საქართველოს ეროვნული ბანკი
National Bank of Georgia

Monetary Policy Report

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MONETARY POLICY IN GEORGIA

- **The aim of the monetary policy is to maintain low and stable inflation** and thus promote macroeconomic stability, which in turn is a precondition for robust and sustainable economic growth, low interest rates and decreasing unemployment.

- **The long-term CPI inflation target is 3%.** The inflation target of the National Bank of Georgia is planned to decrease gradually to 3%. The inflation target for 2016 is set at 5%, for 2017 – at 4%, and from 2018 – at 3%.

- **Since monetary policy decisions impact the economy with a certain time lag (4-6 quarters),** the formulation of monetary policy is done according to inflation forecasts in order to hit the target in the medium term. The medium term horizon depends on shocks and exogenous factors that influence the rate of inflation and aggregate demand.

- **The primary tool of monetary policy is the refinancing rate**. The change of the policy rate is transmitted to the economy through market rates, exchange rate and credit activity, thus influencing aggregate demand. The difference between the actual and natural level of demand is the main determinant of inflation in the medium term.

- **Monetary policy decisions are communicated to the general public via press releases.** The vision of the bank with regard to ongoing and expected macroeconomic activity is published in the Monetary Policy Report in the second month of every quarter.

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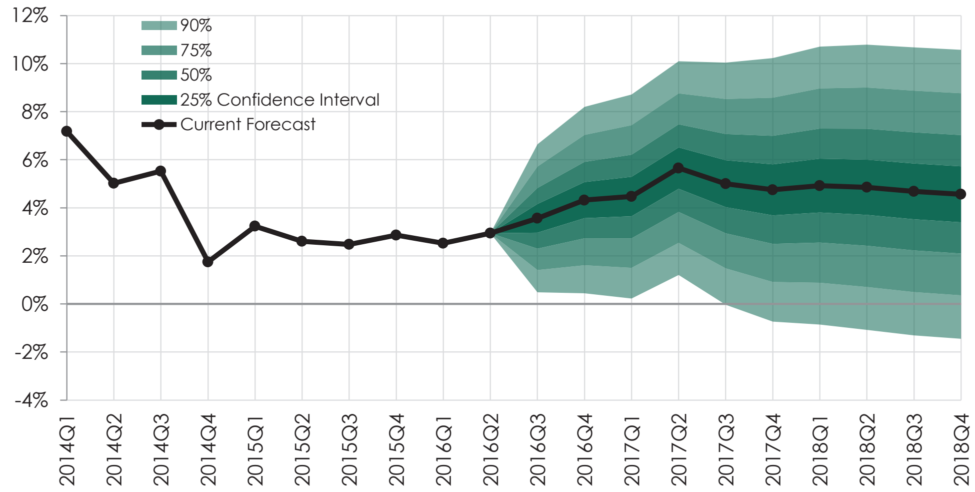
1. Brief Overview

Economic growth continues to be negatively affected by external shocks stemming from the tough economic conditions facing Georgia's trading partners and by continued global economic weakness. Annual real GDP growth slightly decelerated, amounting to 2.6% in the first quarter of 2016, while it was 3.1% in the second quarter, according to preliminary estimates. Economic growth has been supported by domestic demand. This was mainly driven by expanding fiscal stimulus and improved investor's confidence, which collectively contributed to higher consumption and investments. On the other hand, net exports made a negative contribution to economic growth, owing to increased imports.

According to the **economic growth forecast** of the National Bank of Georgia, real GDP growth in 2016 will be around 3.5% (see Figure 1.1). Fiscal stimulus, alongside the normalization of monetary policy, is expected to support lending. This, in turn, will help investment and consumption growth rates. The main impediment for economic growth remains the foreign sector. The unfavorable conditions in Georgia's trading partners are expected to continue to negatively affect net exports, which will make a negative contribution to real GDP growth in 2016. In particular, weak exports and remittances are expected in 2016. However, the growth of tourism inflows and foreign direct investments are likely to continue, which will contribute to reducing external imbalances. Oil prices, despite being higher than they were at the beginning of 2016, remain low and continue to have a heterogeneous effect on the Georgian economy. On the one hand, this has negatively influenced Georgia's oil-exporting trading partners and their problems have been transmitted to the domestic economy through trade and financial channels. On the other hand, the direct impact on the Georgian economy has been positive, being reflected in lower consumer prices and savings on oil imports.

Figure 1.1 Real GDP Growth

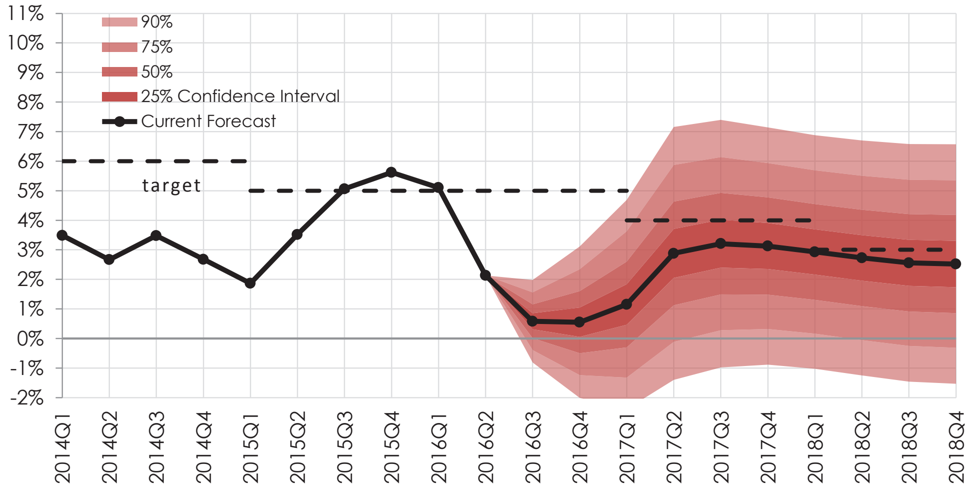


Source: National Bank of Georgia

Annual inflation fell in the second quarter of 2016 and reached 1.1% in June 2016. The undershooting of inflation from the NBG's target of 5% was mainly due to weak aggregate demand, lower inflation expectations and a stronger-than-expected transmission of international oil and food price drops into domestic prices. In addition, the abatement of the base effect also contributed to the downward trend of inflation that began this year. In particular, the liability dollarization and lari exchange rate depreciation that occurred in 2015 as a result of external disturbances made some companies pass their increased debt-service burden onto consumer prices. This one-time increase in prices that occurred last year is gradually being phased out from the annual inflation figure this year.

According to the forecast, **in the following quarters inflation** is expected to fall moderately and remain below the target level. However, it will start gradually increasing by the end of the year and will stabilize around the target in the medium term (see Figure 1.2). The inflation target for 2017 is 4% and is 3% from 2018 onwards. The main factors behind the below-target inflation are weak aggregate demand, decelerated inflation expectations and lower imported inflation, the latter being a reflection of low global food and oil prices as well as the depreciated currencies of Georgia's main trading partners.

Figure 1.2 Headline CPI Inflation



Source: National Bank of Georgia

The forecast is largely dependent on exogenous factors affecting the market and contains **risks in both upward and downward directions**. The main risks still stem from the external sector. In particular, if the economic conditions in trading partner countries deteriorate or are transmitted to Georgia more than is expected, then the actual performance of the economy would be worse than the baseline projection, due to lower inflows. On the other hand, if the economies of partner countries are strengthened and/or the amount of foreign direct investments are greater than expected due to improved investor sentiment, then the performance of the economy would be better than currently forecast. Another source of uncertainty for the forecast is the amount of fiscal stimulus. If this is stronger than incorporated into the baseline scenario, it will cause actual inflation to be higher than current projections, and vice versa if weaker than expected.

At the Monetary Policy Committee (MPC) meeting of 27 July 2016, it was decided to lower the refinancing rate by 25 basis points to 6.75%. The NBG is continuing the gradual normalization of its monetary policy stance against the backdrop of weak aggregate demand and lower expected inflation; however, it also takes into account its effect on the financial markets. Based on current data and assumptions, the baseline forecast implies cutting the monetary policy rate to 6% in the medium run. The most important assumption of this forecast is that there will be no further pressure on the lari exchange rate from the foreign sector and thus lower inflation and its expectations, alongside economic growth, should make the lari exchange rate strengthen in the medium and long term.

The forecast of the monetary policy rate is not a promise made by the National Bank of Georgia. Rather, it is only the expected trajectory of the policy rate, assuming that all exogenous factors incorporated into the forecast materialize as expected. Further monetary policy moves will depend on the expected dynamics of the inflation rate, the factors influencing it, and economic activity in general.

2. Macroeconomic Forecast

2.1 EXTERNAL SECTOR OVERVIEW

Economic activity remains weak in the region. This was mainly a consequence of the economic slowdown of raw material exporting countries resulting from a protracted period of reduced commodity prices on international markets. In addition, geopolitical risks, which initially stemmed from the military conflict in the eastern part of Ukraine, remain significant. These have had a negative impact on the rest of the region's export revenues, remittances and investments. The Georgian economy also received a negative shock through this channel.[1]

In February, the price of oil began to stabilize because of a variety of factors. This gave a positive charge to the oil exporting countries of the region. The latest data revealed that Russia's economic decline has slowed, while the depreciation pressure on the local currency softened. In addition, in June, the US Federal Reserve's decision to keep interest rates unchanged heightened expectations of slower monetary policy tightening and left long-term interest rates at low levels. It thus became likely that this trend would weaken the US dollar globally and further soften depreciation pressure on the local currencies of the region. However, so-called Brexit factors[2] spawned additional risks. In particular, in light of deteriorating expectations, it became likely that the EU's economic recovery process would slow, which might hurt commodity prices and aggregate demand. Nevertheless, any Brexit-related negative effects on the countries of the region will be moderate, assuming that a massive European and British outflow of capital does not take place, since investors already cut portfolio and direct investments in the region last year due to the sanctions on Russia.

In the first quarter of 2016, **Russia's** GDP decline (-1.2%) was less than expected. Currency depreciation contributed in part to the economic recovery, but the main factor was the upward trend in oil prices since the beginning of the year.[3] The International Monetary Fund (IMF) estimates of Russia's 2016 GDP growth have slightly improved, with the annual decline expected to average 1.2% instead of 1.5%. Nevertheless, the Russian economy still remains vulnerable to significant risks (including political ones). According to the same IMF estimates, a positive GDP growth rate will only be achieved in 2018 (1%). As for inflation, the annual forecast for 2016 was reduced to 8.4% from 6.6% on average.

Ukraine's economy has stabilized after a 2-year slump. GDP growth in the first quarter of 2016 became positive, which was mainly due to the base effect. De-escalation of the military conflict in the country and a relatively stable environment contributed to the preservation of the positive trend in the second quarter of the year. In particular, industrial production indicators improved, which were followed by significant structural reforms and the initiation of 1 billion US dollars of financial assistance from the US.[4] Ukraine is expected to receive an additional tranche from the IMF to support structural reforms. The current forecast for Ukraine's GDP growth in 2016 remains unchanged and stands at 1.5%, and for 2017 it is 2.5%.[5]

In the first quarter of 2016, **Turkey's** annual GDP growth slightly slowed, but it still reached a solid figure of 4.8%. In contrast to a reduced inventory, domestic consumption and exports increased. The main challenge facing Turkey remained geopolitical risks and security problems, which negatively affect business sentiment. In addition, at the end of 2015 the Russian sanctions imposed on Turkish tourism products and services put additional pressure on the current account.[6] The World Bank's

1 Press Release: IMF Staff Statement at the End of a Review Mission to Georgia, IMF, December 2015.

2 Brexit refers to the process of the United Kingdom exiting the European Union.

3 "Russia: Adjusting to Lower Oil Prices", IMF Survey Interview, July 2016.

4 In May this year, the Ukrainian parliament approved a package for the reform of the judiciary.

5 International Monetary Fund (IMF), WEO, April 2016.

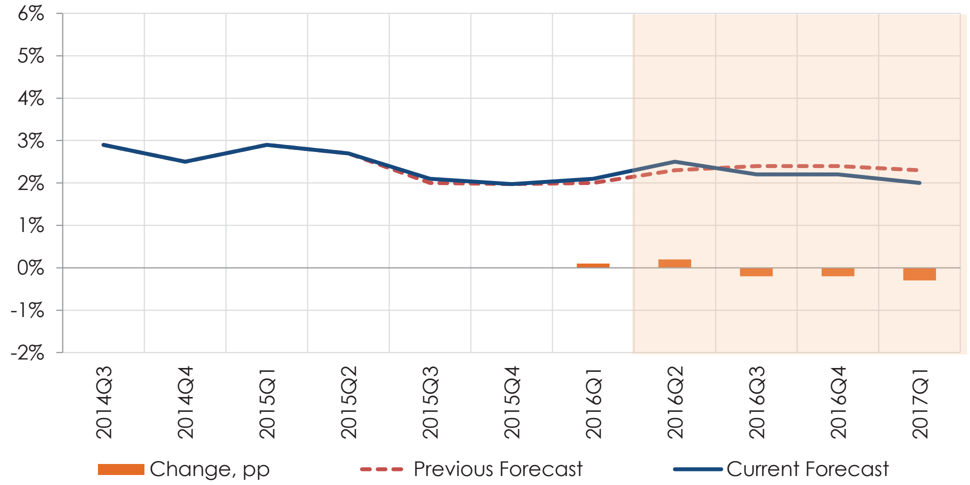
6 However, according to recent reports, political tension between the two countries has eased and expectations are positive in this regard.

estimates of Turkey's 2016 GDP growth forecast remain unchanged at 3.5%.[7]

Oil prices drop significantly affected **Azerbaijan**'s economy last year, which grew by only 1.1%. The 50% depreciation of the national currency at the end of 2015 strongly undermined consumer and business sentiment. The IMF estimates of Azerbaijan's GDP growth in 2016 stand at 3%, while inflation is expected to reach 13%. **Armenia**'s economy grew by an annual 4.4% in the first quarter of the year, which is a pretty solid indicator that was mainly helped by industry and the service sector. However, because of the downturn of commodity product prices (of metal, in particular) and the shaky Russian economy (from which there are major export revenues, investment and remittances inflows), Armenian economic activity is expected to grow only moderately by 2% in 2016.

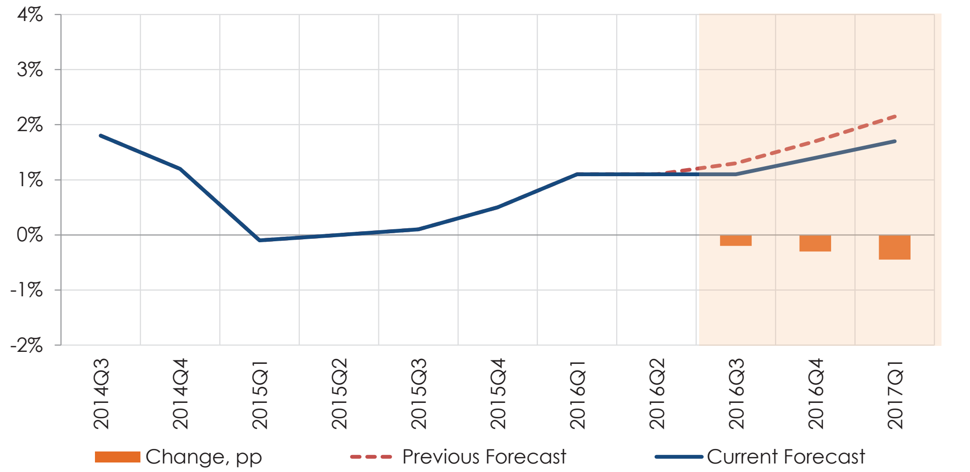
The **US** economy grew more than expected in the first quarter of 2016 (2.1% y/y) – a result of higher than expected exports and investment spending. However, the data also showed that economic growth slowed compared to previous years, which was a result of setbacks in the energy sector that were affected by lower oil prices and inert consumer spending. Against this background, the IMF lowered the US growth forecast for 2016 to 2.2% (from 2.4%).[8] The forecast for 2017 was maintained at 2.5%. Based on the significant impact of the UK's withdrawal from the European Union, the IMF also lowered its 2016 forecast for the eurozone economy from 1.7% to 1.6%. The IMF expects that this will have a negative impact on demand, confidence and financial markets in the euro area, as well as on countries involved in trade with the currency union.[9] Inflation expectations remain below the European Central Bank's target rate. The GDP growth forecast for 2017 decreased from 1.4% to 1.5%.

Figure 2.1 U.S. Real GDP Annual Growth



Source: Bureau of Economic Analyses; Bloomberg.

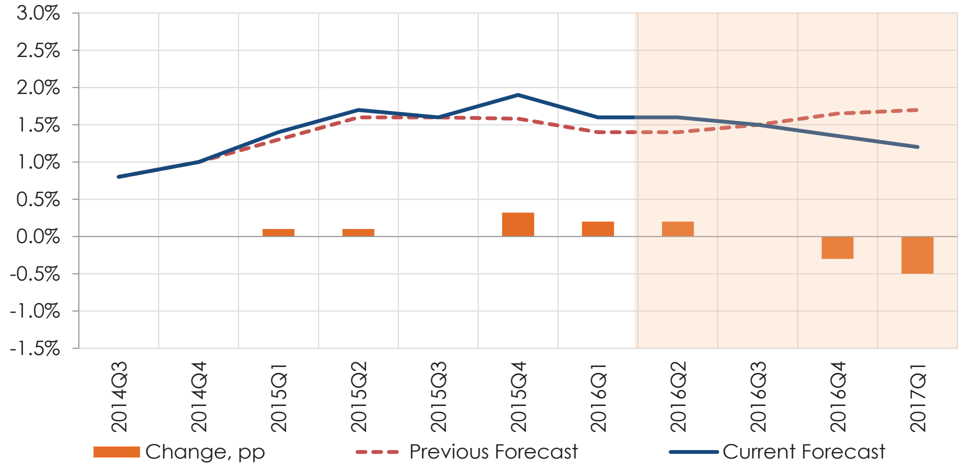
Figure 2.2 U.S. CPI Annual Inflation



Source: Bureau of Economic Analyses; Bloomberg.

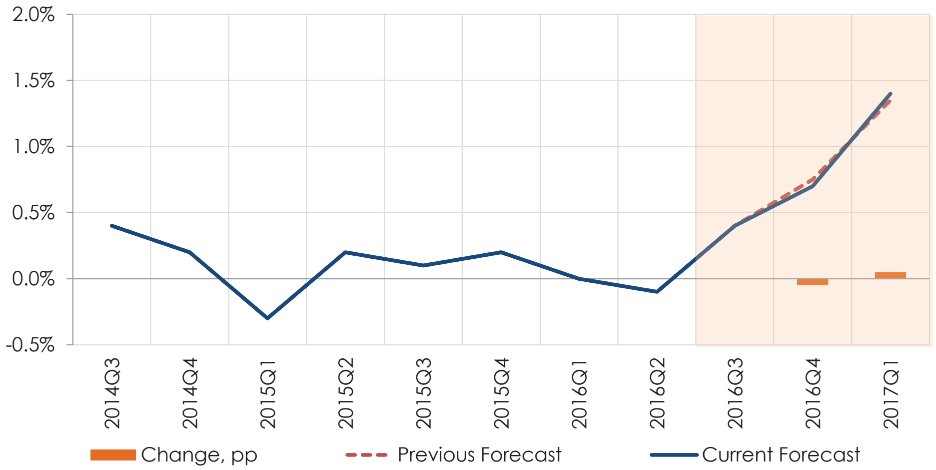
7 Turkey Regular Economic Note, World Bank, July 2016.
8 IMF WEO, July 2016 Update.
9 IMF Country Report No. 16/219.

Figure 2.3 Eurozone Real GDP Annual Growth



Source: Eurostat; Bloomberg.

Figure 2.4 Eurozone CPI Annual Inflation



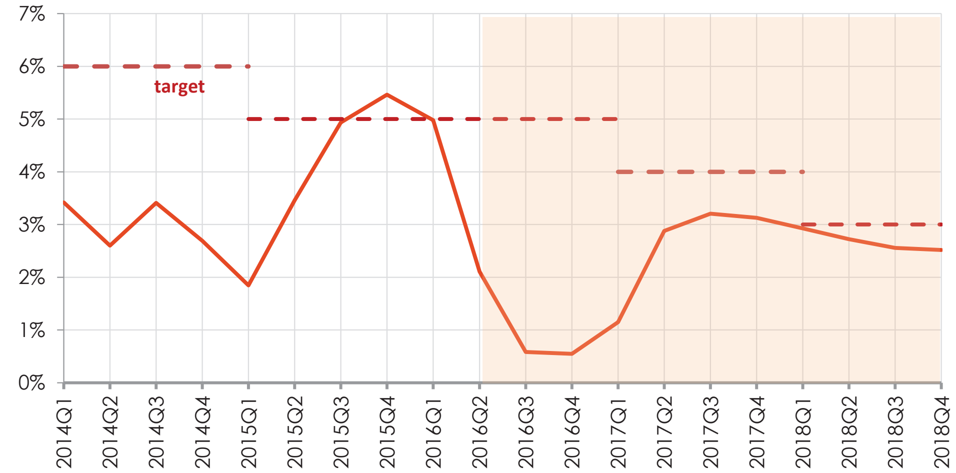
Source: Eurostat; Bloomberg.

In June, the Federal Reserve's decision to keep interest rates unchanged heightened expectations of slower US monetary tightening and left long-term interest rates at low levels. The decision was based on recent weak employment indicators, the lack of productivity growth and a lower than expected inflation trend. It should be noted that the pace of tightening is likely to slow following the so-called Brexit, especially if the US dollar strengthens and uncertainty increases. The European Central Bank has maintained its commitment to step in if necessary and broaden the accommodative monetary policy to avoid problems caused by Brexit. As for the countries in the region, in recent months the Armenian and Ukrainian central banks, amid a declining risk of inflation, reduced the monetary policy rate to support economic activity.

2.2 MACROECONOMIC FORECAST

The annual inflation rate in June 2016 declined more than expected and amounted to 1.1%. Inflation is thus below the 5% target of the National Bank of Georgia (see Figure 2.5), which is mainly a consequence of weak aggregate demand, lower inflation expectations, the stronger-than-expected transmission of international oil price drops into domestic petrol prices, and falling prices for domestic agricultural products. In contrast, in 2015 inflation had an increasing trend that was largely driven by the higher intermediate costs of firms, resulting from the lari depreciation and increased debt service burden on foreign currency loans. In addition, the depreciation of the lari exchange rate translated into higher prices on imported durable goods, which contributed to higher consumer prices. However, at the same time, the increase in inflation was dampened by weak aggregate demand and lower food and oil prices on international markets.

Figure 2.5 Headline Inflation

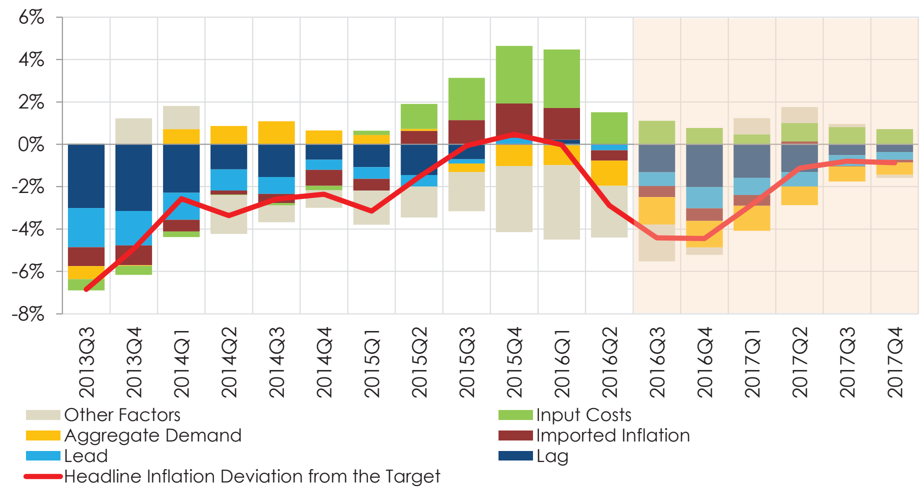


Source: National Bank of Georgia

According to the **forecast, inflation** is expected to fall moderately and remain below the target level in the following quarters. It will subsequently stabilize around the target in the medium term (see Figure 2.5). The inflation target for 2017 is 4%, and is 3% from 2018 onwards.

The below target inflation level in the following quarters will result from both weak aggregate demand (relative to the economy's potential) and lowered inflation expectations, as was the case in the second quarter of 2016 (see Figure 2.6). It is expected that in 2016, as in the previous year, demand will be lower than the economy's potential and this will thus put downward pressure on inflation. Against this, moderate increases in commodity prices next year and the abatement of the base effect caused by the previous decline of prices, will help inflation return to the target level. According to the forecast, which takes all of the above mentioned factors into account, in the following quarters inflation will be below the target. However, it will subsequently reach the target in 2017, supported by food and oil prices stabilizing at their expected levels and by a gradual recovery of aggregate demand.

Figure 2.6 Inflation Deviation From Target And Its Decomposition[10]



Source: National Bank of Georgia

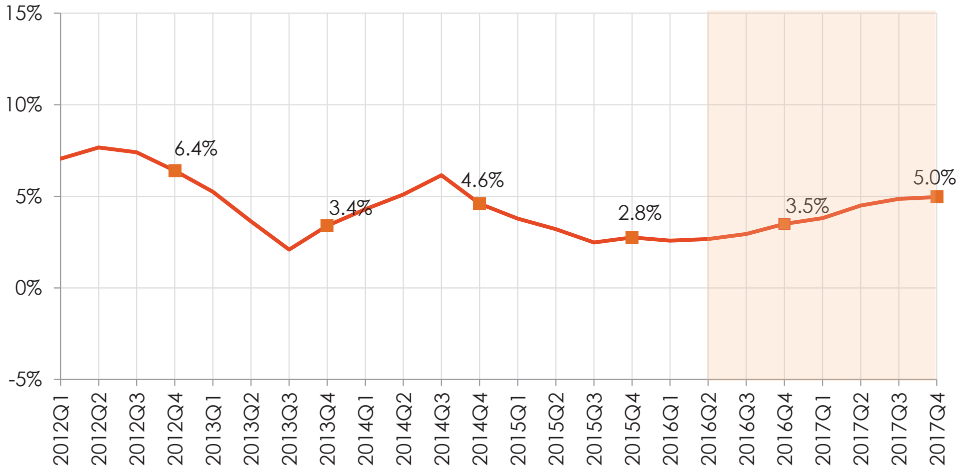
There are **risks associated with the inflation forecast** in both directions. If last year's depreciation of the currencies of Georgia's main trading partners is reversed, this would strengthen the transmission of the already-high inflation rates of those countries to Georgia, which could contribute to temporarily higher imported inflation. There is also some uncertainty surrounding food and petrol prices, both of which have substantial weights in the consumer basket and are mostly supply driven. The

10 In the figure, positive values for the bars indicate the above-equilibrium values of variables that have upward pressure on inflation and vice versa for the negative values.

baseline forecast assumes that international food and oil prices will not increase sharply. Therefore, if they turn out to be higher than expected, it would imply higher-than-forecasted inflation in Georgia. On the other hand, a greater-than-expected depreciation of the currencies of Georgia's main trading partners and/or a stronger-than-expected transmission of low food and oil prices on international markets into domestic prices could contribute to lower inflation than is currently forecast. There is also some uncertainty surrounding economic activity, which in turn also depends on the amount of fiscal stimulus. If this is weaker than expected, it will cause actual inflation to be lower than current projections, and vice versa if stronger than expected.

Real GDP growth was consistent with previous forecasts and amounted to 2.6% in the first quarter of 2016, while, according to preliminary data, this stood at 3.1% in the second quarter of 2016 (see Figure 2.7). Economic activity during this period was driven by domestic demand. In particular, investments increased against the backdrop of fiscal stimulus measures and better investor sentiment, which helped aggregate demand. In sectoral terms, a significant contribution was made by the construction sector, where, in addition to the weight carried by the Baku-Tbilisi-Ceyhan pipeline project, other private construction and public infrastructure projects were important. After a very strong increase in 2013, net exports made a negative contribution to GDP growth in 2014. This was caused by considerably weakened foreign demand and an increase in imports due to higher domestic demand. This imbalance started to improve in the second quarter of 2015 following the depreciation of the Georgian lari against the US dollar. The reduction in imbalances was driven by the process of import correction and by a softening of the negative growth rate of exports. Notwithstanding this improvement, as was expected, net exports are estimated to have made a negative contribution to economic growth because of external disturbances (see Figure 2.8). The deviation of economic activity from its potential level worsened in the first half of 2015 and, according to current estimates, the output gap is likely to remain in the same range in 2016 as well.

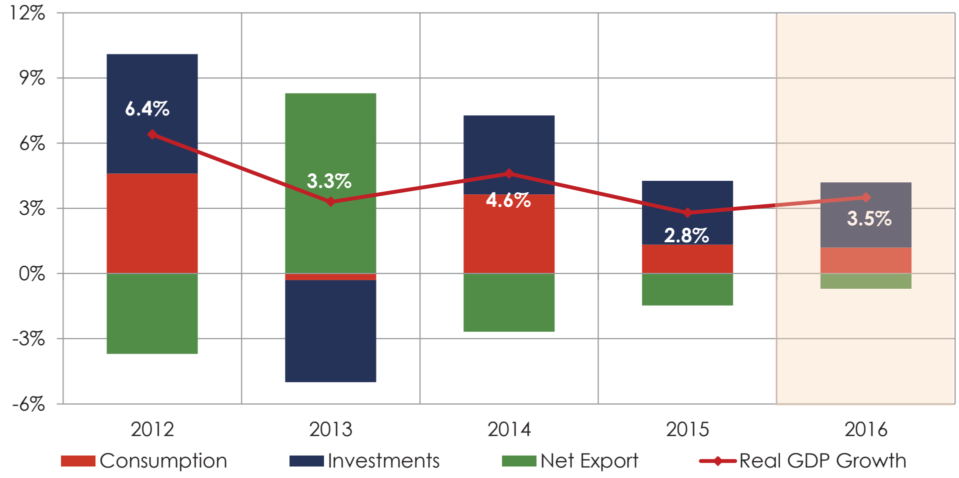
Figure 2.7 Real GDP Growth (Annual Growth Of Last Four Quarters)



Source: National Bank of Georgia

According to the **GDP forecast**, the growth rate in 2016 is expected to be around 3.5% (see Figure 2.7). Increased fiscal stimulus, alongside a normalization of monetary policy, will support lending. This, in turn, will help investment and consumption growth rates. On the other hand, the unfavorable trend in the foreign sector is expected to affect net exports, which will continue to make a negative contribution to GDP growth in 2016 (see Figure 2.8). Net exports are negatively influenced by the adverse political and economic conditions in Georgia's trading partners. These are reflected in both weak foreign demand for Georgian exports and declining remittances. However, such negative spillovers from the foreign sector are partly offset by reduced commodity prices on international markets – a positive factor for both the current account and other sectors of the economy – and by the correction of the real effective exchange rate last year.

Figure 2.8 Components Of Real GDP Growth



Source: National Bank of Georgia

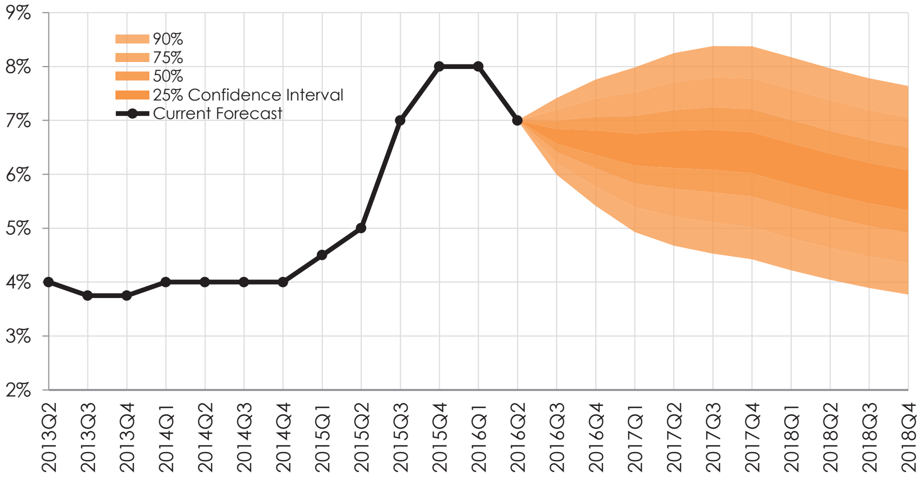
When analyzing **risks to the GDP forecast**, the foreign sector clearly stands out. If, against the backdrop of geopolitical tensions, the economic conditions in Georgia's trading partner countries worsen and/or are transmitted to Georgia to a greater extent than is expected, then actual GDP growth will be lower than currently forecast. If, on the other hand, free trade prospects with Europe and/or investment projects have a greater-than-expected positive impact on economic activity or business confidence, then GDP will be higher than forecast.

Reduced foreign currency inflows in 2014-2015, occurring against the backdrop of external shocks, were more than balanced by reduced imports, which made the **current account deficit** in the first quarter of 2016 decline by 19.4% year-on-year. Despite this, the current account deficit-to-GDP ratio was slightly increased because of a depreciation-induced fall in US dollar-denominated GDP. As for registered exports of goods, in the first half of 2016 exports (in USD dollars) fell by 12.3%, while imports (excluding grant-financed hepatitis C medications) fell by 7%. This made the goods trade balance improve by an annual 4.7%. According to the current forecast, the current account deficit is expected to improve to 11.7% of GDP in 2016. It is worth noting that the abatement of the external imbalance points to a softening of external shocks and contributes to macroeconomic stability.

According to the current forecast, the current account is expected to recover from the worsening seen in 2015 and to improve in the medium term, being supported by increased exports of goods and services, including tourism.

The ultimate goal of the National Bank is price stability and the most efficient way of achieving this to date is inflation forecast targeting. For this purpose, the NBG uses its monetary policy rate to ensure that the inflation forecast is at the target level in the medium term. Therefore, each inflation forecast implies a **corresponding interest rate forecast**. Figure 2.9 shows the forecasted trajectory of the monetary policy rate that is consistent with the macroeconomic forecast presented above, which implies a gradual reduction in the policy interest rate in the medium term as the external shock gradually dies out. This forecast of the policy rate is mainly implied by lower inflation expectations and weak aggregate demand; however, the assumption of no further pressure on the exchange rate from the foreign sector is also important for the forecast. Hence, lower inflation and its expectations, alongside economic growth, should strengthen the lari exchange rate in the medium and long run. This process of monetary policy normalization means cutting the policy rate until its long-run neutral level has been reached. According to current estimates, the long-run neutral level of the monetary policy rate is 5-6%.

Figure 2.9 Forecast of the Monetary Policy Rate



Source: National Bank of Georgia

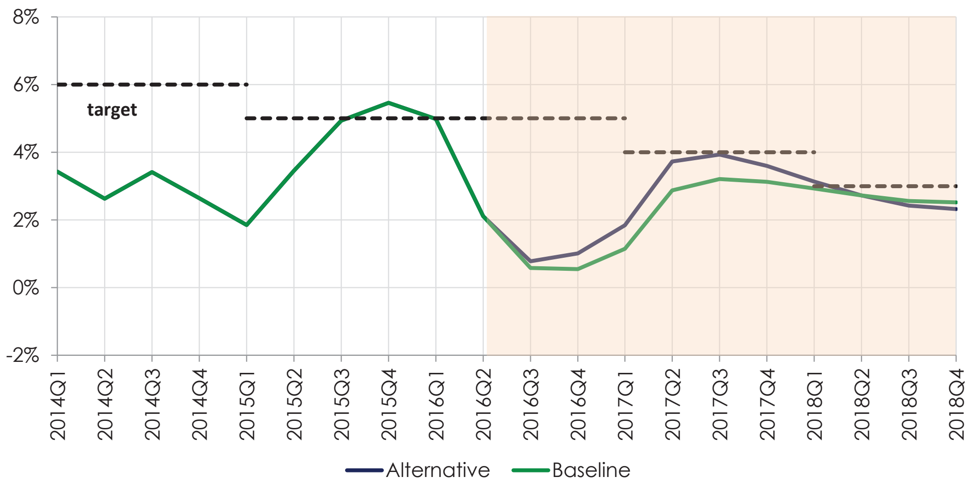
Finally, it should be clearly stated that the forecast of the monetary policy rate is not a promise by the National Bank of Georgia. It is only the expected trajectory of the policy rate, assuming that all the exogenous factors incorporated into the forecast materialize as expected. Despite this uncertainty, which is characteristic of any forecast, it still contains valuable information regarding the expected trajectory of short-term interest rates, which long-term rates largely depend on.

2.3 ALTERNATIVE FORECAST SCENARIO

The alternative forecast scenario considers a situation in which the negative external shock continues longer than expected. In particular, the scenario assumes that the existing geopolitical conditions in the region will cause weaker economic conditions in Georgia's trading partner countries than expected and that these negative effects will be transmitted to the domestic economy. As a result, the alternative scenario implies a less-than-expected appreciation of the GEL. Under this scenario, inflation will be slightly higher (see Figure 2.10) and economic growth slower (see Figure 2.11) than in the baseline scenario.

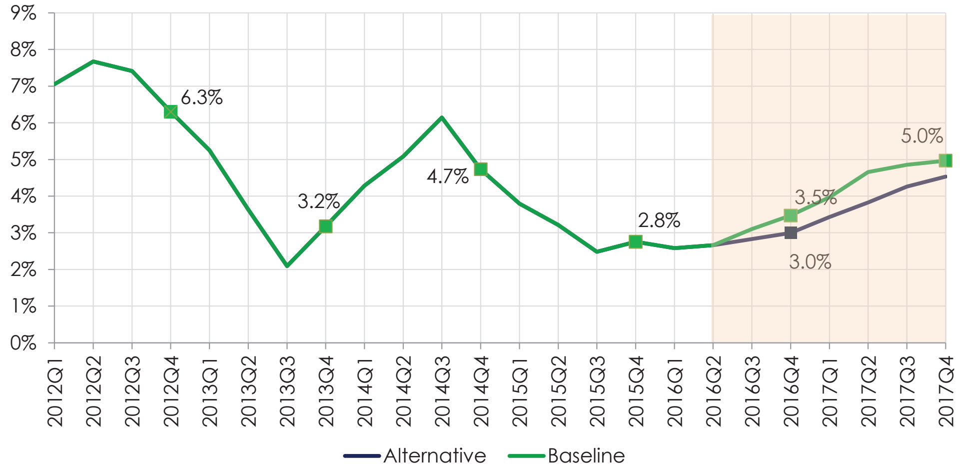
In the alternative scenario, the monetary policy rate will be set at a relatively high level, which will neutralize the inflation expectations. As a result, under this scenario inflation in 2016 will be slightly higher compared to the baseline scenario (see Figure 2.10).

Figure 2.10 CPI Inflation According To Baseline And Alternative Forecasts



Source: National Bank of Georgia

Figure 2.11 Real GDP Growth According To Baseline And Alternative Forecasts (Annual Growth Of The Last Four Quarters)

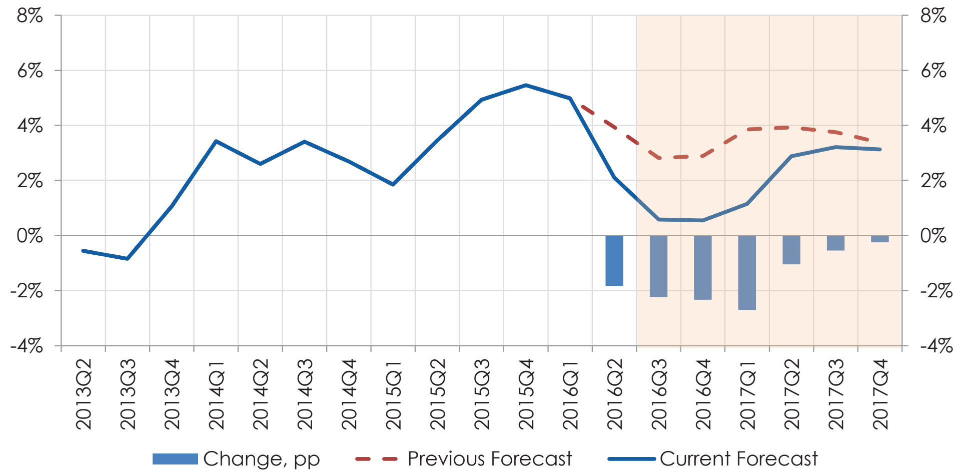


Source: National Bank of Georgia

2.4 COMPARISON WITH THE PREVIOUS FORECAST

Compared to the previous quarter's forecast, the inflation forecast for upcoming quarters has been revised downwards (see Figure 2.12). This is largely due to the reduced inflation expectations caused by the GEL nominal effective exchange rate appreciation and the greater than expected transmission of decreased oil and food prices in international markets to headline inflation. As a result, according to the current forecast, the inflation rate in the next quarters will temporarily lie below the target before returning to the target level by the end of 2017.

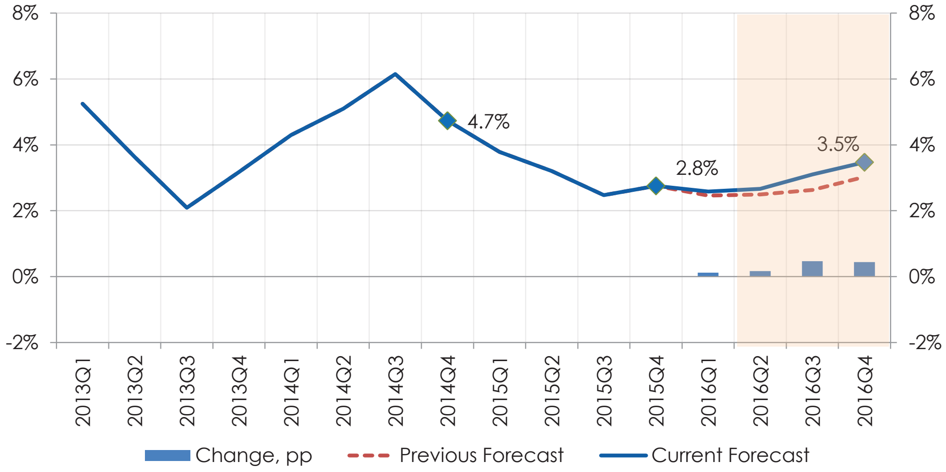
Figure 2.12 Change In The Forecast Of Headline Inflation



Source: National Bank of Georgia

As for economic activity, the real economic growth forecast for 2016 has been revised upwards (see Figure 2.13). The main reason for this revision is the increased direct investment and aggregate demand that followed fiscal stimulus and improved investor sentiment. The expected growth of the real economy in 2016 is 3.5%.

Figure 2.13 Change in the Forecast of Real GDP Growth (Annual Growth of the Last Four Quarters)



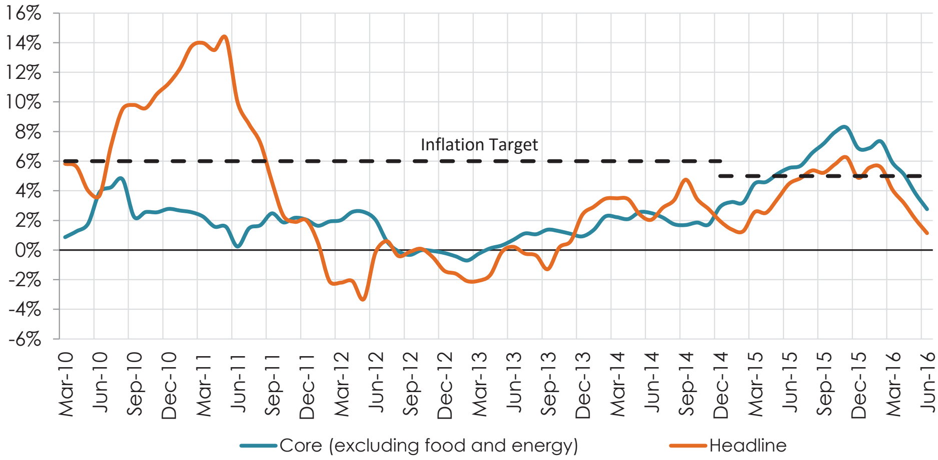
Source: National Bank of Georgia

3. Consumer Prices

Compared to the previous quarter, by the end of the second quarter of 2016 the headline inflation rate declined and amounted to 1.1%, which was below the NBG's target of 5% for 2016. Against the backdrop of reduced headline inflation, core inflation[11] has also decreased; however, it remains higher than headline inflation and stands at 2.8% (see Figure 3.1). Lower headline inflation was determined by the decline of oil prices in international markets.

‹‹ By the end of June 2016, headline inflation declined more than expected and stood at 1.1%. The gap from the NBG target thus increased.

Figure 3.1 CPI And Core Inflation



Source: GeoStat

In terms of the supply side factors that put upward pressure on inflation, the growth of intermediate costs is worth noting. Higher intermediate costs of firms, resulting from the increased debt service burden on foreign currency loans, was the main factor contributing to higher inflation in 2015. However, the exchange rate appreciation observed over the last period had a positive effect on intermediate costs and the upward pressure on inflation lowered as a result.

‹‹ Upward pressure on inflation from the growth of intermediate costs lowered.

During 2015 and at the beginning of 2016, the prices of most products and services included in the consumption basket rose due to the exchange rate depreciation and increased inflation expectations. As a result, a surge in inflation perceptions was observed. This tendency changed by the end of the first half of 2016. As the development of the CPI diffusion index clearly shows, the share of products and services in the consumer basket with increasing prices started to decline. Moreover, the prices of most components in the basket decreased by the end of June (see Figure 3.2).

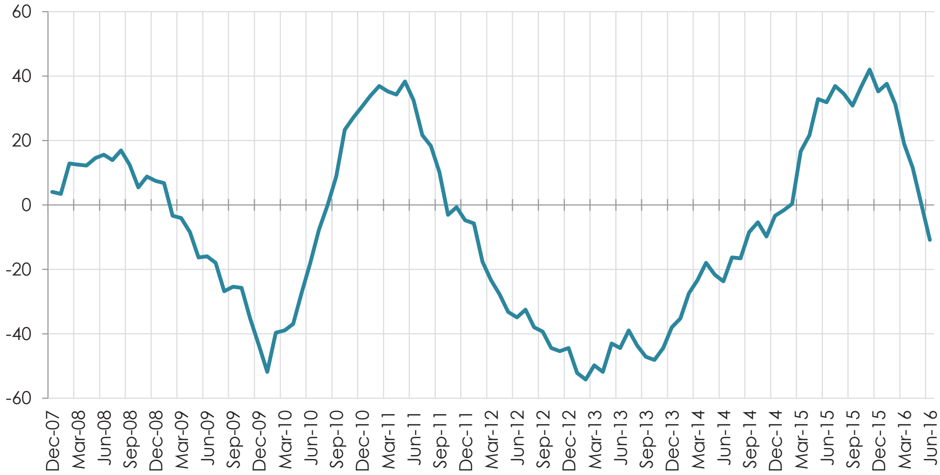
The growth of administrated utility prices – in particular the gradual increase of electricity tariffs that took place in August and September 2015 – put upward pressure on the overall inflation rate. The electricity tariff increased by an annual 27.5% in March; contributing approximately 0.4 percentage points to headline inflation (see Figure 3.2).

An important factor contributing to the reduced inflation rate is the base effect. In 2015, the increase in excise taxes on alcoholic beverages and the rise in prices of durable consumer goods (of household appliances, in particular) due to the exchange rate depreciation, had an important effect on prices. As a result, the inflation rate increased sharply. Consequently, with the exhaustion of this base effect in 2016, annual inflation declined.

‹‹ UAn important factor contributing to the reduced inflation rate is the exhaustion of the base effect.

11 Core inflation is the y-o-y change of the consumer price index calculated without food and energy products.

Figure 3.2 Consumer Prices Diffusion Index



Source: GeoStat and National Bank of Georgia

The low level of oil prices on international markets have seen fuel prices decline in Georgia. Taking into account the high share of oil products in the consumer basket, this drop had a significant impact on the overall price level. By the end of the second quarter of 2016, the rates of decline on diesel and petrol amounted to 22% and 17.8% respectively; contributing approximately -1.1 percentage points to headline inflation (see Figure 3.3).

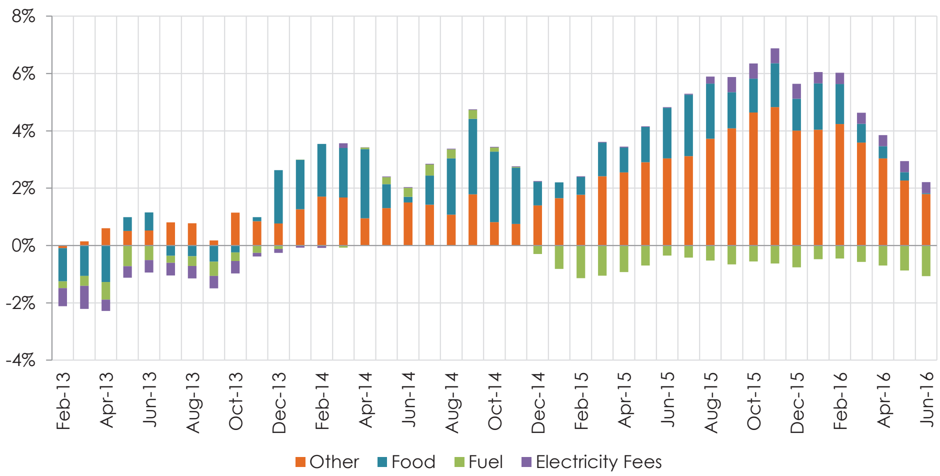
‹‹ The decline in oil prices continues to put downward pressure on the inflation rate.

By the end of the second quarter of 2016, the pressure on inflation coming from food prices became minimal. In line with the appreciation of the nominal effective exchange rate, the increase in prices for some food products was lower than expected – a result of the significant exchange rate depreciation in food exporting trading partner countries. In June, the y-o-y growth rate of the overall level of food declined to 0.1%, making a 0.03 percentage point contribution to headline inflation (see Figure 3.3).

The growth of administrated utility prices – in particular the gradual increase of electricity tariffs that took place in August and September 2015 – put upward pressure on the overall inflation rate. The electricity tariff increased by an annual 27.5% in June; contributing approximately 0.4 percentage points to headline inflation (see Figure 3.3). This pressure will be exhausted by the end of the third quarter and, as a result, a further decline in the inflation rate is expected at that time.

‹‹ The growth of administrated prices puts upward pressure on the inflation rate. After the exhaustion of this pressure due to the base effect a further decline in inflation rate is expected.

Figure 3.3 Contribution Of Fuel, Food And Utilities Inflation To Headline Inflation

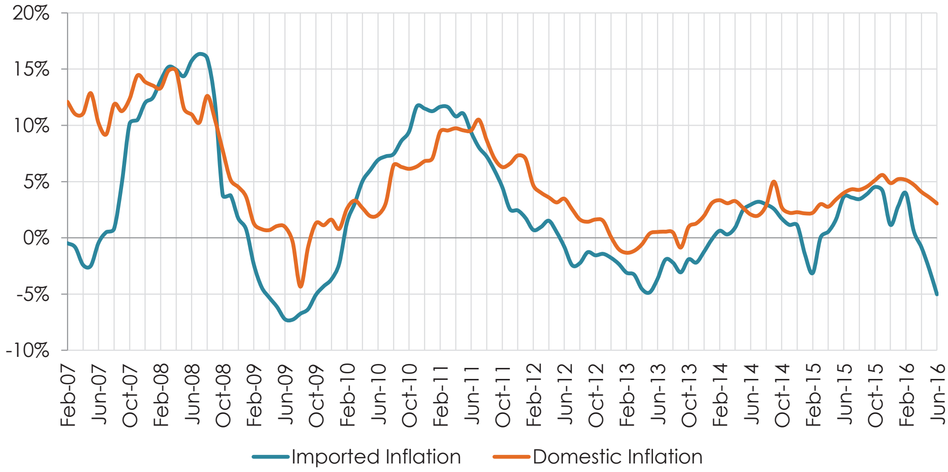


Source: GeoStat and National Bank of Georgia

‹‹ The inflation rate on imported consumer goods decreased considerably and stood at 0.6% by the end of June.

In terms of supply factors, the influence of imported inflation on the overall price level is worth stressing. However, in the first half of 2016, the effective exchange rate started to appreciate as a result of the high depreciation in Georgia's main trading partner countries. This development, accompanied by the aforementioned exhaustion of the base effect, put additional downward pressure on imported prices and resulted in a further decline of the imported inflation rate. In June, imported inflation dropped to -5.0% (see Figure 3.4), contributing approximately -1.2 percentage points to headline inflation.

Figure 3.4 Imported And Domestic Inflation



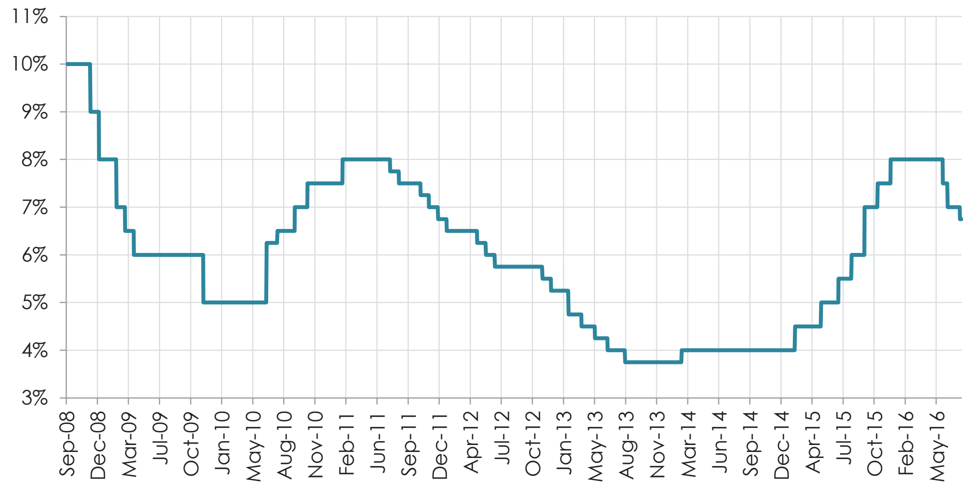
Source: GeoStat and National Bank of Georgia

The lower external demand stemming from economic downturn in Georgia's main trading partner countries has been negatively reflected on the economy of Georgia. Decreased export revenues and remittances have put downward pressure on domestic demand, which has also been curbed by tight monetary policy. Factors weakening external and domestic demand have thus caused a widening of the negative output gap which, in turn, puts downward pressure on the inflation rate.

4. MONETARY POLICY

The transmission of external shocks to the Georgian economy was strong in 2015. Worsened economic conditions in Georgia's main trading partners had a negative impact on both domestic and external demand. In line with the depreciation of the nominal exchange rate, pressure on the inflation rate increased through the imports channel. At the same time, given the high level of dollarization in the economy, the depreciation of the lari against the US dollar puts upward pressure on intermediate costs. Each of these factors drove up inflation expectations. In response to the increased expectations, the National Bank of Georgia found it appropriate to tighten monetary policy in order to reduce inflation risks. During 2015, the Monetary Policy Committee decided to gradually increase the refinancing rate by 4.0 percentage points to 8%. This tightening of monetary policy was reflected on the economy. Interest rates on lari denominated loans increased and, as a result, the growth of the credit portfolio declined. This had the effect of weakening aggregate demand and inflation was pushed downwards. Accordingly, in meetings held in February and March 2016, the Monetary Policy Committee (MPC) found it appropriate to leave the policy rate unchanged at 8% since at that stage there was no need for additional monetary tightening to contain inflation expectations.

Figure 4.1 Monetary Policy Rate



Source: National Bank of Georgia

Annual CPI inflation in June dropped more than expected to 1.1%. This decrease was largely due to the expiration of the base effect and a decrease in inflation expectations. Recently, increased investment activity has had a positive effect on economic growth. On the other hand, increased interest rates on lari-denominated loans and the overall weakening of credit portfolio growth rates put downward pressure on aggregate demand and kept economic growth below the potential level. At its meetings in April and May, the Monetary Policy Committee decided to start gradually phasing out the tight monetary policy, which means a reduction of the refinancing rate to the neutral level in the medium term. The MPC thus decided to reduce the policy rate by 100 basis points to 7%.

‹‹ The National Bank started gradual phasing out its tight monetary policy.

The last meeting of the National Bank's MPC was held on 27 July. At that meeting it was decided to continue monetary policy normalization and reduce the refinancing rate by 25 basis points to 6.75%. The current macroeconomic forecast implies a monetary policy rate reduction to 5-6% in the medium term.

‹‹ According to a decision made on 27 July, the gradual phasing out of the tight monetary policy continued and the refinancing rate was reduced to 6.75%.

The inflation rate in 2015 had a growth tendency and was closing on the 5% target value set by the National Bank. The rise in inflation due to increased prices stemming from the exchange rate depreciation was checked by the decrease in global oil and commodity prices. The main factors causing the rise in inflation were increased intermediate costs of production, higher prices on certain imported goods and a growth of administrated prices. By the end of first quarter of 2016, both headline and core (excluding food and energy products) inflation measures declined. The y-o-y inflation rate amounted to 1.1% in June. Against the backdrop of the end of the base effect and appreciation of the nominal effective exchange rate, the upward pressure on prices from intermediate costs declined. At the same time, the sharp drop of specific imported goods prices put downward pressure on the inflation rate.

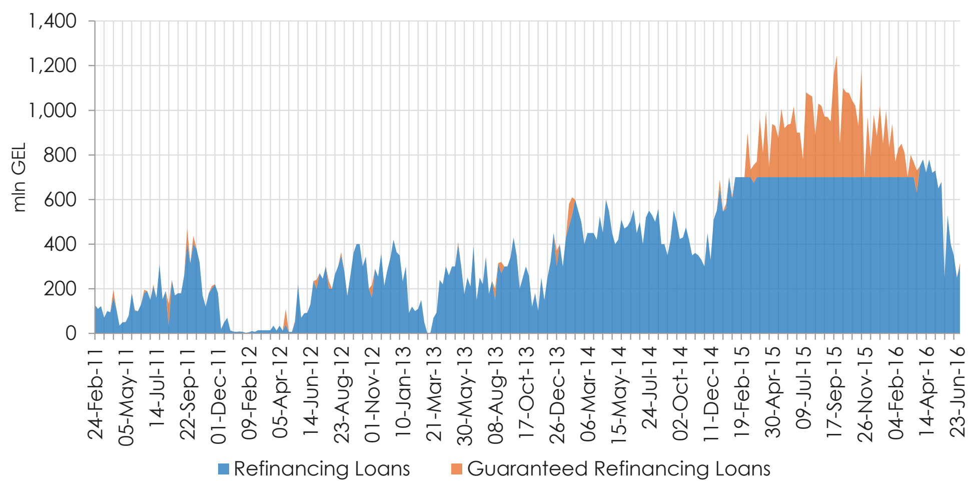
Domestic demand remains weak. According to preliminary information, real GDP growth in the first five months of 2016 was 2.9%. Credit activity growth also decelerated and the growth rate of the portfolio hovers at around 9% (excluding the exchange rate effect).

External demand also remained subdued in the first half of 2016. During the first six months of the year, registered exports fell by 12%, while imports decreased by 7% (excluding one-offs). As for services, the dynamics exhibited a positive development with the annual growth of tourism revenues totaling around 15% in the first half of the year. Remittances statistics improved as well. During the first two quarters, remittances declined by 3% y-o-y, which was a superior indicator compared to previous periods.

According to the current NBG forecast, annual inflation will decrease in the coming quarters, temporarily keeping below the current target value before reaching the target by the end of 2017. However, both upside and downside risks to the forecast remain. Negative risks might arise from the aggravation of external shocks: in particular, a greater-than-expected appreciation of the US dollar and a further weakening of the economies in the region due to lower-than expected oil prices and/or capital outflows. On the other hand, a faster-than-expected reduction of external shocks and/or a sharp recovery of aggregate demand resulting from accelerated investment may have a positive effect on inflation dynamics.

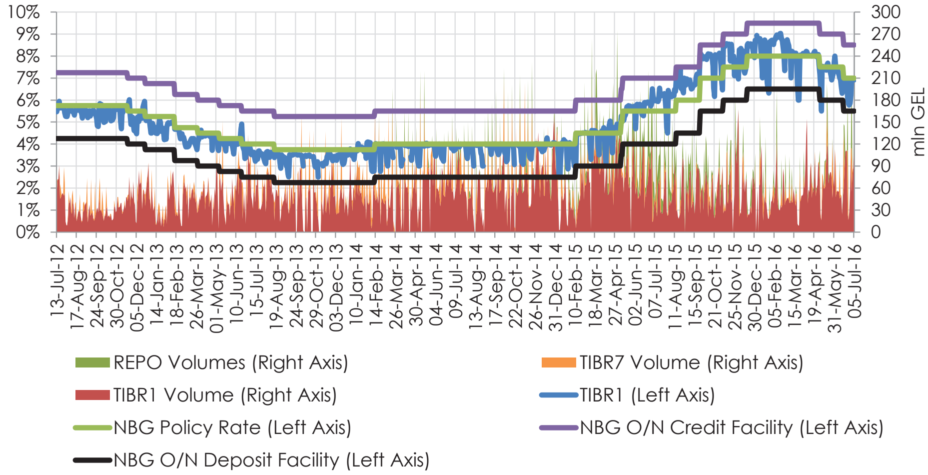
In order to ensure the efficiency of monetary policy, it is important for changes in the monetary policy rate to be reflected on interbank interest rates and to ultimately affect the real economy. With the given level of short-term liquidity in the banking system, commercial banks are capable of raising necessary additional funds through refinancing loans – the main instrument of the NBG. Recently, the NBG has provided short-term liquidity to the banking system via refinancing loan auctions without any restrictions. The banking sector is thus not forced to use the guaranteed refinancing instrument and/or standing facility to get the required liquidity. As a result, interbank short-term interest rates fluctuate around the monetary policy rate

Figure 4.2 Refinancing Loans



Source: National Bank of Georgia

Figure 4.3 Interbank Money Market



Source: National Bank of Georgia

« Short-term interest rates hover around the policy rate.

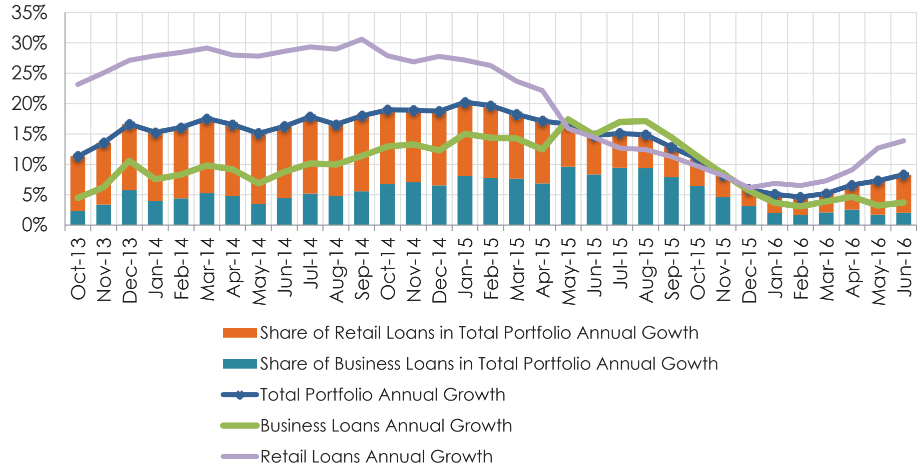
5. Financial Market and Trends

5.1 LOANS

In the second quarter of 2016, the annual growth rate of the loan portfolio increased and, excluding the effect of exchange rate movement, this amounted to 8.3% in June. The growth was mainly caused by the growth of retail loans, whereas the growth rate of business loans decreased. The volume of business loans in the national currency with a floating interest rate did not change significantly in June and their share of total business loans remained 7%. It is expected that the annual growth rate of the loan portfolio will be between 10-15% by the end of the year.

‹‹ It is expected that by the end of this year the annual growth rate of the loan portfolio will be between 10-15%.

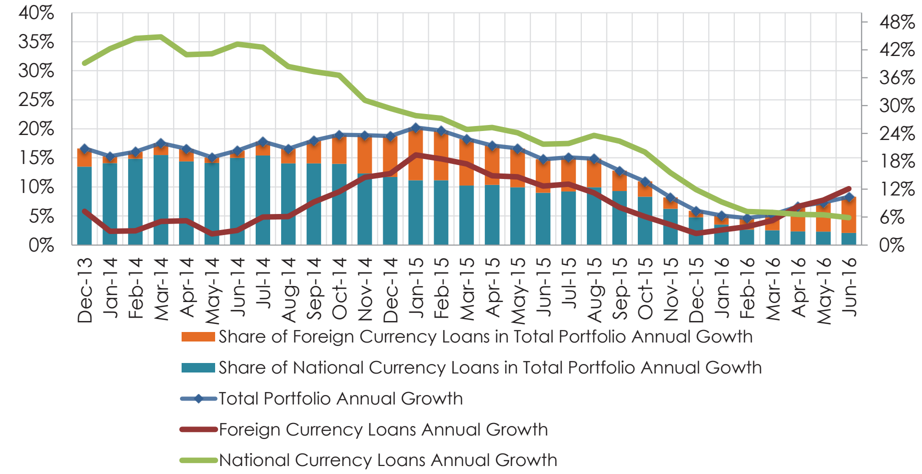
Figure 5.1 Annual Growth Rates Of Retail And Business Loans And Their Contributions To The Growth Of The Loan Portfolio



Source: National Bank of Georgia

In the context of currencies, the growth of the loan portfolio was largely caused by an increase in foreign currency loans. In June, the annual growth rate of foreign currency denominated loans increased to 9.7%, while domestic currency loans increased by 5.9%.

Figure 5.2 Annual Growth Rates Of Domestic And Foreign Currency Loans And Their Contributions To The Growth Of The Loan Portfolio



Source: National Bank of Georgia

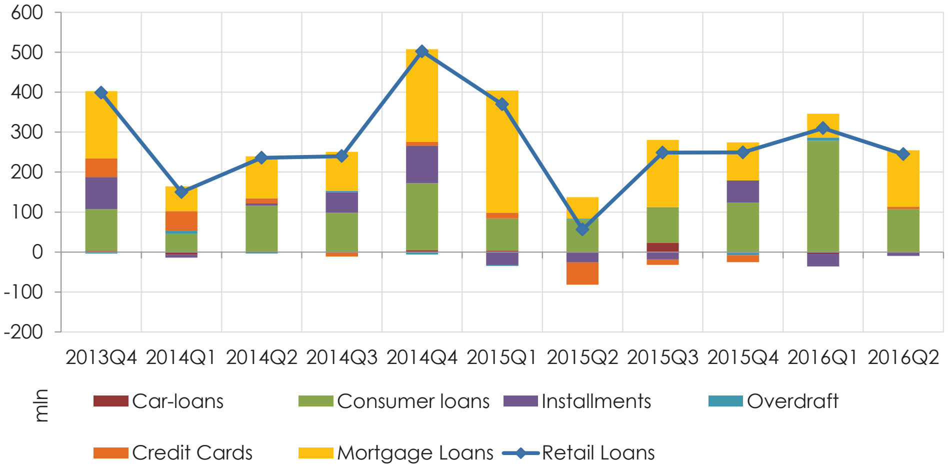
It should be noted that an increase in leverage in foreign currency makes the financial sector more vulnerable to currency shocks and increases financial stability risks. In the second quarter of 2016, the loan larization coefficient decreased by 0.6 percentage points and amounted to 34.8%. De-dollarization is one of the priorities of the National Bank of Georgia. In April, in an effort to incentivize larization, the National Bank reduced the minimum reserve requirement rate for national currency loans from 10% to 7%. At the same time, to mitigate possible risks to future financial stability, the National Bank increased the minimum reserve requirement ratio for foreign currency loans to 20%. It should be noted that the larization of the financial sector will contribute to the appreciation of the exchange rate trend in the long run by decreasing the demand for foreign currency required for payments of foreign currency loans.

‹‹ An increase in leverage in foreign currency makes the financial sector more vulnerable to currency shocks and increases financial stability risks.

‹‹ In order to incentivize larizarion, the National Bank reduced the minimum reserve requirement rate for national currency loans to 7%.

In June, the stock of retail loans increased by 245 million GEL compared to March. In terms of loan products, the amount of mortgage and consumer loans increased by 141 million and 107 million GEL respectively over the previous quarter. The volume of instant loans and credit cards decreased by 2 million GEL. As the latter are mainly used to finance imports, their slower growth reflects reduced demand for imports and facilitates a reduction of demand for foreign currency. According to the credit conditions survey, representatives of the banking sector expect an improvement of demand for retail loans in the next quarter.

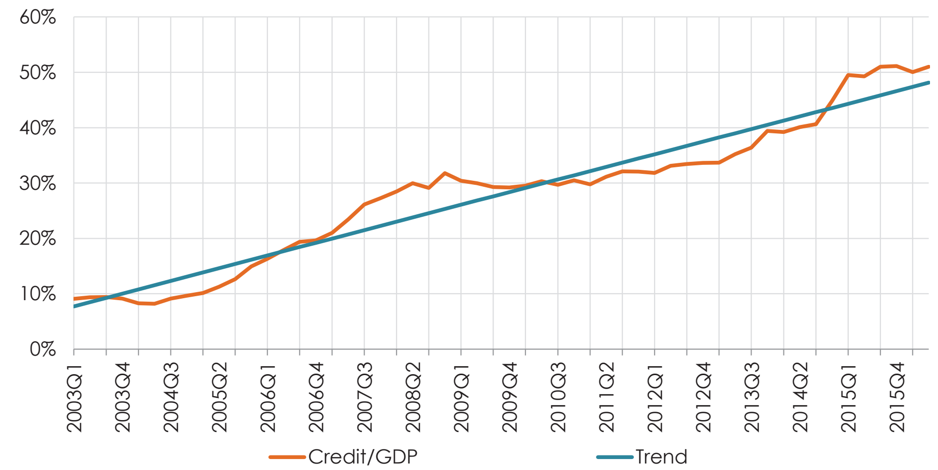
Figure 5.3 Quarterly Growth Of Retail Loans



Source: National Bank of Georgia

In June, the annual growth rate of the loan portfolio to legal entities amounted to 3.2%[12], which was 0.7 percentage points lower than in March. An analysis of business loans by sector reveals that the energy, trade, agriculture and construction sectors

Figure 5.4 Credit To GDP Gap



Source: National Bank of Georgia

12 *Excluding the exchange rate effect.*

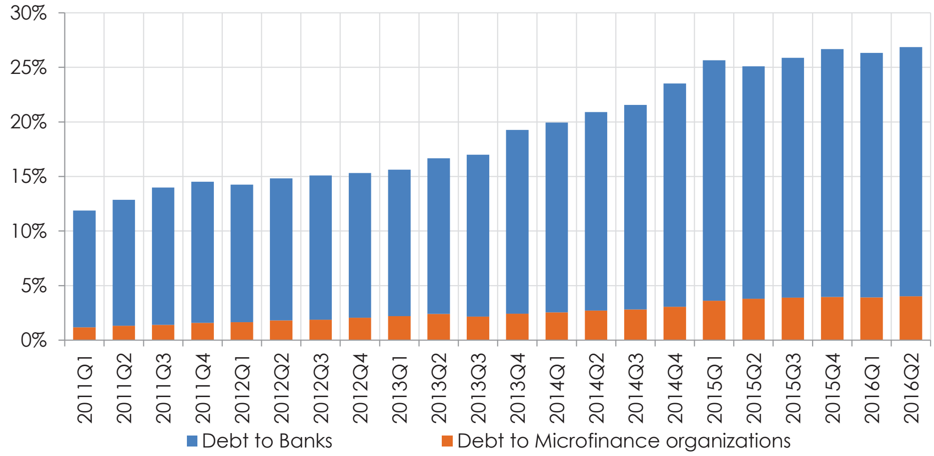
posted growth in terms of credit, while the volume of outstanding loans disbursed to the manufacturing and transport sectors increased only slightly. Representatives of the banking sector expect an improvement of demand for business loans in the next quarter.

Compared to the previous quarter, the credit to GDP ratio[13] increased by 1 percentage point and amounted to 51%. The credit to GDP ratio is currently above the trend[14] by 2.9 percentage points.

In the second quarter of 2016, the individuals' loans to net national disposable income ratio decreased by 1 percentage point compared to the previous quarter and amounted to 25.3%. Debt to commercial banks accounted for 84% of total individuals' loans.

‹‹ Representatives of the banking sector expect an improvement of demand for business loans in the next quarter.

Figure 5.5 Individuals' Debt To Net National Disposable Income Ratio



Source: National Bank of Georgia

Compared to the previous quarter, the share of non-performing loans decreased by 0.5 percentage points in the second quarter of 2016 and amounted to 8%. According to the data from June, the share of non-performing loans in the national currency increased by 0.1 percentage point compared to March, amounting to 5.8%. The share of non-performing foreign currency loans decreased by 0.7 percentage points and equaled 9.4%. The amount of loans written off in the second quarter amounted to 78 million GEL, which caused the share of non-performing loans to decrease by 0.5 percentage points.

5.2. INTEREST RATES AND CREDIT CONSTRAINTS

In July 2016, the monetary policy rate decreased to 6.75%. In the second quarter of 2016 interest rates on government securities decreased significantly compared to the previous quarter. This was mainly a result of a decrease in liquidity risk and inflationary expectations .

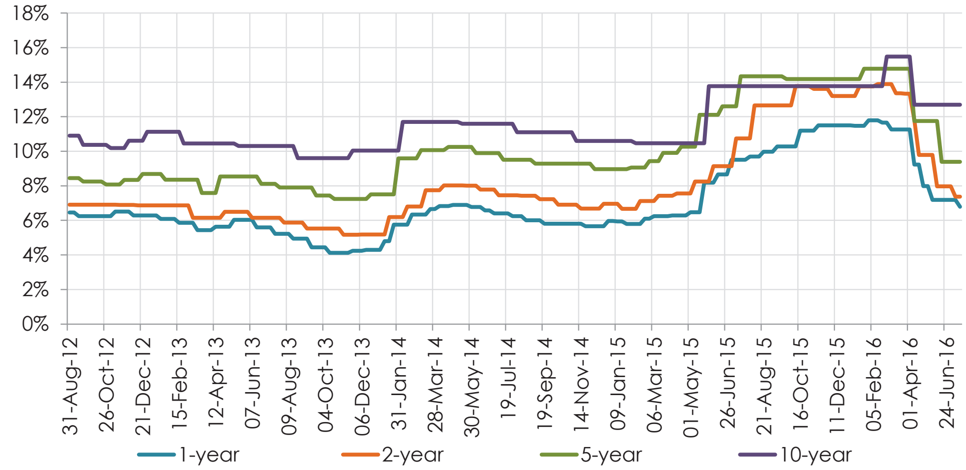
The spread between long-term assets and the monetary policy rate decreased because of lower inflationary expectations, meanwhile the publication of the policy rate trajectory by the National Bank increased belief in a decrease of the monetary policy rate.

‹‹ Compared to the previous quarter, interest rates on government securities decreased significantly as a result of a decrease in liquidity risk and inflationary expectations.

13 The credit to GDP ratio was proposed by the Basel Committee in order to accumulate a capital buffer. Compared to other measures, the credit to GDP gap performed better in forecasting the global financial crisis.

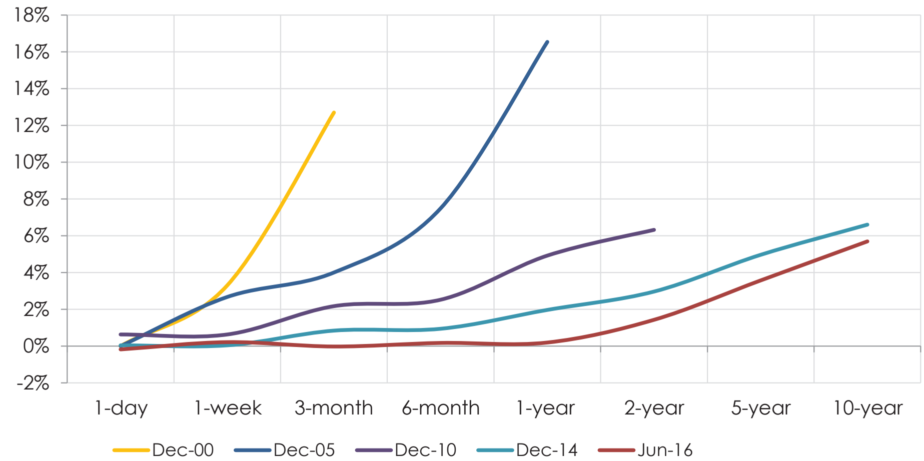
14 An HP filter is used to assess the trend and based on Basel recommendations, lambda is equal to 400,000.

Figure 5.6 Interest Rates On Government Securities



Source: National Bank of Georgia

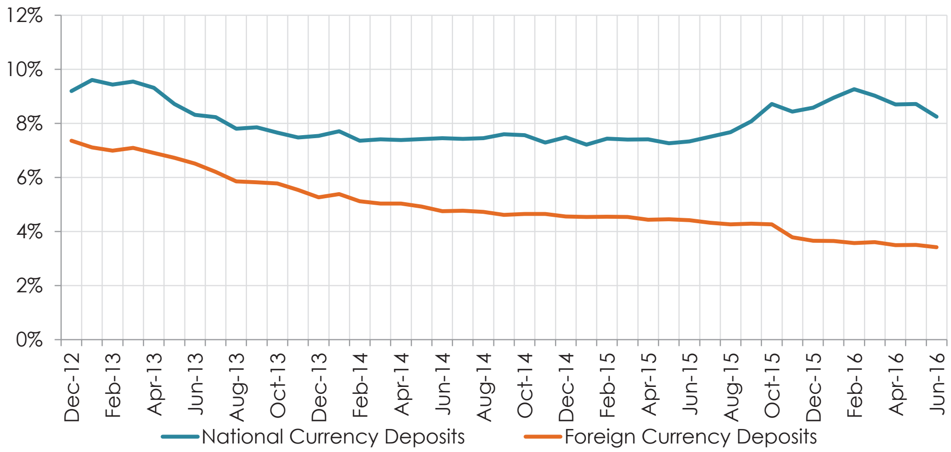
Figure 5.7 Spread Between The Monetary Policy Rate And The Yield Curve



Source: National Bank of Georgia

Compared to the previous quarter, the interest rate on domestic currency deposits decreased by 0.8 percentage points and amounted to 8.2%, while for foreign currency deposits the interest rate decreased by 0.2 percentage points and amounted to 3.4%. The fall in interest rates was caused by a decrease in the monetary policy rate. According to the credit conditions survey, the cost of domestic currency deposits is expected to decrease in the next quarter.

Figure 5.8 Average Interest Rates On Deposits

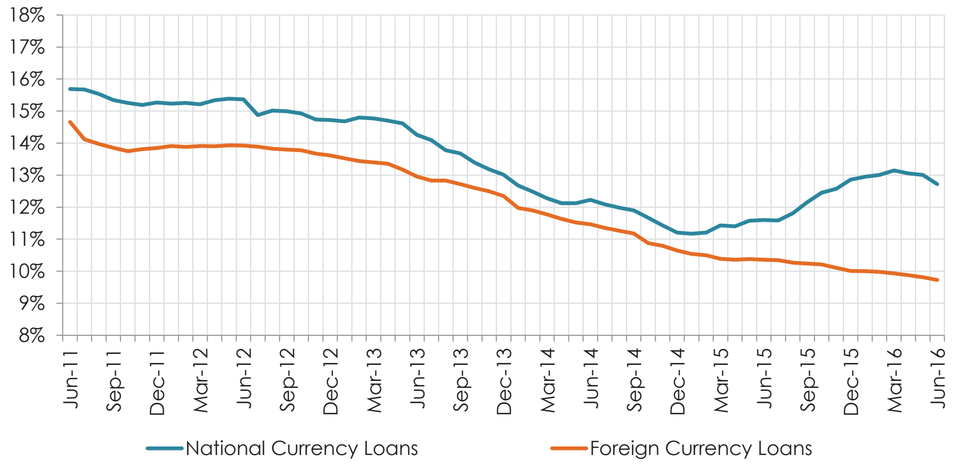


Source: National Bank of Georgia

According to the credit conditions survey, in the second quarter of 2016 credit conditions have softened for both individuals and legal entities. This was mainly reflected on the interest rate and maturity conditions for domestic currency loans. The softening of supply conditions was caused by general economic trends, decreased financial costs, and increased competition. In June, interest rates on the flow of corporate loans decreased by 1.3 percentage points compared to March and amounted to 10.1%. Interest rates on loans to small and medium business decreased by 0.8 percentage points and amounted to 10.6%, while rates on retail borrowings decreased by 0.5 percentage points and amounted to 16.5%. In the context of currencies, interest rates on business loans in the domestic currency decreased by 0.4 percentage points, while interest rates for foreign currency loans declined by 0.2 percentage points. According to the credit conditions survey, credit conditions are expected to soften in the next quarter. It should be noted that foreign currency loans with low interest rates can appear risky for the financial sector and it is therefore essential for representatives of the banking sector to take these threats into account while pricing those loans. If the US interest rate increases globally, commercial banks might face difficulties in refinancing their funds at acceptable interest rates.

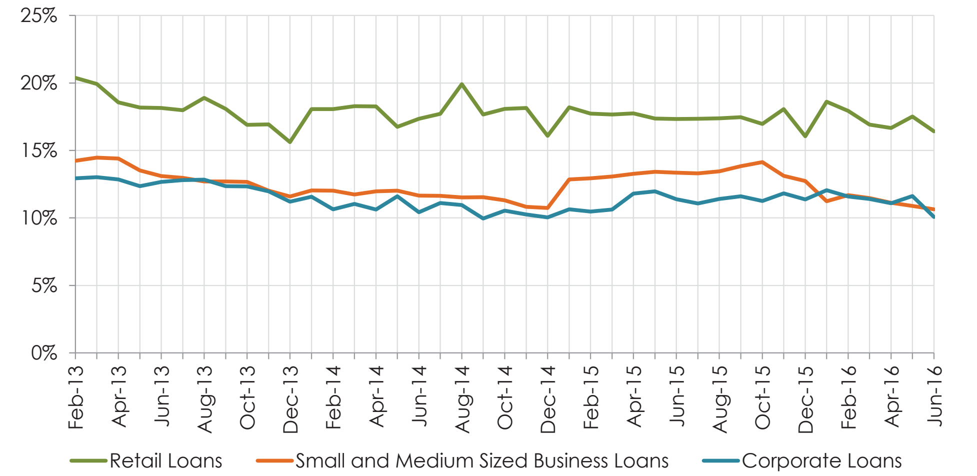
‹‹ According to the credit conditions survey, credit conditions are expected to soften in the next quarter.

Figure 5.9 Average Interest Rates On Business Loans



Source: National Bank of Georgia

Figure 5.10 Interest Rate On Loan Flow

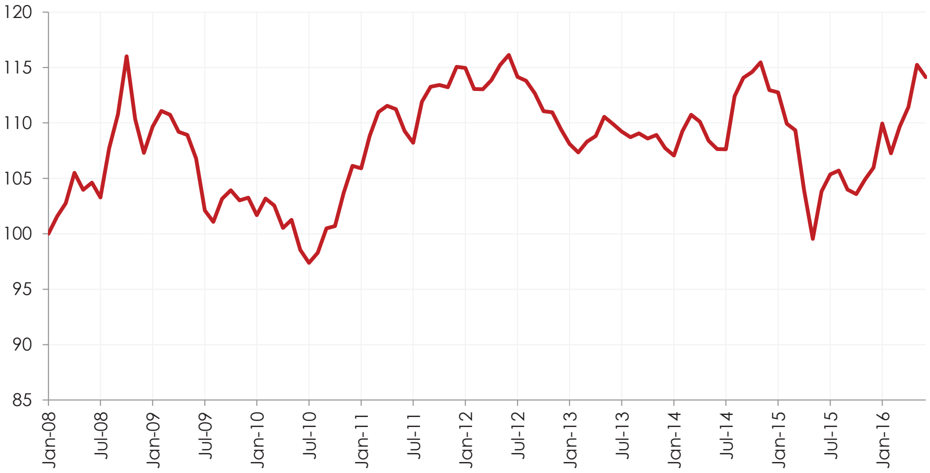


Source: National Bank of Georgia

5.3. EXCHANGE RATE

In the second quarter of 2016, the lari exchange rate appreciated against the US dollar by 9.2%, with the exchange rate averaging 2.21. The GEL appreciated against the euro (by 7%), the Turkish lira (by 7.7%), the Azerbaijani manat (by 4.7%) and the Ukrainian hryvnia (by 8.1%), but depreciated slightly against the Russian ruble by 2.6%. As a result, during the second quarter of 2016 the nominal effective exchange rate appreciated by 6.7% compared to the previous quarter and rose by 13.3% on a year-on year basis in June. The real effective exchange rate increased by 4.3% compared to the previous quarter while in June the year-on-year appreciation totaled 9.9%.

Figure 5.11 Real Effective Exchange Rate (Jan 2008=100)



Source: National Bank of Georgia

As Table 5.1 shows, in June 2016 the real exchange rate appreciated on a year-on-year basis against all of Georgia's major trading partners.

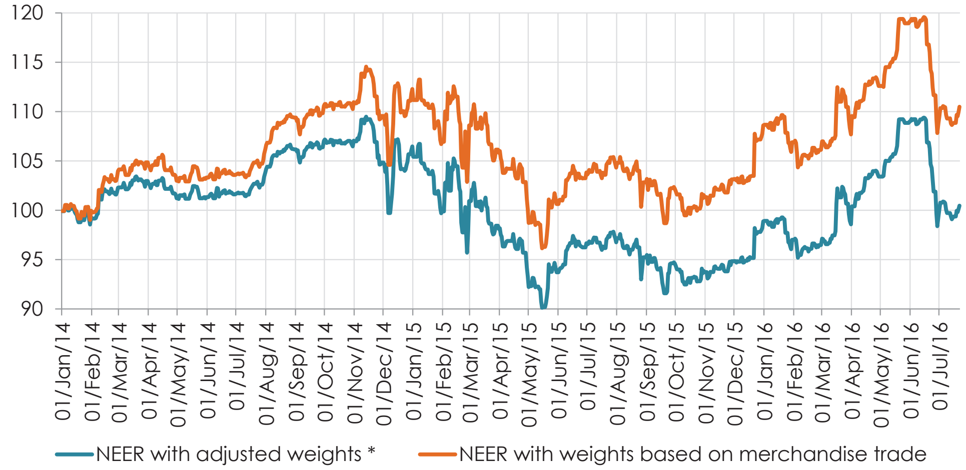
Table 5.1 Effective Exchange Rates Annual Growth

	Change of Nominal Effective Exchange Rate, %	Change of Real Effective Exchange Rate, %	Share in Real Effective Exchange Rate
Effective exchange rate	13.3	9.9	9.9
Eurozone	3.3	4.4	1.1
Turkey	12.1	5.3	1.1
Ukraine	21.8	15.3	1.1
Armenia	4.3	6.6	0.3
The United States	3.4	3.6	0.2
Russia	23.6	16.2	1.6
Azerbaijan	50.6	37.3	4.3
Other	3.8	4.3	0.3

Source: National Bank of Georgia

The nominal effective exchange rate, adjusted for commodity groups and services, paints a slightly different picture. In the first quarter, the adjusted nominal effective exchange rate appreciated by 10.9% year on year and by 7.5% compared to the previous quarter.

Figure 5.12 Corrected Nominal Effective Exchange Rate



Source: National Bank of Georgia

6. Aggregate Demand

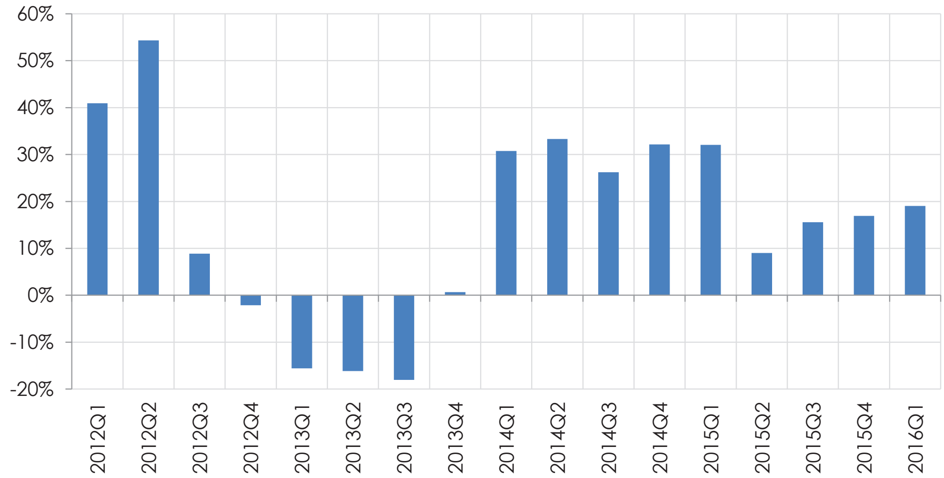
Real GDP growth amounted to 2.6% in the first quarter of 2016, with a rise in investments being the main determinant of growth. The greatest impediment to the growth of the economy was reduced domestic demand. Furthermore, despite some positive trends, external demand remains weak.

‹‹ Real GDP growth amounted to 2.6% in the first quarter of 2016.

The capital formation growth rate remained high in the first quarter of 2016 and posted 19%. The high growth rate of investments played a key role in the GDP growth of the first quarter. As internal demand remained weak, the high growth of investments was mainly due to inflows of FDI. BP's investment into a new pipeline project made the most important contribution to the growth of foreign investments. Government infrastructure projects also had a share in investment growth. Capital formation is expected to be one of the main driving forces behind GDP growth in next quarters.

‹‹ The capital formation growth rate remained high in the first quarter of 2016 and posted 19%.

Figure 6.1 Annual Growth Rate Of Capital Formation



Source: GeoStat

Weakened domestic demand was reflected in consumption. The real growth of private consumption[15] became negative in the first quarter of 2016 and posted -1.8% compared to the previous period. The decline of consumption was caused by the reduced growth of disposable incomes. The latter stemmed from decreased external income and an increased debt service on foreign currency loans following the GEL depreciation (the peak of the depreciation occurred in first quarter of 2016). Additionally, consumption growth was negatively affected by the weakened growth rate of consumer loans from commercial banks.

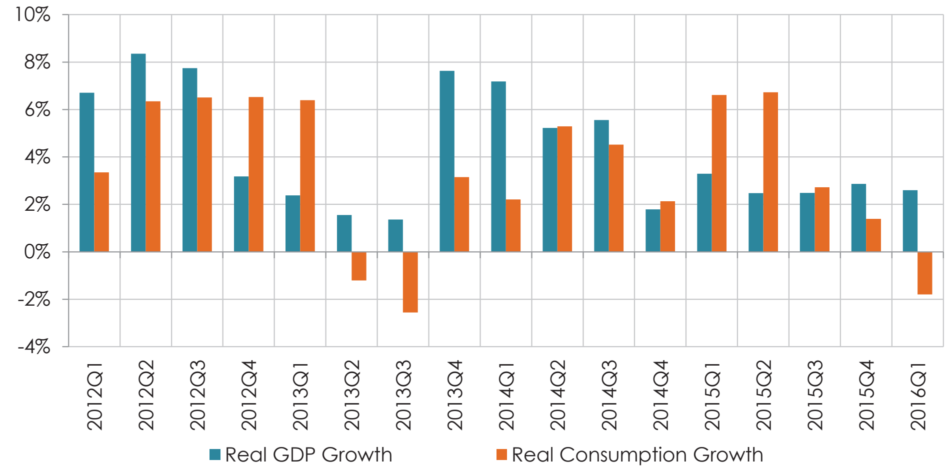
‹‹ Real growth of private consumption became negative in the first quarter of 2016 and posted -1.8% compared to previous period.

External demand remains weak, although some positive trends can be noticed. Net exports of goods and services improved insignificantly in annual terms during the first quarter of 2016 – a result of both a reduced decline of exports and decreased imports. It is more interesting to look at the real change in external trade. The negative growth rate of exports had been falling since the second of quarter of 2015, and in first quarter of 2016 the real growth rate of exports became positive. Therefore, the nominal decline of exports was a result of the decreased prices of exported goods. In contrast, the real reduction rate of imports is gradually increasing; however, according to preliminary figures, this trend might change in the second quarter of 2016. The decline of imports stemmed from reduced demand, which may have been caused by the substitution effect following the depreciation of the lari exchange rate. Another reason for the decline could be the decrease of the disposable income of individuals and legal entities. It should be noted that until now the main factor behind the de-

‹‹ Real growth rate of exports became positive in the first quarter.

15 *The real growth of consumption is calculated using average annual inflation.*

Figure 6.2 Real GDP And Real Consumption Growth

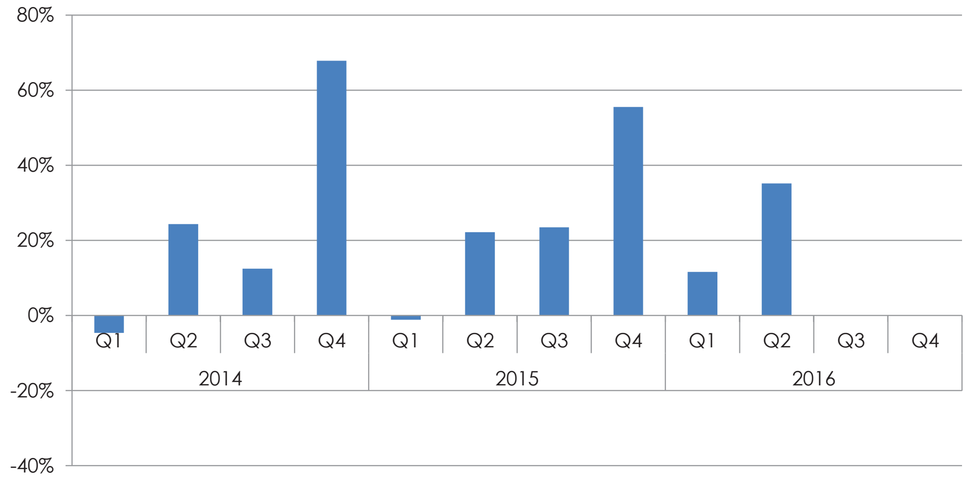


Source: GeoStat and National Bank of Georgia

crease of imports was falling prices of imported goods. However, in the first quarter of 2016 the real decline in consumption was the main factor as consumer goods became the main contributor to declined imports. According to preliminary data, imports slightly increased in second quarter of 2016 (excluding C hepatitis medications), which was mainly due to increased imports of investment goods.

The consolidated budget deficit posted 483.6 million GEL in the first half of 2016, which is twice that compared to the previous year. In 2016, the consolidated budget is planned to have a deficit of 3% of GDP. Therefore, the last two quarters of the 2016 are expected to have a negative budget deficit.

Figure 6.3 Distribution of Consolidated Budget Deficit Among Quarters



Source: Ministry of Finance of Georgia

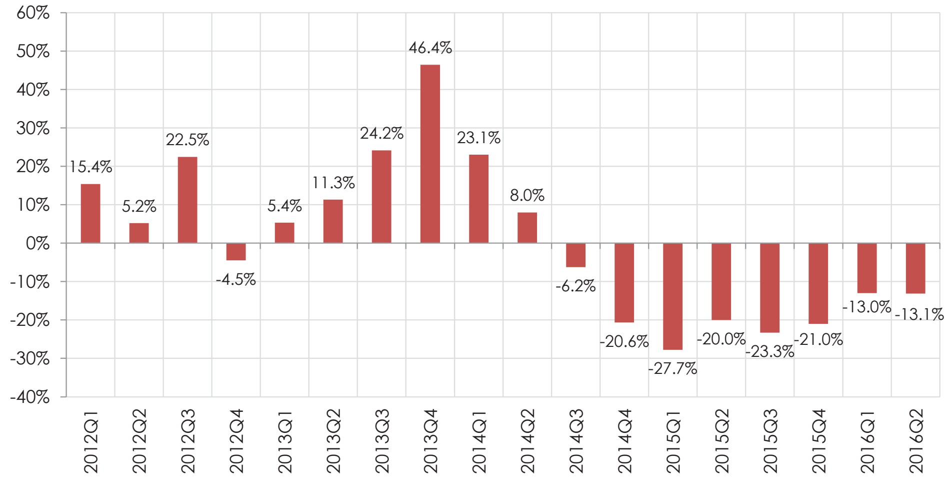
7. External Demand and Balance of Payments

The shock of external demand caused by the deteriorated economic situations in Georgia's main trading partner countries continues to impact the economy. As a result, exports of goods continued to decline in the second quarter of 2016 and amounted to 503 million US dollars, which is 13.1% less than during the corresponding period of the previous year. A significant part of the reduction of exports came from ferroalloys (-23%), medicines (-24%), fertilizers (-29%), various water products (-12%), re-exports of motor vehicles (-11%) and certain products obtained from oil.

‹‹ Exports of goods continued to decline in the second quarter of 2016.

On the other hand, exports of nuts (66%), raw or semi-raw gold (38%), cattle (55%) and natural wines (11%) significantly increased.

Figure 7.1 Annual Change Of Registered Exports Of Goods

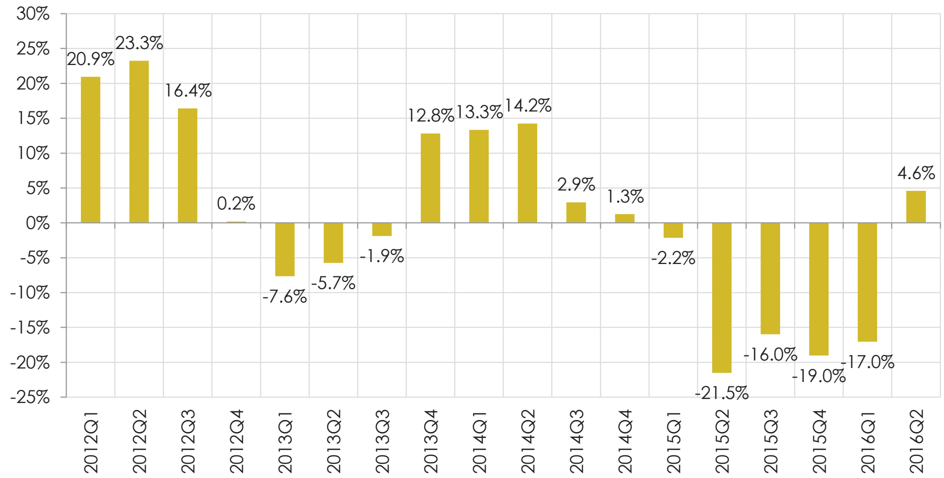


Source: GeoStat

In the second quarter of 2016, imports of goods (excluding C hepatitis treatments[16]) increased by 4.6%. It should be noted that during the last four quarters of the year the decline of imports averaged 18%. Foreign direct investments were a significant stimulus for investment and imports of intermediate goods. The volume of imports directed to building the new gas pipeline is particularly noteworthy.

16 Hepatitis C treatments are provided to Georgia as a grant and thus do not affect the current account.

Figure 7.2 Annual Change Of Registered Imports Of Goods[17]

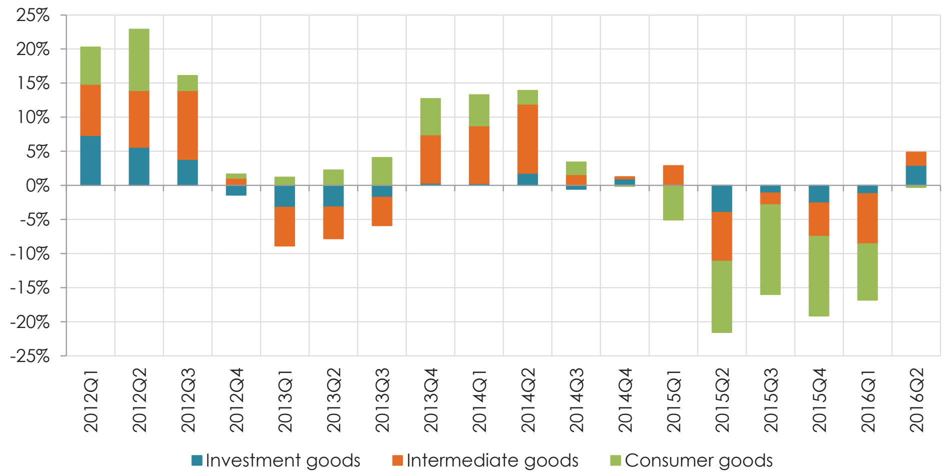


Source: GeoStat

Of the 4.6% increase in imports, 3.0 percentage points came from an increase of investment goods, which, as mentioned above, was closely related to the inflow of foreign direct investments. The contribution of intermediate goods to imports was 1.9 percentage points. Because of weak domestic demand, the decline of imports during the previous few quarters was mainly due to consumer goods. Since the first quarter of 2015, imports of consumer goods plummeted by an average of 21% annually. However, in the second quarter of 2016, the decline of consumer goods imports decreased to -0.6%.

« The depreciation of the lari reduced demand on imports.

Figure 7.3 Annual Change Of Registered Imports By Category Of Goods[18]



Source: GeoStat

In the second quarter of 2016, the volume of money transfers from abroad increased by 1.3% compared to the same period of last year. Reduced inflows from Russia and Greece, the main directions of money transfers, were balanced by increased transfers from other countries, such as the US, Turkey, Israel and Italy. In the second quarter of 2016, the volume of remittances from the EU increased by 4.6% annually, while those from the Russian Federation decreased by 15.2%. As a result, the share of remittances from Russia in the total declined to 33.6%. It should be noted that during the last two quarters the largest share of remittances transferred to Georgia came from EU countries.

« During the last two quarters, the largest share of remittances transferred to Georgia came from EU countries.

The high pace of tourist inflows has continued. In the second quarter, the number of visitors entering the country increased by 11.6%. However, in June, the rate of increase slowed to 4.1% – the latter change may be related to a landslide that occurred

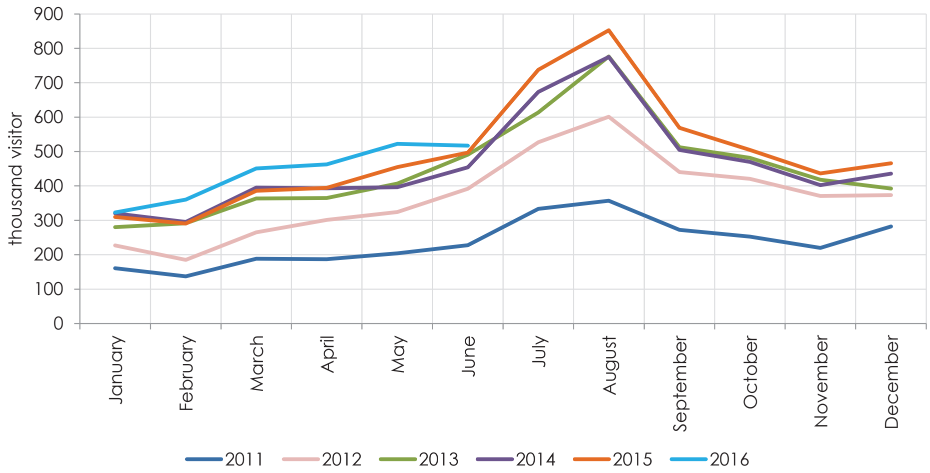
17 Excluding imports of hepatitis C treatments.
18 Excluding imports of hepatitis C treatments.

in the northern part of Georgia in June that hindered movements of visitors for a certain period. In the second quarter, visitor increases were recorded from Ukraine (31%), Russia (15%) and Azerbaijan (12%).

The observation of visitor statistics from non-neighboring countries is important. In the second quarter, the flow of visitors from those countries (including Ukraine) increased by 39%, while their share in the total figure rose to 16%.

‹‹ The share of visitors from non-neighboring countries in the total figure rose to 16%.

Figure 7.4 Number Of Incoming Visitors To Georgia



Source: GNTA

In the first quarter of 2016, the current account deficit equaled 395.1 million US dollars, or 13.1% of gross domestic product. Foreign direct investments (FDIs) are the main source of financing the current account deficit. In the first quarter, FDIs equaled 376.4 million US dollars. The largest part of this figure, 200.2 million US dollars, was directed at the transport and communications (including the new gas pipeline project), financial (59.7 million US dollars) and energy (39.9 million US dollars) sectors.

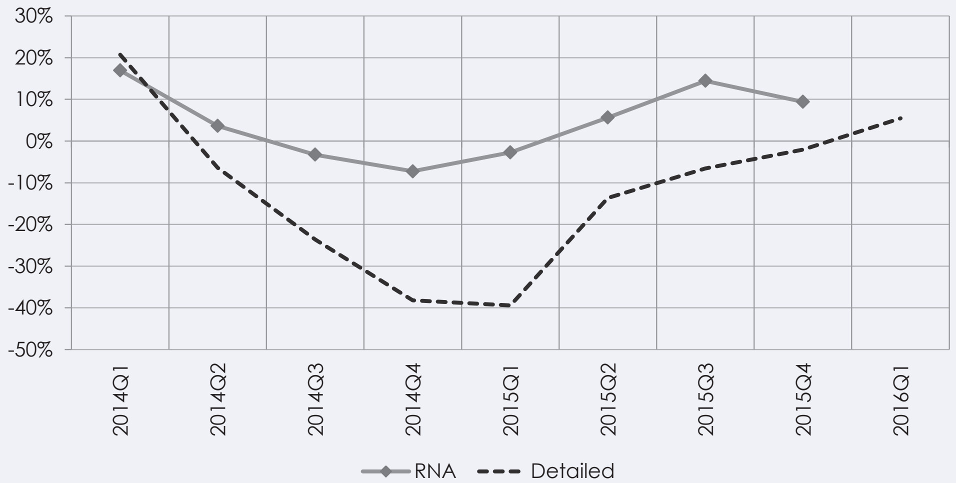
‹‹ FDIs are the main source of financing the current account deficit.

Box 1 Changes in Real Exports and Imports

During 2014-2015, external shocks caused a significant depreciation of the GEL exchange rate. In general, exchange rate depreciation has a positive effect on the competitiveness of the economy: exports increase and, at the same time, imports decrease. Nevertheless, it remains important to observe the impact the GEL exchange rate depreciation had in Georgia. To evaluate the impact, it is necessary to analyze the dynamics of real exports and imports. To assess real changes, the National Bank of Georgia uses two different methodologies, and the results of the estimation of the changes based on these two models are presented in the diagrams below. The results clearly indicate the corrective effect that exchange rate fluctuations have and emphasize the positive effect on reducing foreign imbalances.

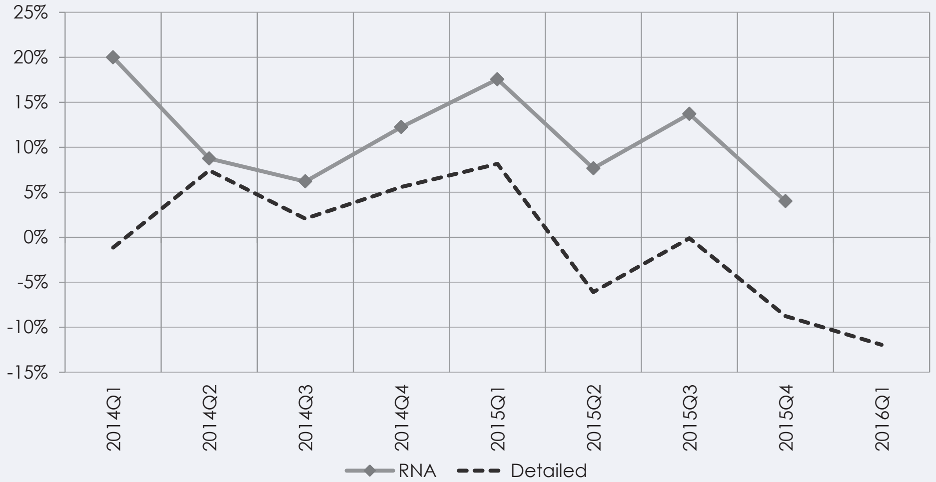
In the first stages of the foreign shock, when the depreciation had not yet started, real exports were decreasing rapidly due to reduced external demand. The rate of decline reached almost 40% by the end of 2014. However, at the same time, imports continued to grow because of the appreciated currency. Real imports increased by about 4% during 2014. Accordingly, the deficit deepened and the pressure on the exchange rate to depreciate intensified. During subsequent periods, because of the depreciation of the exchange rate, real exports of goods and services, as well as registered real exports, were characterized by an increasing trend (see Figure 7.5). There were positive changes in real imports dynamics. The growth rate of real imports of goods and services decreased by the end of 2015, while a significant decrease was observed in the case of real imports of registered goods (see Figure 7.6).

Figure 7.5 Annual Growth Rate of Real Exports



Source: National Bank of Georgia

Figure 7.6 Annual Growth Rate of Real Imports



Source: National Bank of Georgia

In the absence of official quarterly data[19] for analyzing the dynamics of real exports and imports, nominal exports and imports data are deflated using corresponding price deflators to obtain real indicators. As mentioned above, the National Bank of Georgia uses two different methods. The first, the real national account components model (RNA), is a satellite model that estimates, on a quarterly basis, real GDP components consistently with domestic and external macroeconomic data as soon as the official nominal numbers are published. The second is a detailed method, which, on a monthly basis, estimates real exports and imports by assessing individual commodity prices from the registered trade database.

The two methods described above imply similar trends but give different results, something that can be explained by methodological differences. In the RNA model, the deflators of real goods and services imports and real goods and services exports have separate equations. The export deflator depends on the GDP deflator and consumer price inflation. Meanwhile, the import deflator is calculated outside the model and is then presented by an auto-regression process in the model. In particular, the import deflator is a weighted sum of commodity and non-commodity import prices, where the weights are corresponding shares in Georgian imports. For commodity prices, the IMF's All Commodity Price Index is used, assuming that it captures all commodities relevant for Georgia. The non-commodity part is approximated by effective foreign inflation. Effective foreign inflation, in turn, is the weighted sum of the CPI inflation of Georgia's main trading partners, where the weights are the corresponding shares in Georgia's non-commodity imports.

As for the detailed method, in order to analyze changes in real exports and imports of registered goods, the export and import price indices are estimated. These estimations are performed by monitoring the prices of individual goods from the registered trade database on a monthly basis. In particular, for estimating the indices, each month a set of exported and imported goods are selected that cover the largest share of exports and imports (75-80%). To obtain real changes, exports and imports are deflated using estimated price indices.

19 The National Statistics Office of Georgia (GeoStat) started to publish real growth rates for the national account components in 2015. However, the data is yearly and publication has a 3-4 quarter time lag.

8. Output and labor market

8.1 OUTPUT

In the first quarter of 2016, GDP rose by 2.6% in comparison with the same period of the previous year. At 1.6 percentage point (p.p.), the industrial sector made the largest contribution to overall growth. The service sector contributed 0.9 p.p. and agriculture 0.2 p.p.

From the industrial sector, the growth of construction industry has been remarkable. In the first quarter it grew by 25.7% and its contribution to overall growth was 1.4 percentage points. This notable growth is related to the construction of the new gas pipeline crossing the country. A 29% increase was recorded in the mining industry, which is also reflected on the industry's export data. This sector made a 0.2 p.p. contribution to overall growth. After a long decline, manufacturing increased by 0.2% – mainly as a result of the base effect and the growth of foreign demand for some of the export products.

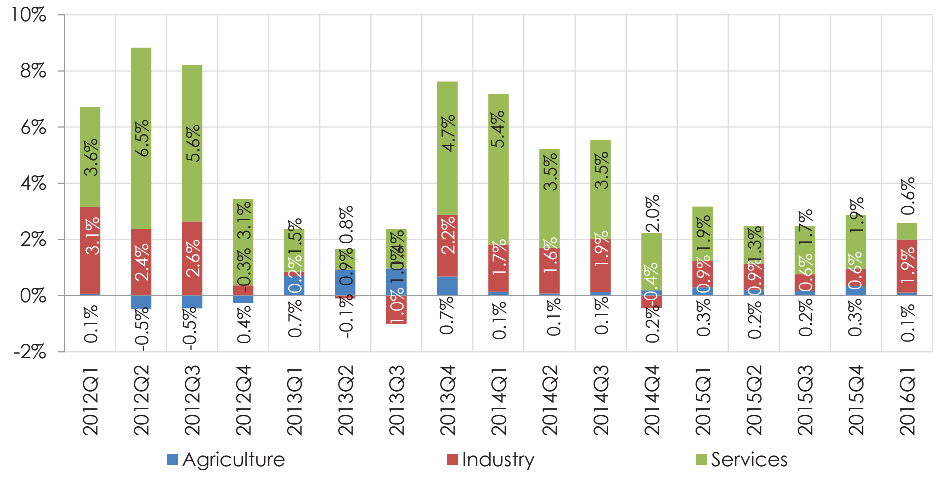
« The most important contribution to growth in first quarter of 2016 was made by the construction sector and real estate operations.

The most remarkable growth from the services sector was seen in real estate and renting activities (growth of 9.4%, making a 0.5 p.p. contribution to GDP growth). Here, a significant proportion of the turnover comes from real estate agencies and the substantial growth is associated with high activity in the market. Trade, the largest sector of the economy, also increased (growth of 1.9%; making a 0.3 p.p. contribution to GDP growth). Growth was traditionally high in financial activities (growth of 8.4%; making a 0.3 p.p. contribution to GDP growth). The output of hotels and restaurants increased by 11.7%, likely augmented by a 15% increase in the number of visitors entering the country, and made a 0.2 p.p. contribution to GDP growth. The increased output of air transport, travel companies, tourist agencies and other land transport may also be associated with the augmented flow of visitors. Transportation via pipelines also significantly increased. However, a reduction was observed in cargo handling and storage and in other supporting transport activities. In the first quarter, the overall transport sector decreased by 1.1%.

« The increased number of visitors has positively impacted the economy.

The agriculture sector rose by 1.9% and contributed 0.2 p.p. to GDP growth.

Figure 8.1 Contribution Of Sectors Of Economy To Real GDP Growth



Source: GeoStat, National Bank of Georgia

Box 2 Potential Output Growth Decomposition for the Georgian Economy

Potential output is defined as the level of production that can be attained in the long run under the full utilization of economic capital. Its accurate and reliable estimation is crucial for identifying the deviations of current output from the potential level. In addition, exploring the dynamics of potential output permits evaluation of the contributions of major factors of production and their productivity to its growth.

The potential output growth decomposition shows how each factor of production affects the capacity of the economy and how their contributions change over time. The following analysis has implications for monetary policymakers as well as for those in charge of implementing structural reforms, allowing them to consistently assess the efficiency of the utilization of a given production factor.

Since potential output is an unobservable variable, both structural and econometric methods are commonly used for its estimation. In the case of the Georgian economy, given the fluctuations accompanying the transition period and the lack of available data, implementing a structural approach is believed to provide more reliable outcomes.

In order to describe the current output level of the economy, the following specification of the Cobb-Douglas production function is used:

$$Y_t = A_t K_t^{\alpha} L_t^{\beta} \quad (1)$$

Where Y_t is the current level of output.[20] A_t depicts current total factor productivity, which encompasses technological as well as allocative efficiency. L_t is the number of employed and K_t is the stock of capital in the given period. Since the latter is not directly measured in Georgia, it needs to be indirectly evaluated. For this purpose, the initial stock of capital is estimated for 1996 based on the following assumptions: the capital market is perfectly competitive and the rate of return accrued to the owners is proportional to the productivity of capital:

$$\alpha = r\, K_{1996} / Y_{1996} \quad (2)$$

Where r is the rate of return on capital determined in a perfectly competitive market and α depicts the elasticity of output with respect to the capital stock. After rearranging equation (2), the stock of capital for the given year can be estimated as follows:

$$K_{1996} = \alpha / r\ Y_{1996} \quad (3)$$

Where α is equated to 0.4 and the rate of return on capital is assumed to be 20% based on the corresponding literature.[21] As for the following years, capital stock is estimated recursively using the following law of motion:

$$K_{t+1} = (1-\delta)\, K_t + I_t \quad (4)$$

Where δ is the depreciation rate of capital, which is assumed to be 5%. I_t corresponds to capital investments. It is measured as the gross fixed capital formation for the given year.

The specification of the production function described above is based on the following assumptions: capital and labor have diminishing marginal productivity ($\alpha,\beta \in (0,1)$), and the production exhibits constant returns to scale ($\alpha+\beta=1$).

After the log-linearization of equation (1), current total factor productivity is estimated. Next, potential output is evaluated as follows:

$$\overline{Y}_t = \overline{A}_t \cdot K_t^{\alpha} \overline{L}_t^{\beta} \quad (5)$$

Where $\overline{Y}_t$ is the level of potential output. Its magnitude is determined based on the trend of total factor productivity ($\overline{A}_t$), capital stock (K_t) and potential level of employment ($\overline{L}_t$). In the literature potential employment is described as the level of employment that corresponds to the non-accelerating inflation rate of unemployment (NAIRU).[22] However, since this indicator is not available for Georgia, potential employment is estimated as the current employment trend.

The trends of total factor productivity and employment depend on the selected filter. In the following analysis a Kalman filter is used. This allows estimation of unobservable quantities based on structural interdependencies and observable variables. Based on the estimated trends, potential output can be obtained from equation (5) (see Figure 8.2).

As can be seen from the figure, starting from the second quarter of 2014 actual output became lower than the potential level and the negative gap tends to increase in size.

After estimating the potential output, its growth rate has been decomposed according to the specific production inputs and total factor productivity (see Figure 8.3).

The figure shows that during 2011-2015 the role of employment in potential output growth was negligible, whereas the contributions of capital and total factor productivity were gradually increasing. This tendency indicates a more efficient utilization of capital in the production process.

During the post-crisis period (2010-2015), the average potential growth rate was 4.7%, which falls considerably short of

20 The current level of output is taken as the seasonally adjusted real GDP evaluated in the constant prices of 2010.
21 Iradian, G. (2007). Rapid Growth in Transition Economies: Growth-accounting approach. IMF Working Paper.
22 Hajkova, D., & Hurnik, J. (2007). Cobb-Douglas Production Function: The Case of Converging Economy, Czech Journal of Economics and Finance, 57, Nos.9-10.

Figure 8.2 Potential and actual output in Georgia (1997-2015)

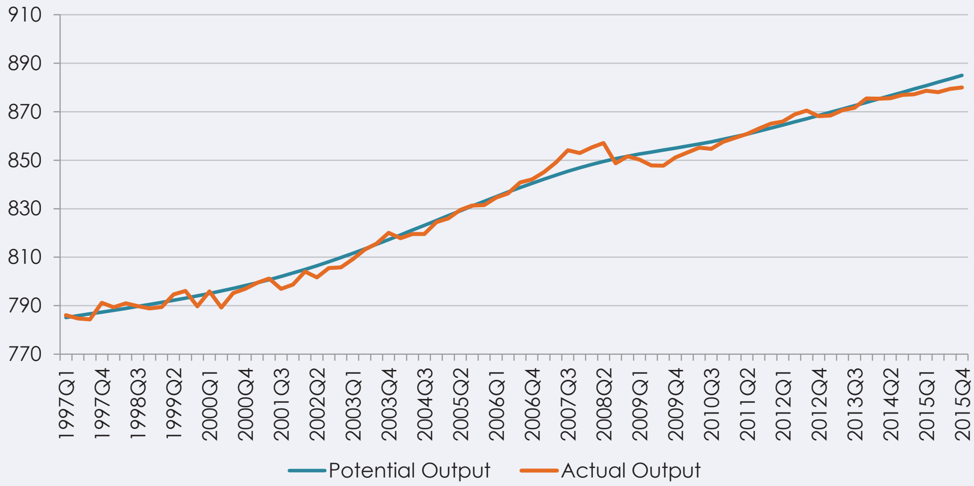
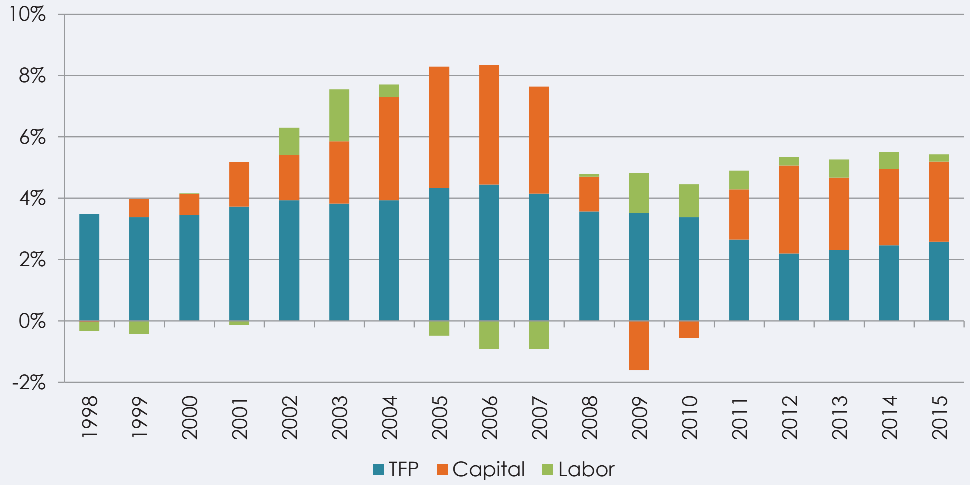


Figure 8.3 Potential output growth decomposition in Georgia (1998-2015)

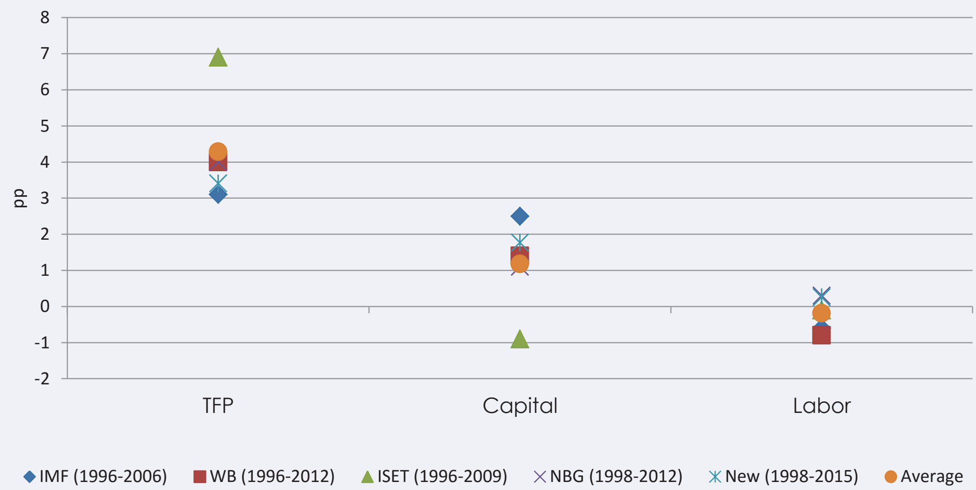


Source: National Bank of Georgia

the corresponding long-term potential growth rate (5.4%). The difference can be mainly ascribed to the supply shocks accompanying the external factors.

Figure 8.4 displays a comparison of the results with the findings of previous research. For instance, if we compare these results to the findings of a similar analysis conducted by the National Bank of Georgia in 2012, we will see that the contribution of total factor productivity to potential growth has declined, while the role of capital has increased. The contribution of labor is almost unchanged. On average, taking into account the findings of all the analyses considered, during the last two decades the contribution of total factor productivity to potential growth was 4.3 percentage points, the role of capital was 1.2 p.p. and the contribution of labor was negative at -0.2 p.p.

Figure 8.4 Comparison of the findings with previous research



Source: National Bank of Georgia; IMF; the World Bank; the ISET Policy Institute.

8.2 LABOR MARKET

In the first quarter of 2016, the growth rate of real value added produced per worker increased and amounted to 3.4% y-o-y. During this period, labor productivity in the agriculture sector increased by 5.5%, which was 1.4 percentage points higher than in the previous quarter. After declining during the previous quarters, labor productivity in the industrial sectors increased by 2.7%. Taking into account higher productivity in the industrial sectors, relative to the other sectors, the growth recorded in the industry largely led to the wider increase in labor productivity in the economy. In the services sector, after a reduction in the previous quarter, the real value added per employee increased by 3.3%.

‹‹ Labor productivity growth increased to 1.6% during the first quarter of 2016. This growth can be largely attributed to the industrial sector.

Table 8.1 Annual Growth of Real Value Added Produced per Worker in the First Quarter of 2016

	Labor productivity growth, %
Agriculture and processing of agriculture products by households	5.5%
Industrial sectors	2.7%
Service sector	3.3%
Overall in the economy	**3.4%**

Source: GeoStat and National Bank of Georgia

As a sectoral breakdown of the economy shows, the fall of labor productivity in manufacturing slowed to -1.2% year on year, which is 6.3 percentage points higher than previous quarter's rate. A 6.3% annual growth rate was recorded in construction. It is worth noting that after declining during the preceding quarter, labor productivity increased by 12% in the trade sector. Meanwhile, there was a sharp growth of 52.6% in hotel and restaurant businesses.

‹‹ Labor productivity increased in manufacturing. High growth was recorded in the construction and hotels and restaurants sectors.

The annual growth rate of the nominal salaries of employees amounted to 6.7% during the first quarter of 2016, with the average monthly nominal salary standing at 913 GEL, according to the latest data from Geostat. The growth rate was 0.2 percentage points higher than in the previous quarter.

‹‹ The nominal salaries of employees increased by 6.7% y-o-y.

In terms of sector analysis, high increases of salaries were evident in the construction, hotels and restaurants, and trade sectors. Average salaries only decreased in the fishery and financial intermediation sectors.

Table 8.2 Annual Growth of Average Monthly Nominal Wage of Employees in the First Quarter of 2016

	Growth of nominal wage, %
Agriculture, hunting and forestry	2.8%
Fishing	-8.6%
Mining and quarrying	8.6%
Manufacturing	6.0%
Production and distribution of electricity, gas and water	1.5%
Construction	22.9%
Wholesale and retail trade; repair of motor vehicles and personal and household goods	10.0%
Hotels and restaurants	21.7%
Transport and communications	3.8%
Financial intermediation	-0.5%
Real estate, renting and business activities	1.0%
Public administration	5.8%

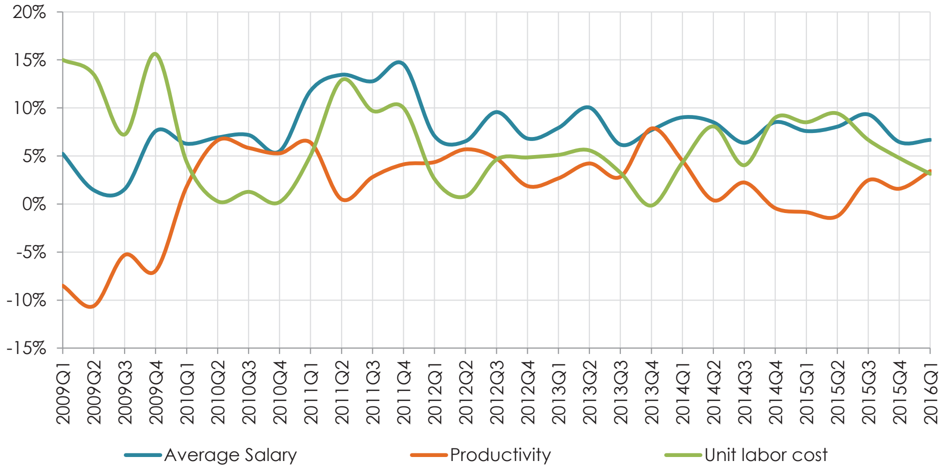
	Growth of nominal wage, %
Education	6.6%
Healthcare and social work	7.1%
Other community, social and personal service activities	5.7%
Overall in the economy	**6.7%**

Source: National Bank of Georgia

To sum up, against the backdrop of a year-on-year increase of labor productivity, the annual growth rate of unit labor cost[23] (personnel expense per production unit) declined and stood at 3.1% by the end of the first quarter of 2016, indicating a reduction of inflationary pressure from the labor market (see Figure 8.5).

« The annual growth rate of unit labor cost declined.

Figure 8.5 Labor Productivity, Average Monthly Salary and Unit Labor Cost, 2009-2016Q1 (Annual Percentage Change)



Source: GeoStat and National Bank of Georgia

23 *The same as salary expenditures as a share of aggregate real value added (GDP).*

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