for hired employees slightly increased quarter-on-quarter. As a result, in the accounting period the downtrend in the growth rates of unit labor cost was maintained.

In Q2 2010 the annual growth rate of real value-added per employee equaled 6.7%. Significant growth was registered in "real estate, renting and business activities", "construction", and "transport and communication" sectors (43.5%, 27.3%, and 17.9%, respectively). Relatively lower growth was posted in "trade" (15.7%), and "industry" (13.2%). Despite the overall uptrend in the real value-added, a decrease in value-added was manifested in a few sectors, including "public administration, defense" (18.6%), "hotels and restaurants" (11.4%), "financial intermediation" (8.2%), "healthcare" (7.1%), "education" (6.8%) and "agriculture" (1.6%).

In Q2 2010 the average wages of hired employees in the official economy equaled GEL 598.9[3], or 6.9% more year-on-year. Almost all economic sectors posted an increase in average wages of hired employees. The sectoral analysis showed that particularly high annual growth rates were registered in "fishing, fishery" and "mining and quarrying" sectors, where average wages of hired employees grew 47.0% and 24.1%, respectively. Also high growth was manifested in "manufacturing" and "hotels and restaurants" (17.0% and 12.6%, respectively). An uptrend in wages is maintained in the sectors which are largely financed from the state budget: "healthcare and social work services"

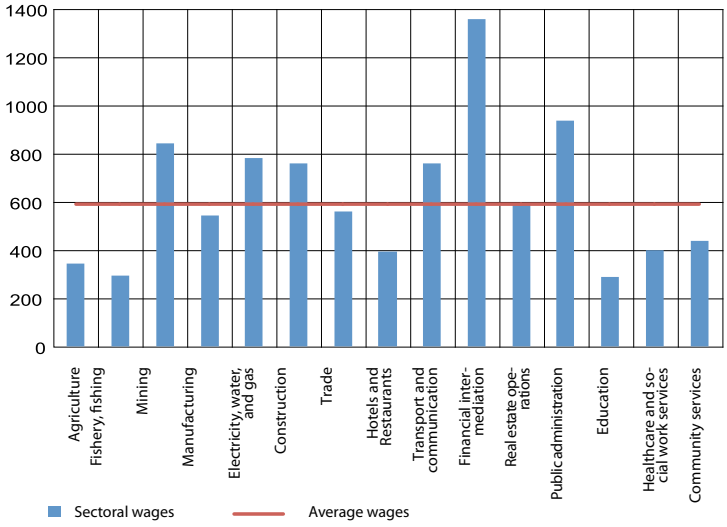
Table 3.1
Growth of Real Value-Added per Employee in Q2 2010, year-on-year (percent)

	Real Value-Added
Agriculture	198.4
Industry	113.2
Construction	127.3
Trade	115.7
Hotels and Restaurants	88.6
Transport, Communication	117.9
Financial Intermediation	91.8
Real Estate, Renting and Business Activities	143.5
Public Administration, Defense	81.4
Education	93.2
Health	92.9
Total	**106.7**

Table 3.2
Average Wages of Hired Employees in Q2 2010 (relative to Q2 2009, percent).

	Nominal Wages
Agriculture, hunting and forestry	99.0
Fishing, fishery	147.0
Mining and quarrying	124.1
Manufacturing	117.0
Production and distribution of electricity, gas, and water	107.1
Construction	106.7
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	106.9
Hotels and restaurants	112.6
Transport and communication	104.1
Financial intermediation	103.6
Real estate, renting and business activities	94.4
Public administration	109.2
Education	112.3
Healthcare and social work services	116.4
Other community, social and personal service activities	116.1
Total	**106.9**

Diagram 3.1
Sectoral Average Wages of Hired Employees, Q2 2010 (GEL)



3 Source: NSO, Enterprise and Labor surveys.

Diagram 3.2
Real Value-Added per Employee, Average Monthly Wages of Employees and Unit Labor Cost (Annual percentage change)

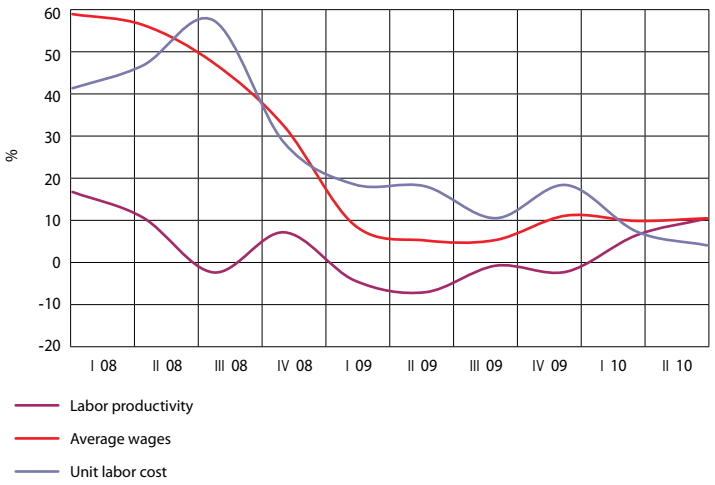


Diagram 3.3
Changes in Reserve Money

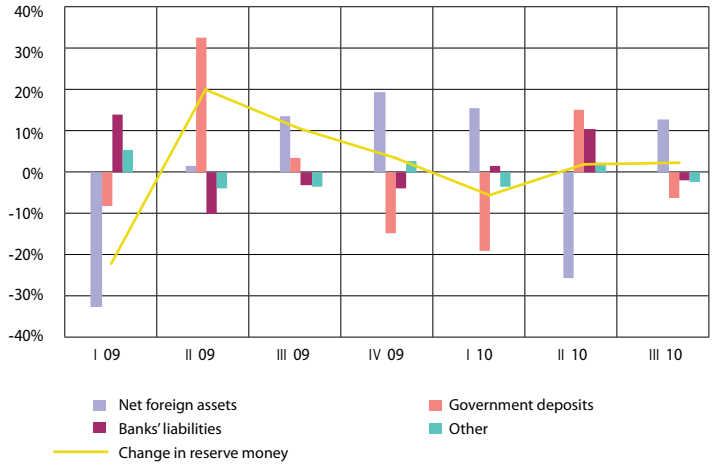


Table 3.3
Dynamics of Reserve Money December 2009 – September 2010, end-period data (GEL thousands).

	Dec-09	Mar-10	Jun-10	Sep-10
Reserve money	1,743,917	1,633,407	1,660,685	1,695,510
Cash in circulation	1,457,938	1,398,806	1,460,407	1,500,695
Banking deposits	285,979	234,601	200,278	194,815
Balances on corresponding accounts	285,979	234,601	126,538	149,685
Overnight deposits			73,740	45,130

Table 3.4
Dynamics of Reserve Money December 2009 – September 2010, end-period data (GEL thousands).

	Dec-09	Mar-10	Jun-10	Sep-10
Reserve money	1,687,663	1,677,721	1,633,634	1,729,024
Cash in circulation	1,347,936	1,360,994	1,436,513	1,525,337
Banking deposits	339,727	316,727	197,121	203,687
Balances on corresponding accounts	339,727	317,792	136,218	150,875
Overnight deposits			60,903	52,812

and "other community, social, and personal services" showed an increase in average wages of 16.4% and 16.1%, respectively; the "education" sector posted a relatively lower wage growth, 12.3%. Apart from these sectors wage growth was also registered in the following sectors: "public administration" (9.2%), "production and distribution of electricity, gas, and water" (7.1%), "trade" (6.9%) and "construction" (6.7%). In Q2 2010 there were two sectors which posted decreases in average nominal wages of hired employees – "real estate operations" (-5.6%) and "agriculture" (-1.0%).

In Q2 2010 significant differences in sectoral average wage levels were maintained. The highest average wages were still in "financial intermediation" (GEL 1,378.7) and "public administration" (GEL 952.2), exceeding the overall average 2.3 times and 1.6 times, respectively. The lowest average salaries were in "education" (GEL 296.8) and "fishing" (GEL 301.6), constituting, respectively, 49.6% and 50.4% of the overall average level. It should also be noted that the range between the highest and lowest wages in the accounting quarter grew 1.4% year-on-year and 6.2% quarter-on-quarter.

Thus, in annual terms the growth rate of average wages significantly fell behind that of labor productivity (in the accounting period these growth rates increased by 0.6 pps and 4.2 pps, respectively). This resulted in an essential reduction in unit labor cost growth rate, which in turn represents an important factor for inflation decrease.

3.2 MONETARY AGGREGATES

As of Q3 2010, the reserve money aggregate grew by GEL 34.8 million (2.21%), amounting to GEL 1,695.5 million at the end of the accounting period. In average terms, the monetary base contracted 5.8% (by GEL 95.4 million) quarter-on-quarter and grew 1.3% year-on-year.

In the accounting period the NBG purchased USD

31.0 million through FX auctions. The net FX purchases of the NBG through intragovernmental currency conversions equaled USD 119.3 million. As a result of these operations, the net foreign assets rose by approximately USD 150.0 million.

In Q3 the funds on government deposits expanded by GEL 109.3 million, amounting to GEL 790.4 million as of end-September.

In the accounting period the NBG continued issuance of Certificates of Deposit with the purpose of improving commercial banks' liquidity management. The nominal placement of CDs totaled GEL 214.6 million, while the redemption value of CDs was GEL 211.2 million. The volume of CDs in circulation grew from GEL 191.2 million at end-June 2010 to GEL 191.2 million at end-September 2010. In the same period commercial banks actively used refinancing loans – at end-September the stock of refinancing loans equaled GEL 170.0 million. In the same period commercial banks registered 364 overnight swaps, with the redemption value totaling GEL 30.0 million.

As a result of these operations, in Q3 2010 the banks' net liabilities contracted by GEL 34.2 million, equaling GEL -7.3 million.

The above-mentioned movement of funds led to a GEL 34.8 million increase in reserve money in the accounting period. The commercial banks' balances on the corresponding accounts at the NBG grew by GEL 23.1 million, amounting to GEL 149.7 million, whereas the commercial banks' balances on overnight deposits contracted by GEL 28.6 million. In the same period, the cash in circulation increased by GEL 40.3 million, totaling GEL 1,500.7 million.

BROAD MONEY

In Q3 2010 the M3 broad money aggregates expanded by GEL 765.8 million, amounting to GEL 5,808.2 million. In the accounting period the foreign currency denominated deposits grew by GEL 654.4 million (24.3%), totaling GEL 3,349.8 million by end-September. It should be noted that in the accounting period the Georgian Railway sold eurobonds at the London Stock Exchange in the amount of circa USD 250 million and placed the funds on the bank deposits. The funds are destined for modernizing the railway infrastructure and spending will be effected gradually. The deposits in domestic currency increased by GEL 74.1 million (6.9%), standing at GEL 1,151.7 million by end-period.

The M2 broad money grew 4.7% (by GEL 111.3 million) in the accounting period, fueled by a growth of lari deposits and a GEL 40.3 million increase in cash in circulation.

The annual growth rate of M3 equaled 41.9% (and 31.5%, excluding the Georgian Railway deposits), whi-

Table 3.5
Change in Monetary Aggregates, December 2009 – September 2010, end-period data (Lari, thousands)

	Dec-09	Mar-09	June-10	Sep-10
M3 Broad Money	4,602,749	4,736,237	5,042,418	5,808,209
M2	2,132,621	2,214,757	2,347,108	2,458,450
Money outside banks	1,229,436	1,186,814	1,269,456	1,306,717
Lari in circulation	1,457,938	1,398,806	1,460,407	1,500,695
Deposits in domestic currency	903,185	1,027,943	1,077,651	1,151,733
Deposits in foreign currency	2,470,128	2,521,480	2,695,311	3,349,759

Diagram 3.4
Lari Liquidity

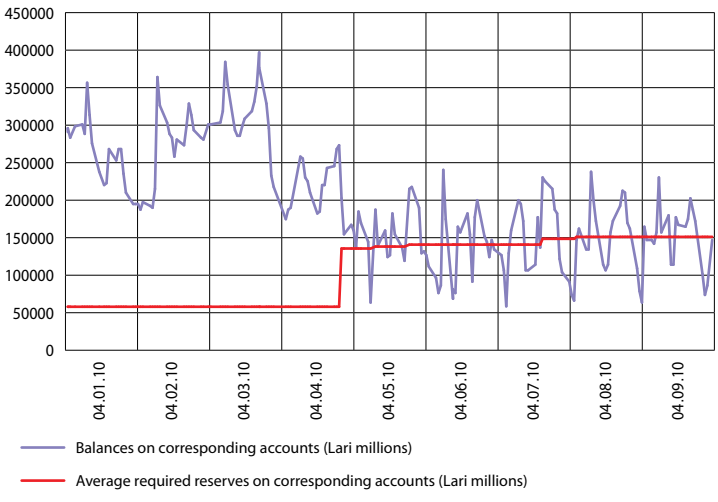


Diagram 3.5
Dynamics of Liquid Assets, Liabilities, Liquidity Ratio and Liquidity Requirements

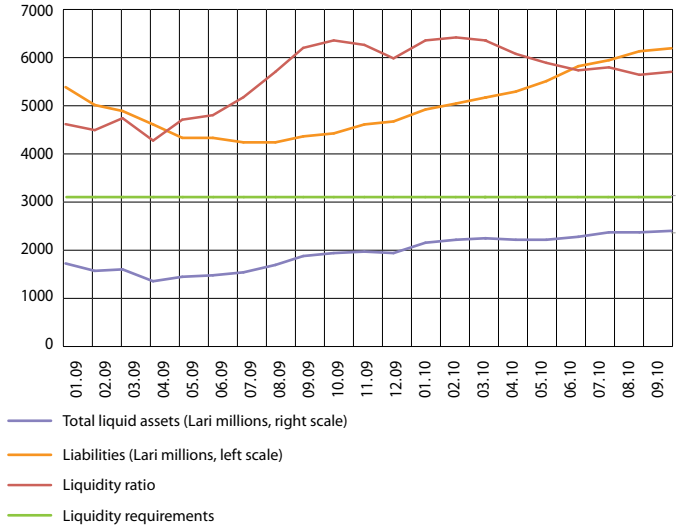


Diagram 3.6
Dynamics of CD Auctions

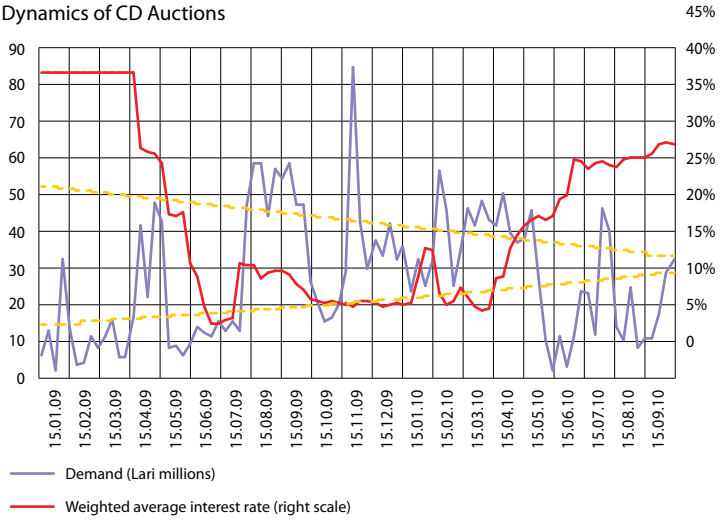
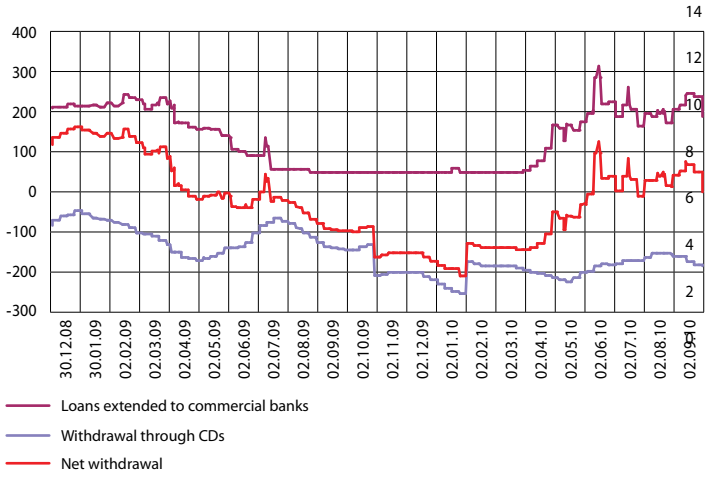


Diagram 3.7
Liquidity Withdrawal through CDs, Loan Extension to Commercial Banks and Net Liquidity Withdrawal



le M2 expanded 28.5%.

3.3 MONETARY INSTRUMENTS

The NBG's monetary policy in Q1 2010 was still aimed at supporting commercial banks' liquidity management and revitalizing the banking sector.

In the accounting period after increasing the reserve requirements to 10%, the commercial banks' balances on the NBG's corresponding accounts did not differ much from the minimum reserve requirements; unlike in Q1, this difference almost equaled to zero. The highest excess liquidity level stood at GEL 87.6 million on August 11, while the largest liquidity deficit equaled GEL 87.3 million on September 1. Such fluctuations of the corresponding account balances indicate a pronounced tendency of reducing excess liquidity.

Accordingly, in the accounting period the liquidity ratio declined in average terms by 1.3 pps quarter-on-quarter to equal 37.4%, the lowest level since August 2009.

For liquidity management purposes the NBG continued to use 3-month CDs. The maximum interest rate set on the CDs in the accounting period oscillated between 8.83% and 10.0%. Overall, in Q1 2010 the placement value of CDs equaled GEL 214.6 million, up 12.3% quarter-on-quarter.

In Q3 2010 the weighted average interest grew considerably to 9.4% (in Q1 2010 it stood at 6.23%). The interest rate increase was caused by the policy rate hike and reduction in excess liquidity.

Through refinancing loan auctions resumed since Q2 the total volume of extended 7-day loans almost doubled quarter-on-quarter, equaling GEL 2,755.5 million. The weighted average interest rate increased from 5.25% to 6.57%.

On average, the ratio of net liquidity supply to reserve money grew again to equal 1.6%, compared with -4.07% in Q2, when the net liquidity supply was

negative. By September 30, 2010 the net liquidity withdrawal amounted to GEL 7.3 million.

3.4 INTERBANK LOANS

In Q3 2010 the volume of loans extended in domestic currency at the interbank credit market reached GEL 1,872 million, up 57.6% quarter-on-quarter. Similar to the preceding period, the volume of US dollar denominated loans grew again, amounting to GEL 210.4 million; however, the growth rate was more modest at 9.3%. Also similar to Q2, the volume of euro denominated loans grew to EUR 66.84 million, up 32.4% quarter-on-quarter.

With regard to maturity terms, the share of overnight loans in total loans denominated in lari grew from 63.7% to 68.5%. Similar tendencies were registered for overnight loans in US dollars and euros: for the US dollars the share increased to 55.5% from 51.5%, while for euros the same share grew to 63.1% from 62.1%.

The dynamics of the above-mentioned transactions in the interbank credit market was accordingly reflected in the interest rates and interbank loan indices; the average quarterly level of TIBR1 was up to 5.94% from 4.14%, while that of TIBR7 grew to 6.68% from 5.7%.

Diagram 3.8
Ratio of Net Supply (Withdrawal) to Reserve Money

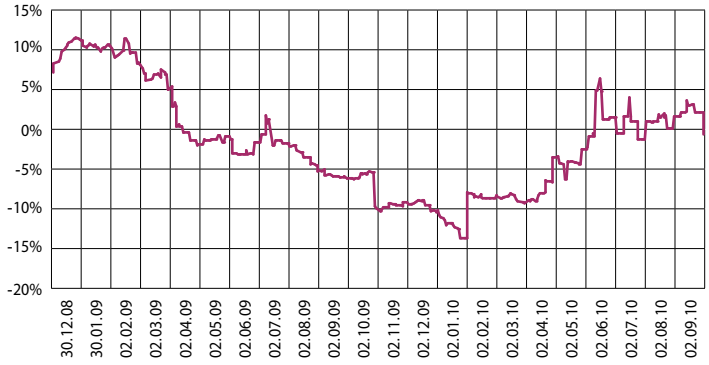
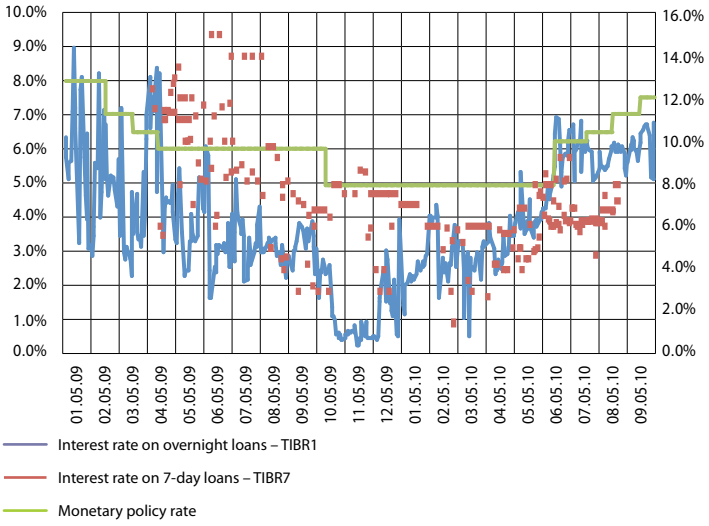


Diagram 3.9
Interbank Short-Term Loan Indices and Monetary Policy Rate



BOX 1. REPO OPERATIONS

On November 11, 2010 19 banks operating in Georgia and the NBG signed a Repurchase (repo) agreement. In the framework of this agreement in conducting repo operations the bank can use the Bloomberg trading terminal where the relevant application is activated.

A repo operation implies the sale of securities on the condition of repurchasing these (or similar) securities at predefined terms. At present securities eligible for repo operations include Treasury bills, Treasury notes and NBG's Certificates of Deposit (as well as other lari denominated debt securities).

In concluding a repo agreement parties agree in advance on the margin rate (in percentage terms), in accordance with which the margin amount (value of securities multiplied by the margin rate) is calculated. The margin amount is deducted from the securities value to obtain the nominal repo value, which is received by the seller on the settlement date in exchange of securities. On the repo redemption date the seller receives the securities back from the buyer and pays the latter the nominal repo value plus the interest (margin amount).

Currently in Georgia the secondary market for securities is practically inexistent due to mutual mistrust on the part of commercial banks. Settlement of every securities trade between sel-

lers and buyers under repo agreements is made electronically and recorded in the NBG's register, providing a certain guarantee for fulfillment of settlement conditions. This will contribute to restoring trust between the banks and developing the secondary securities market, which is the prerequisite for development of financial markets in Georgia.

Development of secondary securities market will increase liquidity of securities. At present purchased T-bills can be used as collateral for receiving NBG's weekly-issued refinancing loans. By means of repo operations the securities could be used at any time in the interbank market in exchange of funds at a lower interest, compared with the NBG's overnight loans or permanent refinancing loans. This will increase demand for more liquid securities in the primary market, conditioning a downtrend in interest rates.

At present commercial banks mainly use the interbank market (TIBR1 and TIBR7) for placement of deposits, avoiding extension of loans due to high risks. As a result, excess liquidity is accumulated. By enactment of repo agreements commercial banks will be able to place idle funds into low-risk assets (as a matter of fact, risk-free assets, in case of government securities) at a higher interest rate (compared with the NBG's overnight deposits).

As it was mentioned, the transactions (borrowing and lending) will be made through the Bloomberg trading system, requiring only a few minutes. As a result, short-term liquidity management (in case the amount of funds on corresponding accounts is larger or smaller than stipulated by reserve requirements) becomes simplier, increasing revenues from management of liquidity in lari.

After introduction of the Central Securities Depository system (expected in mid-December), the actual processing of repo operations between banks (securities registration and money settlement) will be effected through the system promptly and simultaneously (by delivery vs. payment method). As a result, the transaction risk will be practically reduced to zero.

Promptness and convenience of repo operations will further increase interest and demand for securities (more commercial banks will take part in securities trade). Increased competition will drive down money market interest rates and smooth out the yield curve. All these factors are crucial for improving the monetary transmission mechanism.

3.5 BANKING SECTOR

The deposit liabilities of the banking sector in Q3 2010 grew by GEL 728.5 million (19.3%), amounting to GEL 4,501.5 million. Compared with December 2009, the volume of deposits grew 33.4%. In the accounting period the manifested growth rate of deposits is 3 times higher than in the preceding quarter (6.3%). Such a difference is partially explained by the fact that in Q3 the Georgian railways issued USD 250 million worth of eurobonds, and placement of mobilized funds on bank accounts conditioned a drastic change in deposit indicators. Excluding this transaction from deposit calculations, the growth of deposits equals 7.5% in quarter-on-quarter terms and 20.3% relative to December 2009.

The value of foreign currency denominated deposits in lari terms grew by GEL 654.4 million (24.3%), amounting to GEL 3,349.8 million. The growth of deposits in foreign currency is mainly due to increases in legal entities' current accounts. However, if we exclude the deposits of the Railway, the growth is largely driven by individuals' term deposits, continuing the preceding quarter's tendency.

The foreign currency denominated deposits (in US dollar terms) increased by USD 392.9 million (26.8%) quarter-on-quarter. The growth rate is lower for foreign currency denominated deposits if the latter are taken in lari terms, which is due to the lari's exchange rate appreciation. In the accounting period the lari appreciated 2% with respect to the US dollar.

The foreign currency denominated deposits account for 66.4% of total term deposits. It should be pointed out that the share of term deposits shrank, compared with the previous quarter.

The deposits in domestic currency grew by 74.1 million (6.9%) in the accounting period, totaling GEL 1,151.7 million. The growth was largely due to term deposits of legal entities.

Based on the growth rates of deposits denominated in foreign and domestic currencies, the deposit dollarization rate went up by 3.0 pps in September 2010, compared with the June level, constituting 74.4%. Excluding the deposits of the Railway, the dollarization rate stands at 71.6%, slightly up from the Q2 level (71.4%).

In the accounting period the interest rates on deposits fell by 0.2 pps. The weighted average interest rate on lari denominated deposits amounted to 10.0%, up by 0.5 pps relative to June 2010. The annual interest rate on foreign currency denominated deposits stood at 7.6%, down by 0.4 pps relative to June 2010. The interest rate on legal entities' deposits fell by 2.7 pps to 7.1%. Compared with September 2009, the interest rates fell by 0.8 pps for lari deposits and by 2.3 pps for foreign currency deposits.

In Q3 2010 economy crediting by commercial banks grew by GEL 108.1 million, totaling GEL 5,916.2 million.

The loans extended in domestic currency increased by GEL 79.6 million (5.2%) to equal GEL 1,612.8 million, fueled by short-term loans. In the accounting period 56.7% of loans are extended to legal entities, with short-term loans accounting for 42.0%.

The foreign currency denominated loans grew by GEL 28.5 million, totaling GEL 4,304.4 million. In US dollar terms the loans in foreign currency grew by USD 64.3 million (2.8%), amounting to USD 2,382.3 million by the end of the accounting period. Legal entities received 64.3% of this type of loans,

Diagram 3.10
Deposits in Foreign Currency

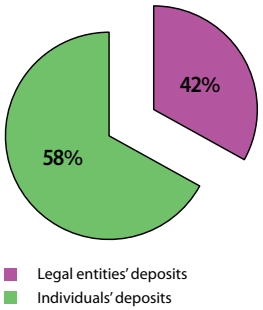


Diagram 3.11
Deposits in Domestic Currency

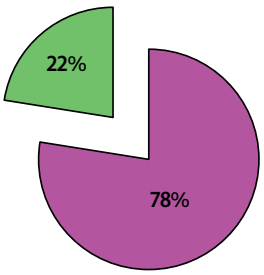


Diagram 3.12
Short-Term Loans in Domestic Currency (GEL millions)

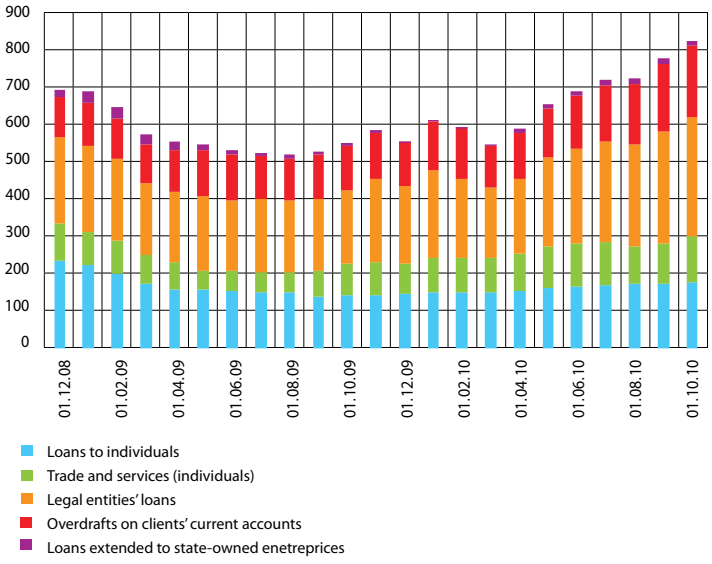


Diagram 3.13
Short-Term Loans in Foreign Currency (GEL millions)

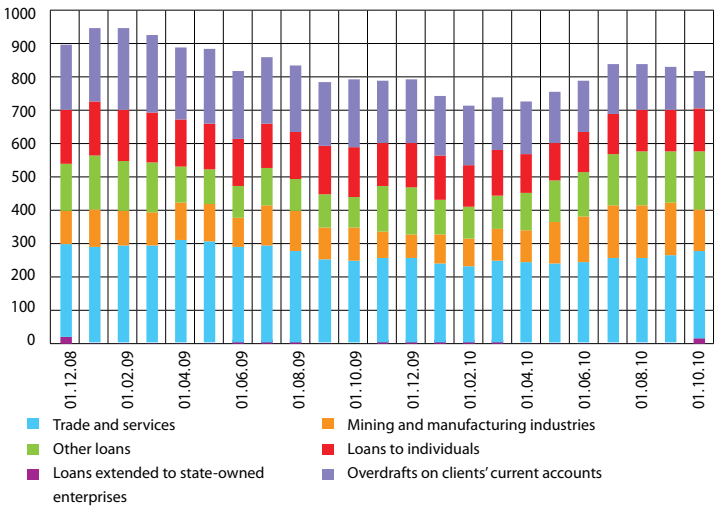


Diagram 3.14
Long-Term Loans in Domestic Currency (GEL millions)

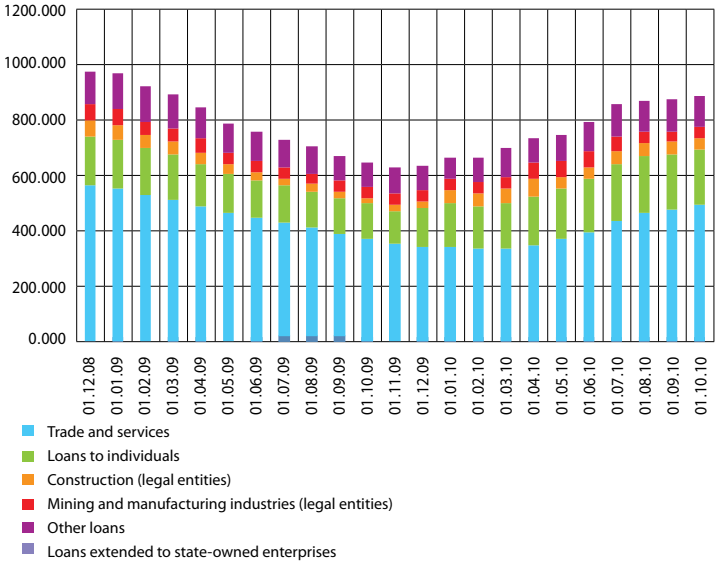


Diagram 3.15
Long-Term Loans in Foreign Currency (GEL millions)

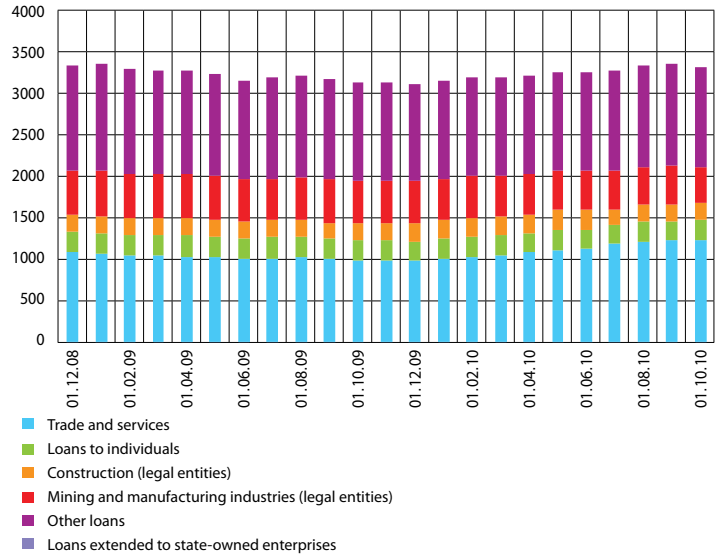
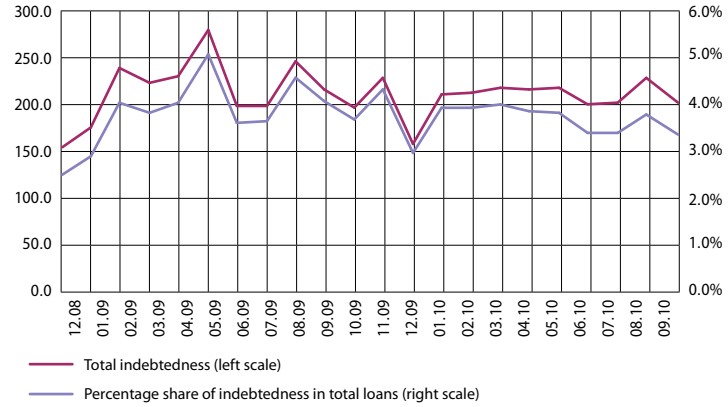


Diagram 3.16
Overdue Indebtedness (GEL millions)



while the share of short-term loans equaled 77.7%.

The volume of foreign currency denominated loans increased 2.8% in the accounting period. The growth is due to long-term loans extended to individuals and legal entities, whereas short-term loans in foreign currency declined 0.3%. The decline was conditioned by contraction of short-term loans extended to mining and manufacturing, agriculture and forestry, and energy sectors. A decline was also registered in the overdrafts of clients' current accounts. Loans extended to the trade sector tended to grow.

In Q3 2010 the overdue loans grew by GEL 1.3 million (0.7%), equaling GEL 202.5 million. On the other hand, the share of indebtedness in total loans declined by 0.04 pps quarter-on-quarter, constituting 3.4%.

In Q3 2010 the annual interest rates on bank loans declined by 0.4 pps, equaling 18.9%. The weighted average interest rate on loans in domestic currency stood at 22.6%. In the same period interest rates on loans in foreign currency fell by 0.9 pps to equal 16.7%. Foreign currency denominated loans were extended to legal entities at 15.1% per annum. Compared with September 2009, the interest rates fell by -4.2 pps for loans in foreign currency and by 0.5 pps for loans in domestic currency.

In the accounting period the financial stability indicators of the banking system stood as follows: Tier 1 Capital Adequacy ratio – 18.2%, return on assets (ROA) – 1.4%, return on equity (ROE) – 8%. Compared with the preceding quarter, in Q3 the above coefficients improved, with the Tier 1 CAR, ROA, and ROE all increasing by 0.8 pps, 0.5 pps, and 3.2 pps, respectively.

3.6 EXCHANGE RATE FACTORS

As it is well-known, the primary goal of the NBG consists in price stability. Therefore, it is impor-

tant to monitor and thoroughly analyze all factors affecting price stability. It is generally agreed that in small open economies there exists a strong relation between exchange rate and inflation: on the one hand, the exchange rate determines prices on imported goods with the latter having a large share in the consumption basket, while, on the other hand, the exchange rate affects the country's national wealth. The exchange rate risk is of great importance for the banking sector, since in a partially dollarized economy borrowers are not fully hedged, thus being exposed to currency induced credit risk[4].

In Q3 2010 the lari's exchange rate was stable, although experiencing small fluctuations. The lari's nominal exchange rate with respect to the US dollar averaged 1.8385, posting a cumulative 2.1% appreciation (See Diagram 3.18), while depreciating 2.4% and 2.8% against the euro and the UK pound sterling, respectively. The lari's real effective exchange rate appreciated 2% in the accounting period. In the accounting period stability of the lari's exchange rate was conditioned by the balancing effect of exchange rate factors. In particular, dry-up of foreign investments and deteriorated trade balance were offset by tourism revenues and supply of foreign currency accumulated in the preceding quarter by commercial banks.

The lari's exchange rate against a foreign currency is determined through interaction of demand and supply in the FX market. In general, demand for foreign currency is driven by imports, which should be financed by exports and foreign capital inflows. It should also be noted that the FX auctions introduced by the NBG play an important role in smoothing exchange rate fluctuations caused by temporary misbalances between supply

Diagram 3.17
Interest Rates on Loans and Deposits

Diagram 3.18
Dynamics of Lari's Nominal Exchange Rate (2008-2010)

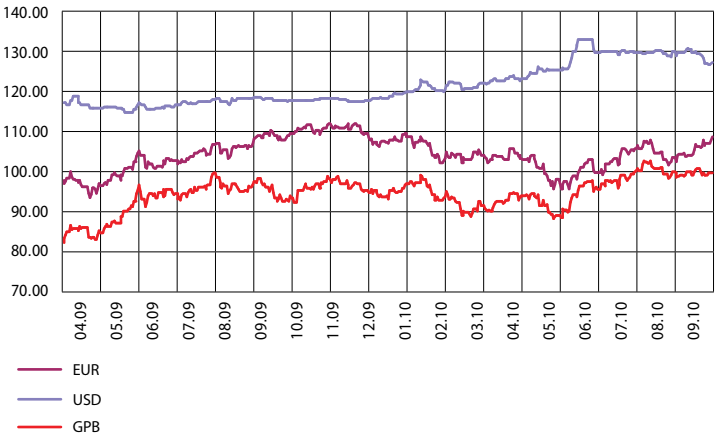
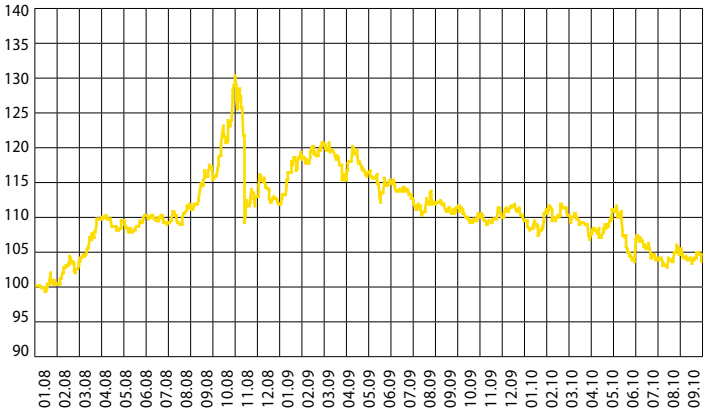


Diagram 3.19
Lari's Nominal Effective Exchange Rate Index (2008-2010)



4 See: 2009 Financial Stability Report

Diagram 3.20
Lari's Real Effective Exchange Rate (2007-2010)

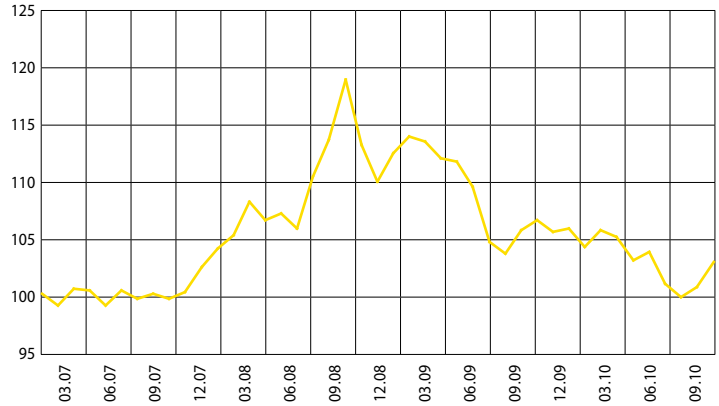


Diagram 3.21
NBG's Interventions in the FX Market (USD millions)

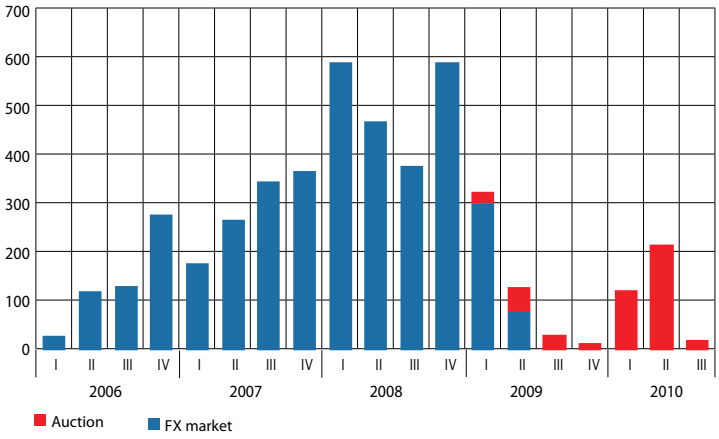
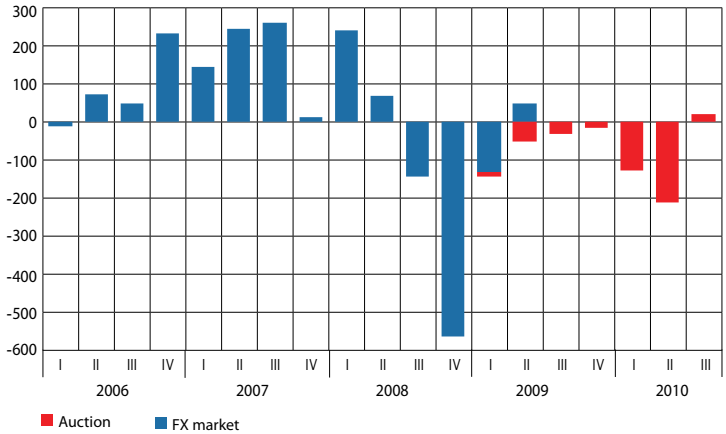


Diagram 3.22
The NBG's Net Purchases in the FX Market (USD millions)



and demand.

According to the NSO data, in Q3 2010 the trade deficit widened, amounting to GEL 905 million. Meanwhile, the NBG's preliminary estimates[5] pointed to a decline in FDIs, which represented primary factors for the lari's exchange rate depreciation. It should be noted that in the accounting period the money remittances increased 11% quarter-on-quarter, totaling USD 228 million[6]. Preliminary estimates also indicate growth of tourism revenues. Accordingly, higher money remittances and tourism revenues counterbalanced demand for foreign currency and conditioned a relative stability of the exchange rate. In Q3 2010 commercial banks tended to sell foreign currency excessively purchased in the preceding quarter. In this regard the NBG's FX auctions are important, which are aimed at avoiding drastic exchange rate fluctuations caused by temporary misbalances between supply and demand (See Diagram 3.21).

Important determinants of foreign currency demand also include dollarization level of the economy and speculative capital forming certain expectations in the market. In Q3 2010 the loan dollarization rate declined by 1 percentage point, while the deposit dollarization grew by 2.9 pps. However, this increase in deposit dollarization rate was conditioned by the sale of eurobonds by the Georgian Railway. Excluding this one-time factor, the Q3 deposit dollarization rate practically did not change. High level of deposit dollarization is in turn conditioned by economic agents' expectations with respect to the lari's possible depreciation in the future. A general psychological factor related to political risks should be also mentioned, conducing to population's mistrust of the lari and giving the

5 Preliminary estimates are based on data provided by the commercial banks related to purposes of transferred funds. To remind, the refined BoP data are published on the 90th day after the end of the quarter.
6 The data are not final, being the NBG's preliminary estimates

US dollar a status of a risk-free currency.

3.7 PRODUCTION AND DEMAND

Economic growth initiated in Q4 2009 significantly accelerated in the first half of the year 2010. In annual terms the real GDP posted 4.5% and 8.4% growth rates in Q1 and Q2, respectively. The nominal GDP growth rate in Q2 equaled 16.7%[7], while the GDP deflator rose 7.6%.

The annual GDP growth was mainly fueled by value-added growth in four sectors of the economy: manufacturing, trade, transport, and construction. Significant positive impact was also made by production and distribution of electricity, natural gas, and water, and community, social, and personal services. Annual decline was posted in the sectors of agriculture and processing of products by households.

It is worth mentioning that seasonally adjusted data does not show that in the post-stagnation period the growing economic sectors are on the uptrend. This means that despite high value-added growth in industry, trade, transport, and construction sectors, the growth tendencies in these sectors are not yet clearly pronounced.

Overall, in the first half of the year 2010 the economy enjoyed high sectoral growth rates. The sectoral analysis shows that in Q3 2010 the real GDP growth will equal approximately 7.7%. It is remarkable that such increase in value-added will be possible to a certain extent against the backdrop of GDP decline a year before.

3.7.1 PRIVATE AND GOVERNMENT CONSUMPTION

In the first half of 2010 the nominal GDP enjoyed rapid growth.

In Q2 the nominal growth was reflected in all categories of expenditure-method calculated GDP. In

Diagram 3.23
Dynamics of Georgian Trade Balance and Current Account

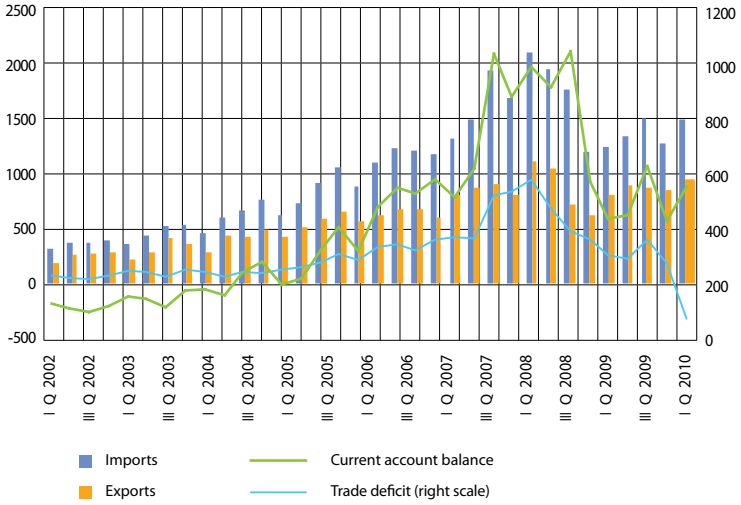


Diagram 3.24
FDIs in Georgia (USD millions)

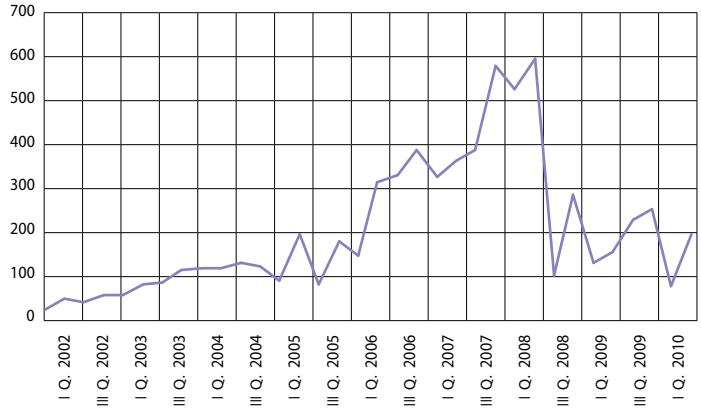
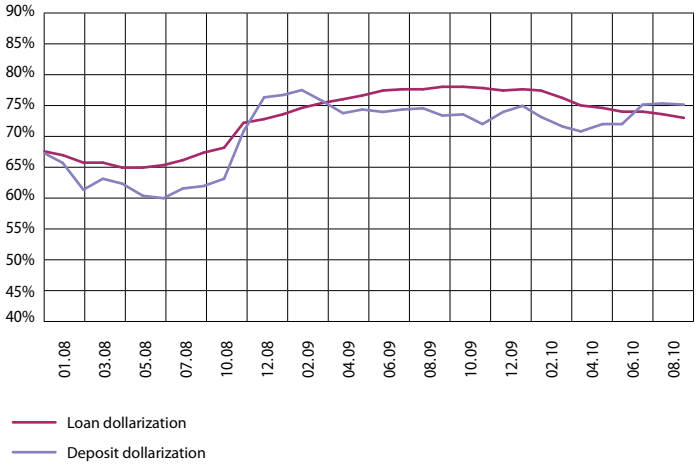


Diagram 3.25
Loan and Deposit Dollarization Rates

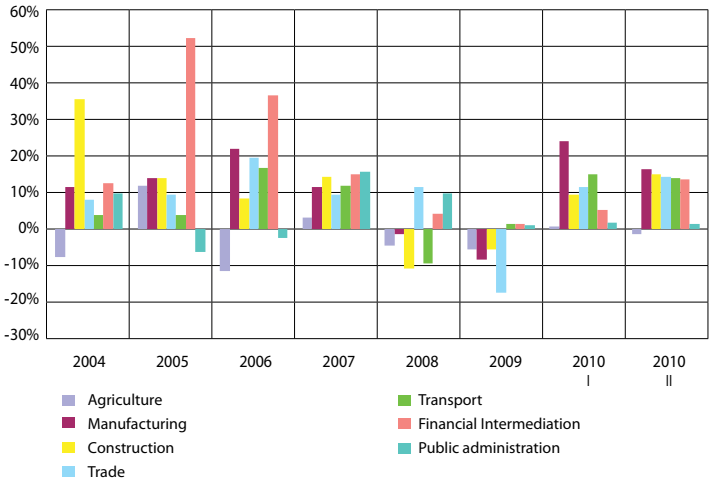


7 It should be noted that high growth rates of nominal and real GDP in Q2 2010 were achieved against the backdrop of drastic contraction of the economy (10%) in Q2 2009, accompanied with a significant drop of the deflator.

Table 3.6
Sectoral Share in Real GDP, Q3 2010
Percent

	Annual growth rate	Share in GDP	Impact on GDP (pps)
Agriculture, hunting and forestry; fishing	-1.4%	12.6%	-0.2%
Mining and quarrying	2.3%	0.8%	0.0%
Manufacturing	16.5%	10.9%	1.8%
Electricity, gas and water supply	14.5%	4.0%	0.6%
Processing of products by households	-1.9%	3.1%	-0.1%
Construction	15.2%	8.1%	1.2%
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	14.5%	10.8%	1.6%
Hotels and restaurants	8.0%	3.7%	0.3%
Transport	14.2%	9.9%	1.4%
Communication	2.9%	6.0%	0.2%
Financial intermediation	13.6%	2.8%	0.4%
Real estate, renting and business activities	4.4%	3.6%	0.2%
Imputed rent of own occupied dwellings	2.7%	2.8%	0.1%
Public administration	1.3%	3.8%	0.0%
Education	1.0%	4.1%	0.0%
Health and social work	0.4%	5.7%	0.0%
Other community, social and personal service activities	16.8%	3.5%	0.6%
Private households employing domestic staff and undifferentiated production activities of households for own use	6.5%	0.1%	0.0%
FISIM adjustment	-3.1%	-1.3%	0.0%
GDP at basic prices	**7.4%**	**95.2%**	
Taxes on products	15.4%	5.3%	0.3%
Subsidies on products	7.3%	-0.5%	0.0%
GDP at market prices	**8.4%**	**100.0%**	**8.4%**

Diagram 3.26
Dynamics of Sectoral GDP Growth (2004 – Q2 2010)



particular, in the accounting period the year-on-year growth rates equaled 9.6% for final consumption expenditures, 143.9% for gross capital formation, 29.2% for exports, and 31.8% for imports.

After a certain decrease in final consumption expenditures in Q1 2010, the latter rose in Q2 both quarter-on-quarter and year-on-year, fueled by an 8.5% growth of households' consumption expenditures and a 13.4% growth of government consumption (in year-on-year terms).

In order to analyze the annual dynamics of household consumption it is worth adjusting the latter by the CPI. Excluding the CPI effect, the real final household consumption[8] expanded 3.9% in annual terms and 5.4% with respect to the previous quarter.

In Q2 2010 a slight annual increase (5.5%) was posted for collective services of government consumption; with respect to the previous quarter this increase was more significant (33.4%). In annual terms the government consumption of individual services soared (at 65.3%), while the quarterly growth was negative at -7.4%.

Exports and imports of goods and services in Q2 posted significant quarterly and annual growth rates. The latter were largely conditioned by price gains on both export and import goods, although physical volumes increased as well. It is remarkable that in Q2 2010 the growth rate of imports exceeded that of exports.

3.7.2 INVESTMENTS

As it was already mentioned, in Q2 2010 the gross capital formation posted an impressive (143.9%) year-on-year growth rate. However, it should be taken into account that in Q2 2009 the gross capital formation plummeted, contracting 74% in annual terms. In the accounting period the quarterly growth

8 In Q2 the household consumption accounted for 77% of total consumption.

equaled 75%, powered by domestic investments.

The changes in inventory have been on the uptrend for the third consecutive quarter. After a considerable contraction throughout the previous year, the production inventories have been growing steadily, albeit at a relatively slow pace. The existing data shows 15% to 20% quarterly growth rates of inventories.

The annual growth rate of total investments in fixed capital in Q2 2010 stood at 20.4%. Despite such a high indicator, the gross capital formation (in nominal terms) still lags behind its pre-crisis level.

In the first half of 2010 the uptrend in gross capital formation and production inventories represents a certain sign of economic revitalization.

3.7.3 2010 FORECAST

In Q2 2010 the real GDP growth was projected at 6%, although the actual figure released by the NSO of Georgia showed an 8.4% growth rate.

In Q3 2010 the annual rate of real economic growth is forecasted at approximately 7.7%. This high level of economic performance is corroborated by the VAT taxpayers' turnover data, which posted an annual growth rate of 26.3%.

The largest impact on real value-added growth is projected to be attributed to manufacturing (1.7 pps), trade (1.5 pps) and (transport (1.4 pps). Significant growth is also projected in the construction sector.

Overall, the forecast of 2010 growth rate has been improved, now standing at 6.3%.

The projected growth of the 2010 GDP deflator stands at 7.4%, implying a 14.2% growth rate of the nominal GDP.

Current forecasts hold the 2011 economic growth at 4.5%. Despite positive developments, the country's economy will struggle to achieve the pre-crisis growth rate levels of gross capital formation or consumer demand. In the short-term perspective the proportion of exports to imports will not be drastically changed in favor of exports. The current year developments enjoy a positive base effect with respect to 2009 contraction, while in 2011 the growth comparison will be made with respect to the post-crisis 2010 level.

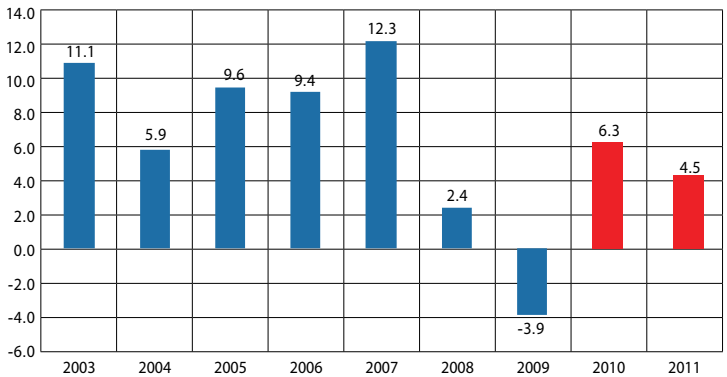
Extrapolation of seasonally adjusted data to future perids show that in 2011 the real GDP growth will be in the range of 4-5%.

3.8 EXTERNAL TRADE

The external trade turnover had been permanently growing since 2003. Against the backdrop of August military hostilities and the global financial crisis the registered exports and imports posted a decline in Q3 2008 followed by an annual contraction. As of Q3 2010, the external trade turnover considerably falls behind the pre-crisis level (by 19.7%).

In Q3 2010 the external trade turnover totaled USD 1,650.9 million, up 14.8% year-on-year[10]. The registered exports of goods equaled USD 377.5

Diagram 3.27
Real GDP Growth[9]



9 Figures for 2010 and 2011 are the NBG's projections
10 The source of external trade data represents the NSO of Georgia. The data on exports and imports of goods in the balance of payments differ from external trade data due to methodological differences.
11 Registered trade did not include cars imported under the warehouse regime, the part of which was further reexported. Starting from 2010 this part of exports has been registered, increasing the export growth rate. Concurrently, the same cars are not included in imports, reducing trade deficit.

Diagram 3.28
Exports, Imports, Trade Deficit and Trade Turnover

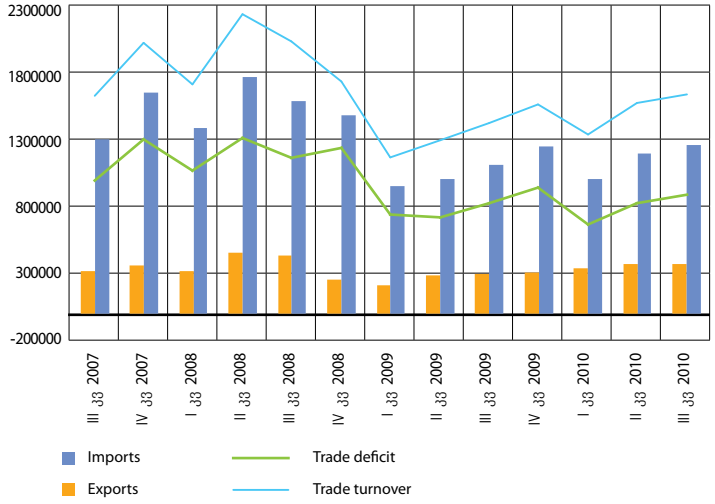
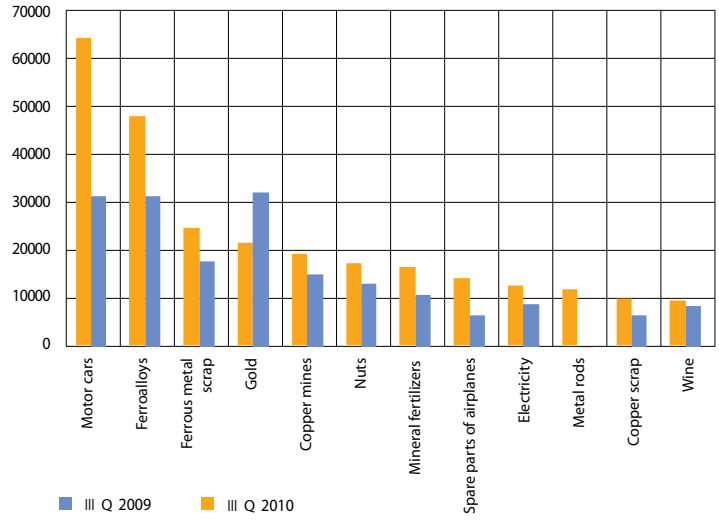


Diagram 3.29
Top Export Commodities



million, up 22.9%[11]. For the same period, the registered imports of goods amounted to USD 1,273.4 million, or 12.6% more. As a result, in Q3 2010 the trade deficit stood at USD 895.9 million, up 8.8%.

In Q3 2010 the registered exports of goods posted a 0.4% quarterly decline, whereas the registered imports and trade deficit grew 5.2% and 7.7%, respectively.

In the accounting period the exports of goods were fueled by reexport of motor cars, as the latter doubled in annual terms and moved to the first position in the export list. The growth of motor car reexport took place at the expense of used cars, posting a quarterly growth rate of 53.1%. The ferroalloys, being traditionally the number one export commodity, moved to the second place, increasing 52.6% year-on-year largely due to price gains. The exports of ferrous and non-ferrous metals also rose considerably. It should be pointed ut that in the base period against the backdrop of the global financial crisis the international prices on ferrous and non-ferrous metals were very low, which conditioned essential contraction of exports. The exports of nitrogen fertilizers also posted a significant increase (57.3%). It is remarkable that in Q2 and Q3 2010 the exports of electricity essentially rose due to increase in production after repair works of hydropower stations. Starting from Q2 2010 the top 10 export list included a new industrial product, carbon metal rods, whose export value amounted to USD 11.9 million in the accounting period.

In Q3 2010 the top 10 export commodities included: motor cars, ferroalloys, ferrous metal scrap, gold, copper mines, electricity, carbon metal rods. In the same period 4.7% of exports represented investment goods, 58.0% - goods of intermediate consumption, and 37.1% - consumer goods.

With regard to imports, in the accounting period the first position was traditionally occupied by import of petroleum products. The latter grew 19.1% year-on-year, due to increases in prices and physical volumes. In the same period, the import of motor cars, occupying the second position, posted an annual increase of 50.4%. Relatively large increase (2.2 times) was registered in imports of electrical apparatus for line telephony or line telegraphy.

In Q2 2010 11.4% of imported goods represented investment goods, 39.2% - goods of intermediate consumption, and 39.2% - consumer goods.

In Q2 2010 the top trading partners for Georgian

exports stood in the following order: Turkey, Azerbaijan, the United States, Armenia, Ukraine, Canada, Spain, Kazakhstan, Russia, Bulgaria. These countries accounted for 77.5% of total registered exports.

The ranking of top trading partners for imports was as follows: Turkey, Ukraine, Azerbaijan, China, Germany, Russia, the United States, Romania, Bulgaria, the United Arab Emirates. The share of these countries in total imports equaled 67.3%.

3.9 GOVERNMENT OPERATIONS

In Q3 2010 the revenues and grants of the consolidated budget amounted to GEL 1,443.9 million. The amount of grants was GEL 132.7 million, and the tax and non-tax revenues totaled GEL 1,311.2 million. The ratio of Q3 revenues to GDP[12] equaled 25.5%, down 3.4 pps year-on-year and 0.7 pps quarter-on-quarter. The tax burden (ratio of tax revenues to GDP) in Q3 200 equaled 23.6%, or 2.3 pps less quarter-on-quarter and 0.3 pps less year-on-year. The Q3 grant incomes accounted for 2.6% of GDP.

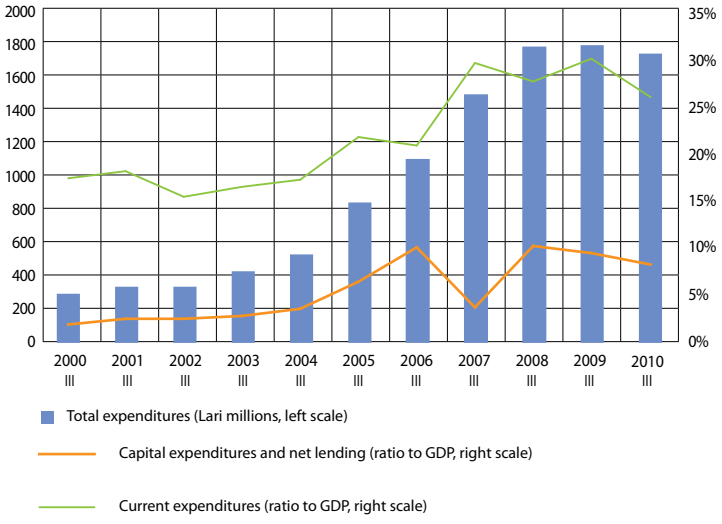
In Q3 2010 the total expenditures of the consolidated budget equaled GEL 1,719.3 million, or GEL 38.4 million less quarter-on-quarter and 2.7% less year-on-year. Current and capital expenditures in Q2 totaled GEL 1,306.3 million and GEL 413 million, respectively. Capital expenditures posted a 32% increase quarter-on-quarter and a 1.5% increase year-on-year. The ratio of total expenditures of the consolidated budget to GDP equaled 33.5%, which is 3.5 pps more quarter-on-quarter and 5.1 pps less year-on-year.

In Q3 2010 the consolidated budget deficit equaled GEL 275.4 million, or 5.4% of GDP. The primary source of deficit financing represented an increase in liabilities: issuance of T-bills covered GEL

Table 3.7
Consolidated Budget Indicators

	Q3 2010	Percent of GDP (Q3 2010)
Total revenues and grants	**1444**	**28,1%**
Revenues	1311	25,5%
Tax revenues	1210	23,6%
Non-tax revenues	101	2,0%
Grants	133	2,6%
Total expenditures	**1719**	**33,5%**
Current expenditures	1306	25,4%
Capital expenditures and net lending	413	8,0%
Deficit	**-275**	**-5,4%**
Deficit financing	**239**	**4,7%**
Privatization	54	1,0%
Use of free circulating funds	-28	-0,5%
Net increase in domestic liabilities	60	1,2%
Net increase in foreign liabilities	153	3,0%

Diagram 3.30
Dynamics of Budget Expenditures



12 Q3 2010 projections.

60.1 million, while the increase in external liabilities amounted to GEL 153.3 million. Privatization proceeds equaled GEL 53.8 million, while free circulating funds grew by GEL 21.9 million.

In the accounting period the fiscal policies did not significantly impact money supply. In Q3 2010 the NBG's reserve money expanded 2.1% (by GEL 34.9 million). The impact of government operations on the changes in reserve money equaled 1.87 pps. The impact of monetary operations was -2.1 pps, while the external sector's impact equaled 2.3 pps.

In the accounting period the largest share of state budget expenditures represented expenditures on general government (GEL 365 million), spent on the activities of different executive and representative organs, provision of financial and fiscal activities, and servicing state debt.

In Q3 2010 the second largest category of state budget expenditures represented expenditures on social assistance, totaling GEL 346 million (21%). A significant share of these expenditures was used for social protection of aged persons, social insurance of households and children, social alienation problems and social protection of sick persons and persons with limited capabilities.

In the accounting period GEL 237 million (15%) was spent on economic activities. Expenditures in this category were largely spent on motor car transport and rehabilitation of road infrastructure, multi-purpose development projects, tourism, and energy.

By end-September 2010 the total state debt grew 5.5% (GEL 470 million) quarter-on-quarter to equal GEL 9 billion. The external liabilities increased by GEL 406 million, while domestic liabilities rose by GEL 64 million. At the end of Q3 the forecast of the 2010 state debt constitutes 45.9% of GDP, slightly (by 2.4 pps) exceeding the Q2 level. The forecast does not exceed the critical level (60% of GDP).

4. INFLATION FORECAST

In forecasting inflation the NBG uses two approaches. On the one hand, the NBG observes indices for each product making part to the consumption basket and makes inflation forecasts under certain assumptions and projections. On the other hand, the NBG applies econometric modeling of inflation dynamics.

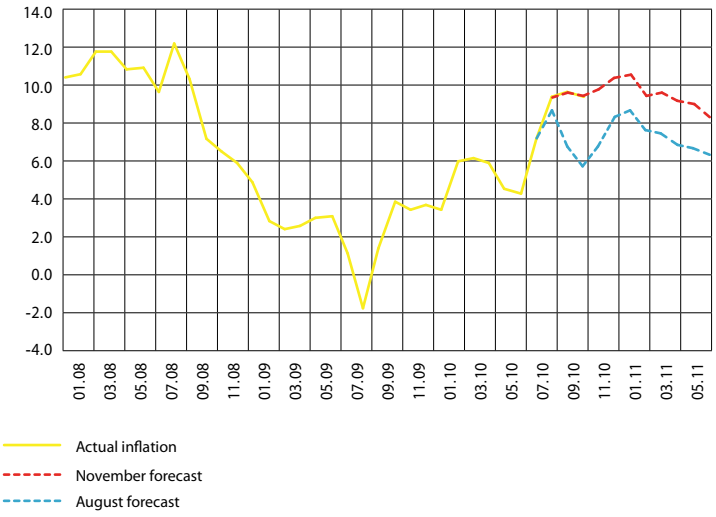
For short-term inflation forecasting, the NBG takes into account assumed dynamics of world prices on certain important products of the consumption basket. In order to estimate price dynamics of individual commodity groups of the consumption basket, all available information on such commodities is used (seasonality, expected changes in international prices, changes in administrative prices, etc.). The price dynamics at the end of 2010 and in early 2011 will be largely determined by food prices. International price gains for wheat led to price increases for main food items in Georgia. Such increase in food prices implies persistence of high annual inflation rates in the following months. However, since a rise in food prices was caused by a one-time factor, it is expected that after one year food price gains will no longer affect inflation and the latter will return to the targeted level. Forecasts of price dynamics for fruits and vegetables and for dairy products were made, taking into account seasonal factors. The effect of price gains for medicaments caused by the exchange rate movements will affect the inflation rate during a year. In line with the assumptions on inflation forecasts, the change in transport fees will be related to oil price dynamics during 2010. Current projections estimate the price of oil to oscillate in the range of USD 80-85. The forecast assumes that administrative prices will remain unchanged in the next year. Forecasts on price dynamics for other commodity groups take into account the information on expected tendencies for relevant economic sectors. Inflation forecasts show that at end-2010 the inflation will fall to 10.6%, while at end-Q1 2011 the inflation rate will stand at 9.8%, further declining to 8.4% in Q2.

It should be noted that the inflation forecast was revised upwards, compared with the previous quarter. The revision was mainly conditioned by higher than expected price increases in the domestic market due to price gains for wheat in the international markets.

It should be noted that inflation forecasts based on this method are useful for a 6-month time horizon, losing its precision for a longer period.

An updated inflation forecasting model is determined as follows:

Diagram 4.1
Annual Inflation Forecast by Individual Components of the Consumption Basket



$$\delta p = 0{,}11\delta e_{-2} - 0{,}057\delta e_{-4} + 0{,}047\delta m_{-1} + 0{,}045\delta m_{-2} -$$
$$- 0{,}011\delta m_{-3} + 0{,}004\delta p^{oil}{}_{-1} + 0{,}09\delta p^{food} - 0{,}013 ecm;$$

where:

P is CPI;

m – money mass;

e – GEL/USD exchange rate;

P^{oil} – a world average price on oil;

P^{food} – prices on fruits and vegetables;

ecm – a long-term equilibrium variable having the following form:

$$ecm = p_{-1} - 0{,}42e_{-1} - 0{,}58m_{-1} + 0{,}79y_{-1} - 5{,}9$$

y – GDP.

The equation also includes seasonal and dummy variables to account for seasonality and structural breaks.

The following assumptions were made with respect to future values of the explanatory variables within the model:

• Broad money excluding foreign deposits will grow 7.1% from September until end-year and 23.1% with respect to December 2009;

• The real GDP growth will equal 6.3% per annum;

• The nominal exchange rate against the US dollar will remain unchanged

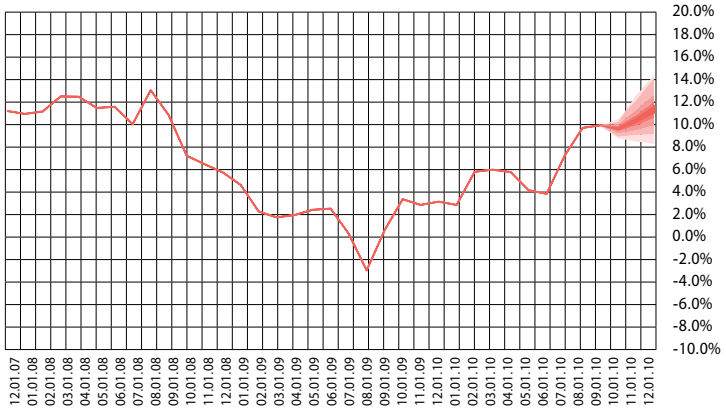
• Prices on fruits and vegetables will follow the previous year's trends, accounting for seasonality;

• The average oil price in the world market will slightly increase, averaging 83 USD/barrel in Q4.

As a result of model estimations, the annual inflation forecast looks as follows (Diagram 4.2.).

According to the obtained results, at 10% probability the annual inflation will change between 10.83% and 11.46% at end- 2010.

Diagram 4.2
Inflation Forecast (Econometric Modeling)



BOX 2. MONETARY POLICY RATE

The main function of the NBG is to conduct monetary policy focusing on price stability. The main instrument of monetary policy is the NBG's short-term interest rate, representing a short-term benchmark. By means of overnight loans and overnight deposits an interest rate band has been formed, which will decrease interest rate volatility in the market.

By altering the policy rate the NBG aims at influencing aggregate demand as well as inflationary expectations. Changes in the policy rate affect aggregate demand through a number of channels. Policy rate hike by the NBG spreads to short-term interest rates in the banking sector. Changes in short-term interest rates are transmitted to longer-term interest rates and, ultimately, bank loan interest rates. Increased policy rate conduces to savings accumulation and lowers business investments and consumer expenditures. Other things being equal, this process conduces to reduction in price level.

Changes in interest rates also affect aggregate demand through exchange rate and credit channels. Other things being equal, a policy rate hike promotes capital inflows and strengthens the domestic currency. Accordingly, prices on imported goods decrease, intensifying competition for domestic goods and affecting price level for the latter due to a fallen demand. With regard to crediting, a policy rate hike lead to contraction of crediting by financial institutions and/or increase in interest rates. As a result, firms' profitability decreases and credit availability worsens, leading to decline in investments. Ultimately, this makes an impact on demand and price level. Due to these factors we can conclude that there exists a relation between inflation and interest rates.

A decision on policy rate change is made based on current and expected economic processes and financial market observations. In determining monetary policy the inflation forecast is taken into consideration, since monetary policy influence on the country's economy is manifested with a time lag. If a forecast exceeds the inflation target, the NBG applies monetary policy tightening by raising the policy rate, in order to curb increase in price level. In the opposite case, when the inflation forecast is lower than the target, the NBG loosens monetary policy – a policy rate cut with a certain time lag is transmitted to loan interest rates, stimulating aggregate demand.

Inflation can be a result of different factors. For example, an increase in general price level may be influenced by growth of aggregate demand which is not met by relevant aggregate supply. It can also be an impact of exogenous factors. The latter are difficult to be curbed by means of monetary policy. Such factors include developments in the international markets, changes in taxes, natural calamities, changes in administrative prices, etc. One of the examples represents price gains for wheat in the international market, moving domestic prices up. Exogenous factors cannot be managed through domestic monetary policy, which implies that central banks do not combat rise in inflation due to such factors. However, if this situation creates inflationary expectations, which will affect the general price level, monetary policy should be tightened through policy rate cuts with the purpose of curbing inflationary expectations. Change in the policy interest rate through the monetary transmission mechanism exerts a downward pressure on aggregate demand via different channels, leading to a decline in price level.

Therefore, the primary determinant of the policy interest rate is not the actual inflation rate but the latter's forecasts and inflationary expectations of the population. A lower policy rate set by the NBG will boost investments and consumer expenditures, whereas a higher interest rate stimulates savings. The policy rate indirectly affects the money mass.

It should be taken into account that the efficiency of the policy rate depends on the population's and businesses' propensity to save, to consume, to invest, etc. In addition, there will be a certain time lag until the monetary policy effect is manifested.

5. DECISIONS OF THE MONETARY POLICY COMMITTEE

In Q3 2010 the NBG's Monetary Policy Committee (MPC) convened three meetings. The policy rate was increased by 25 basis points at the first meeting, remained unchanged at the second meeting, and was further increased by 50 basis points to 7% at the third meeting.

The NBG continued monetary policy tightening in Q3, started in the precedint quarter. In the accounting period the economic growth forecast was revised upwards to 6%. High economic growth rates are conditioned, on the one hand, by fiscal stimulus programs and by an increasing pace of economy crediting since early 2010, on the other. Growth of loans to individuals should be pointed out, which represents an important factor of forming aggregate demand. As a result, the inflation risks rose, creating the necessity of monetary policy tightening. In this regard, on July 21 the MPC decided to hike the policy rate by 25 basis points to 6.5%.

In the accounting period the inflation rate grew considerably. The increase was largely due to food price gains in the international markets which was duly reflected in the domestic market. Therefore, high inflation represented a result of external (exogenous) factors, subject to limited impact on the part of monetary policy. However, the dynamics of core inflation indicates an increase in inflationary expectations. The MPC also took into account relatively higher inflationary tendencies in the neighboring countries, and on September 15 it was decided to increase the policy rate to 7%.

In the accounting period the amendments to the ""Rule on Calculation and Observance of Minimum Reserve Requirements" became effective, stipulating compulsory provisioning of borrowings attracted from external sources. Increased reserve requirements represent a step towards monetary policy tightening, and in case of necessity the MPC will reconsider the appropriateness of further monetary policy tightening by means of raising reserve requirements.

BOX 3. RESERVE REQUIREMENTS AS THE MONETARY POLICY INSTRUMENT

Minimum reserve requirements represent an instrument of monetary policy through which central banks try to control the money multiplier and, by means of the latter, the money mass. By reserve requirements it is meant that commercial banks are obliged to keep a defined portion of attracted funds at the central bank. Thus, under reserve requirements commercial banks are allowed to extend the portion of attracted funds which is left after providing for required reserves. The higher the reserve requirements, the smaller amount of loans are commercial banks able to extend, resulting in a smaller money mass; and vice versa, the lower the reserve requirements, the higher is the money multiplier and, accordingly, the faster is the growth of money mass. Therefore, by raising or lowering reserve requirements a central bank is able to control the growth rate of monetary mass in the economy.

In addition, changes in reserve requirements influence commercial banks' interest rates. Obliged to keep a certain portion of attracted funds at the central bank to observe reserve requirements instead of placing these funds into profit-yielding assets, commercial banks lose revenues which they could have obtained in the absence of reserve requirements. The higher the reserve requirements, the larger are implicit losses and the more expensive become attracted funds. Therefore, other things being equal, raising reserve requirements impels commercial banks to raise loan interest rates or lower deposit interest rates. As we can see, increasing reserve requirements is tantamount to monetary policy tightening in terms of the impact on money mass and interest rates.

In Georgia the minimum reserve requirements equal 10% for attracted funds in domestic currency and 5% for funds in foreign currency. It should be noted that reserve requirements for funds in domestic currency are observed with respect to the average balances on commercial banks' corresponding accounts, which means that banks should keep the minimum required reserves on their corresponding accounts at the NBG for a two-week period on average. Required reserves for funds attracted in foreign currency are kept on a special frozen account, and a bank cannot use these funds.

Due to high dollarization in Georgia the monetary policy transmission mechanism is quite weak. By means of changing the policy rate the NBG affects only interest rates on lari denominated funds. However, since the share of lari denominated loans in the country's economy is small, the transmission of changes in the monetary policy rate to loan interest rates is weak. Under such circumstances changes in reserve requirements, as an instrument affecting the interest rates on foreign currency denominated funds, are of particular importance.

Acceleration of economic recovery in the second half of the year led to development of inflationary processes. This brought about necessity of monetary policy tightening. Starting from June 2010 the NBG's Monetary Policy Committee increased the policy rate by 2.5 pps to 7.5%. After some time the change affected interest rates on lari funds, but the impact on the interest rates for foreign currency denominated loans was not visible.

In order that monetary policy tightening could affect foreign currency denominated loans and cover the total economy, the NBG is authorized to use the instrument of minimum reserve requirements. In this regard amendments to the "Rule on Calculation and Observance of Minimum Reserve Requirements" were introduced from September 2010, according to which external borrowings became subject to reserve requirements. In case of necessity related to further tightening of the monetary policy the NBG's Monetary Policy Committee will review the possibility of using the instrument of reserve requirements.

It should also be pointed out that central banks in the developing countries often use the minimum reserve requirements in order to promote the dedollarization process. In particular, central banks retain high reserve requirements for funds attracted in foreign currency, which makes the latter more expensive, thus, creating incentives

for commercial banks to shift their focus on domestic currency operations.

The reserve requirements instrument is also used to combat "hot money". As it is known, inflows of short-term, speculative capital into developing countries with relatively high interest rates create difficulties for their economies. In particular, this leads to exchange rate appreciation and worsening of competitiveness, increasing a country's external risks. To counter these problems developing countries often use taxation of short-term capital inflows. If the capital inflows enter the country through the banking channels, it is possible to use higher reserve requirements as equivalent to capital taxation.

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