საქართველოს ეროვნული ბანკი
National Bank of Georgia

Financial Stability Report 2023

Preface

The Financial Stability Report is an annual publication issued by the National Bank of Georgia (NBG). It presents an assessment of vulnerabilities and risks in the financial system, with a focus on the long-term, structural features of the financial sector and the Georgian economy that are of importance for financial stability. It also analyses the domestic financial system's resilience and conveys the Financial Stability Committee's (FSC) view on the policies and measures necessary to preserve financial stability.

The financial system is considered stable when it can provide crucial services to market participants in both good and bad times. It is a cornerstone for the sustainable development of the economy.

Given its mandate as defined by the Organic Law of Georgia, the National Bank of Georgia continuously aims to ensure that the financial system is safe and sound.

This analysis draws on data available up to 30 June 2023, unless otherwise stated.

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ISSN 1118-55987-1

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Executive Summary

Due to the macroprudential and microprudential measures adopted by the National Bank of Georgia (NBG), the financial sector remains resilient and continues smooth lending to the economy. As a result of the economic recovery, the appreciation of the national currency, and the measures implemented by the National Bank of Georgia, the financial indicators of commercial banks have improved. The majority of commercial banks recovered the capital buffers that were released at the beginning of the pandemic before the due date. Moreover, amidst the macroprudential measures and the tightened monetary policy adopted by the NBG, credit growth has approached its sustainable level. These developments have created favorable preconditions for revising the framework for setting the countercyclical capital buffer, which is in line with the recommendations of the Basel Committee. According to the new framework implemented by the NBG, the base rate of the cycle-neutral countercyclical capital buffer under normal conditions is positive. It not only restricts excessive credit issuance, but also mitigates risks stemming from a sharp reduction of credit during negative shocks, supporting smooth lending by the financial system. To support financial stability, the NBG has also implemented the Minimum Requirement for Own Funds and Eligible Liabilities (MREL) for systemically important banks. The abovementioned indicates the healthiness of the country's financial system. Moreover, the non-banking sector, which must also meet prudential requirements, remains resilient.

Despite the positive developments observed in recent periods, financial stability risks arising from the external sector remain significant. Structural challenges facing the Georgian economy – such as the high level of dollarization, the current account deficit and a significant dependence on international financial inflows – further exacerbate the vulnerability of the Georgian financial system to global economic and financial dynamics. With the revival of the global economy since 2021, the Georgian economy also recovered and is currently characterized by high growth. This was supported by the financial inflows and migration that followed the Russian-Ukraine war, as well as strong internal demand. Moreover, in the recent period, inflationary pressures decreased as a consequence of the tight monetary policy adopted by the NBG and the appreciated GEL. Despite these positive developments, financial stability risks stemming from Georgia's external sector remain significant. These risks include the persistence of high inflationary environments in developed countries and the resulting tightening of financial conditions globally, high uncertainty related to the duration of the Russia-Ukraine war, and a potential worsening of the economic outlooks of Georgia's trade partner countries. Risks arising from macro-financial conditions thus remain significant, including a potential decrease in external demand and a sudden outflow of capital in Georgia and the region, which might be followed by a currency depreciation; a rise in the external debt service burden and sovereign risk premia; and a widening of the current account deficit in the midst of globally tightened financial conditions.

The credit risk of households remains at a low level. High economic growth has improved the creditworthiness of households, which supports a low share of non-performing loans. Starting from the second half of 2022, the share of non-performing loans decreased, especially for foreign currency loans issued to households, which was partially driven by the appreciation of GEL. The improvement of households' creditworthiness is also explained by the rise in average wages. On the other hand, tightened financial conditions against the backdrop of globally protracted inflation negatively affect the debt service burden of households. Despite the slowdown in household credit growth, its level remains relatively high. Dollarization is also characterized by a decreasing trend, but the exchange rate risk of unhedged borrowers remains significant. It should be noted that the macroprudential policy implemented by the NBG prevents additional accumulation of such risks.

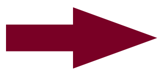
Despite the increased uncertainty amid the Russia-Ukraine war, non-financial corporations continue to grow at a stable rate. A particularly high rate of growth has been observed for large companies, while the growth rate of small- and medium-sized enterprises has declined compared to 2022. The latter group of companies is characterized by a relatively lower level of diversification and a limited ability to manage risks, which makes them vulnerable to external factors. The sectoral growth of firms is not uniform; however, the share of non-performing loans has decreased for almost all sectors, which indicates an improved level of resilience. Also, the share of companies that used the grace periods for loans introduced during the pandemic declined to reach zero. Since 2021, the debt-to-GDP ratio of non-financial corporations has been below the trend, which has largely been driven by high nominal GDP growth and the currency appreciation. However, in the recent period, the decline of the debt service burden has decelerated, which means that the indicator will start approaching its trend. Moreover, the share of short-term debt in total debt for non-financial companies has decreased. From the second half of 2022, the share of external debt in total debt has also sharply declined, indicating the pressure caused by tightened financial conditions globally. It should be noted that the issuance of corporate bonds has increased sharply on local capital markets in both local and foreign currency. Despite the fact that the share of bonds in the total financing of non-financial corporations is low, the rise in the share of foreign currency-denominated liabilities is evident. The reliance of companies on foreign sources of financing and the high level of liability dollarization reflect risks in this sector. However, according to the sensitivity analysis of the companies, in the event of the realization of the moderate-stress scenario, the ability of companies to service their debts would remain at a healthy level, while their financial vulnerability risks would not increase significantly.

With the elimination of the negative consequences of the pandemic crisis and increasing migration into the country, the demand for real estate increased significantly. Moreover, real estate rental prices rose sharply. The real estate market was resilient before the pandemic, which, along with measures taken by the NBG and the government, helped the sector overcome the pandemic crisis. Following the Russia-Ukraine war, migration into the country increased, which caused a significant rise in demand for real estate in 2022. However, in the first half of 2023 there were signs of a slowdown in the growth rate of demand. The growth of real estate sale prices are more or less consistent with increasing construction costs and production price inflation. In contrast, for rental prices, the increase was more pronounced and significantly exceeded its long-term trend, which could become a source of the financial stability risk for Georgia. Moreover, the capitalization index, which is a measure of the investment attractiveness of property, has also increased compared to last year. However, in the first half of 2023 the capitalization index decreased slightly, which raises financial stability concerns. It should be noted that the affordability of real estate has slightly decreased; however, it remains at a high level. The affordability of real estate is one of the fundamental factors influencing demand. Despite the fact that the real estate market remains stable, the Russia-Ukraine war significantly increases uncertainty in the region, which could become a source of significant risks if real estate activities were to decline. Realization of such risks in the real estate market could significantly affect the quality of banks' assets and therefore become a source of financial stability risk. Therefore, monitoring the real estate market gains particular importance.

As a result of the financial stability policy measures implemented by the National Bank of Georgia, the financial system remains stable and has continued smooth lending to the economy in 2023. Over the course of the past year, banking sector capital adequacy, liquidity, loan quality and profitability measures have improved significantly. The risk premium and currency fluctuation have declined, which contributed to the reduction of the financial stress index. It should be noted that the financial problems observed among several banks in the United States and Switzerland did not spill over to the Georgian banking sector, as they were not directly linked. Amid the ongoing geopolitical tension, there is high uncertainty surrounding macrofinancial trends; however, the Georgian financial sector remains resilient. The credit-to-GDP ratio has been declining over the past two years, which was driven by high economic growth and the appreciation of the local currency. As a result, in the second quarter of 2023, the credit-to-GDP ratio is below its long-term trend; however, current credit-to-GDP ratio is comparable to that of peer countries. The credit-to-GDP ratio is expected to remain below its trend until the end of 2023, while next year its increase will be in line with nominal economic growth.

The NBG's efforts to improve the resilience of the financial system are a continuous work in progress. The National Bank is constantly monitoring the situation and will use all the tools at its disposal to reduce the impact of potential threats caused by the complex geopolitical situation in the region on the country's economy and ensure financial stability. Following various global and regional challenges that have emerged over the past couple of years, the banking sector's asset quality and profitability have improved. Banks have healthy capital and liquidity indicators. However, it should be noted that there is high uncertainty surrounding the duration of the Russia-Ukraine war, the imposition of additional sanctions against Russia, and their potential economic and financial impact. The National Bank continues to actively monitor the country's financial stability, to assess domestic and foreign risks, and to ensure financial stability by employing macroprudential and microprudential instruments.

The following table summarizes the major financial stability risks facing the Georgian economy:

The Main Risks to Financial Stability	Magnitude/Change
Risks related to the prolongation of the Russia-Ukraine war and the possible escalation of the geopolitical conflict. The risks arising from the Russia-Ukraine war remain significant, which causes macrofinancial vulnerability globally, as well as among trade partner countries. Specifically, the worsened inflationary environment stemming from the war has caused a tightening of financial conditions and a slowdown of economic growth. Moreover, the turbulent geopolitical situation could negatively impact investor sentiment in the region and lead to a reassessment of the country's sovereign risk premium. In such a case, capital will begin to flow out of the country, which will put depreciation pressure on the local currency. Materialization of this risk will have a significant impact on both inflation and the quality of the loan portfolio, which will be further exacerbated by the high level of dollarization.	
In case of persistent inflation, risks arising from globally tightened monetary policy. If global inflation persists for longer than expected, the speed of monetary policy loosening will significantly decline. With the ongoing geopolitical tensions, global inflation might prove to be more persistent than expected, which will either lead to additional monetary policy tightening or policy being kept tight for longer, causing a slowdown of the global economy and increasing financial stability risks. This will result in risk repricing on financial markets and a worsening of financial conditions. As a result, developing and emerging market economies will have increasingly limited access to foreign sources of financing and the burden of foreign debt will increase.	

The Main Risks to Financial Stability	Magnitude/Change
The rent price dynamics and real estate sector risks have become significant amid the increased migration caused by the Russia-Ukraine war. Since 2022, real estate rental prices have increased sharply and significantly exceeded the long-term trend. In the event of declining rent prices, the revenue from rent will decline, which will have a negative effect on borrowers' ability to service their debts and will create financial stability risks. It should be noted that real estate prices denominated in both local and foreign currency increased, caused by high demand following the inflow of migrants as well as increasing construction costs. Further developments related to the war may also have a negative impact on real estate prices, which will affect the quality of banks' assets and, therefore, become a source of financial instability.	→
Risks caused by the deterioration of external macrofinancial conditions. The effects of the Russia-Ukraine war varied across the countries of the region. On the one hand, the war had a deteriorating effect on the parties directly involved in the conflict. On the other hand, financial inflows increased significantly in other regional countries, which had a positive effect on their GDPs. However, a normalization of inflows or a sudden outflow of funds could negatively affect economic growth. This would decrease Georgia's external demand and slow its economic growth. Moreover, with sudden capital and financial outflows in neighboring countries, their currencies could depreciate, creating inflationary pressure.	→

1 = minor risk and 6 = major risk. The arrow indicates changes in the risk level from the previous year

≥1	≥2	≥3	≥4	≥5	≥6

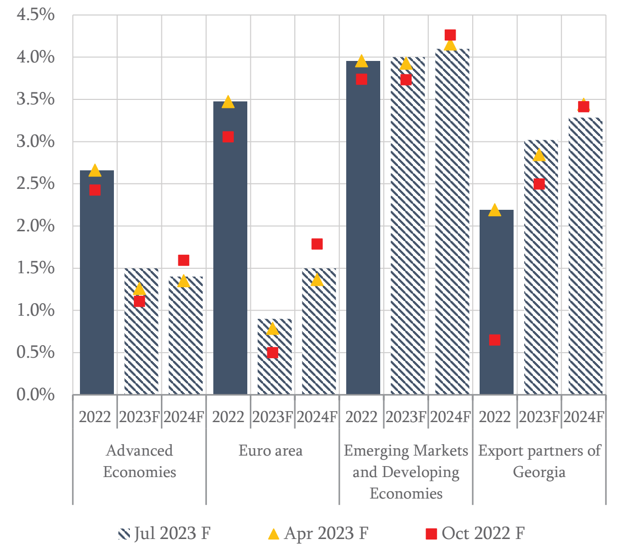
I. Macro-Financial Environment and Outlook

In the wake of the large-scale shocks observed over the past three years, such as the pandemic and the Russia-Ukraine war, the global economy still faces a number of challenges. Given the tightened monetary policy in response to increased inflation, global economic growth is expected to decrease in 2023, which is largely driven by the economic slowdown in developed economies. Despite a gradual decrease, global inflation remains a significant challenge for central banks across the world. The vulnerability of developing and emerging economies remains high, which has further been exacerbated by the tightening of financial conditions and increased debt service burdens. The tense regional geopolitical situation and its possible escalation pose a significant risk to countries in the region. These factors create threats for the domestic macrofinancial environment.

Following the large-scale shocks experienced over the past three years, including the COVID-19 pandemic and the war in Ukraine, the global economy is still facing challenges. On the one hand, globally elevated inflation remains an important problem. Due to pent-up demand, lingering disruptions in supply chains and higher commodity prices, inflation rose to a multi-decade high in many countries around the world last year. In response, leading central banks have actively continued monetary policy tightening to better anchor inflationary expectations and to return inflation to the target levels. On the other hand, financial vulnerabilities remain significant, including the historically high levels of both public and private sector debt; significantly increased asset prices, including for real estate; and signs of stress in the financial sector. The situation is further complicated by the fact that the tightened monetary policy, which aims to reduce inflation, at the same time aggravates risks to financial stability. However, despite these issues, global economic growth turned out to be more resilient than had been expected, which was largely a result of service sector activity.

Economic growth has continued to slow in developed economies, while remaining relatively stable for developing countries; however, there is significant variation across regions. It has been over a year since Russia's invasion of Ukraine and the spread of new COVID variants in China, yet the effects of these shocks are still ongoing in many countries across the globe. Moreover, globally tightened financial conditions further hinder the economic recovery. As a result, the International Monetary Fund (IMF) has estimated global growth to decrease from 3.5% to 3% in 2023, and expects it to stay at the same level in 2024. This downward trend is mainly caused by the economic slowdown in developed countries, which is predominantly driven by weak activity in the manufacturing sector. Meanwhile, emerging market and developing economies (EMDEs) are characterized by relatively stable growth (see Figure I.1), although the situation varies across regions. Approximately 60% of such countries have experienced higher growth compared to the previous year, while in the remaining countries' growth has slowed down.

Figure I.1. Economic growth in a selected group of economies[1]



Source: WEO database, NBG, NBU[2].

1 The IMF's July 2023 forecast has only been updated for some countries. Georgia's export partners include its seven main trading partners (based on the 2021-2022 data), but the April forecast was only updated for three of these. For the remaining four countries, the April forecasts of the NBG, NBU and IMF were used.

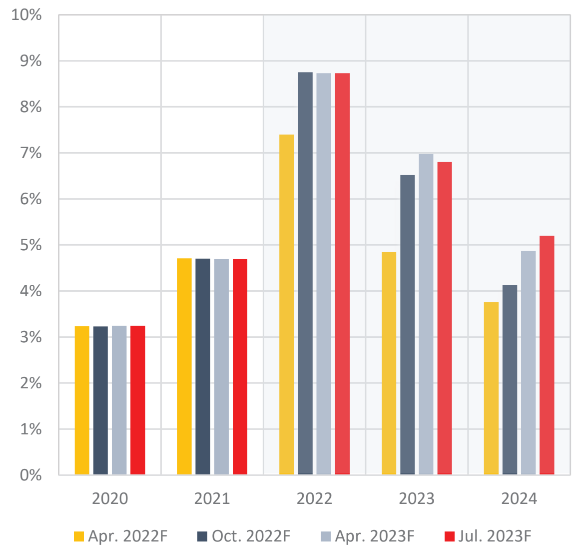
2 National Bank of Ukraine.

Despite a gradual reduction, global inflation remains an important challenge for central banks all over the world. In the wake of globally tightened monetary policy, global inflation has gradually started declining, albeit doing so at a slower pace than previously expected. As a result, global inflation projections were revised upwards several times over the course of the year (Figure I.2). Starting from the second quarter of 2023, commodity prices on international markets were characterized by a decreasing trend. Russia's military operations in Ukraine last year significantly increased food prices on international markets. However, with the creation of humanitarian corridors by the European Union and the reaching of an agreement on the export of grain from the Black Sea ports, prices began to decrease from the second quarter of 2022 and this trend continued in 2023. This was the main reason why the IMF revised the global inflation forecast downwards in July 2023. On the other hand, core inflation proved to be more rigid, especially in developed countries. Inflation is expected to remain above the target level in 2023 as well as in 2024 in the majority of countries.

Nominal wage growth is still lagging behind inflation, which significantly reduces the real wage. However, the formation of a wage-price spiral is less likely. On the one hand, the real wage is expected to grow amid tight labor market conditions; however, on the other hand, increased corporate margins in recent years allow companies to absorb increased costs without that translating into higher prices of final products. Sustaining a globally tight monetary policy for an extended period will help manage inflationary expectations and make the development of a wage-price spiral less likely.

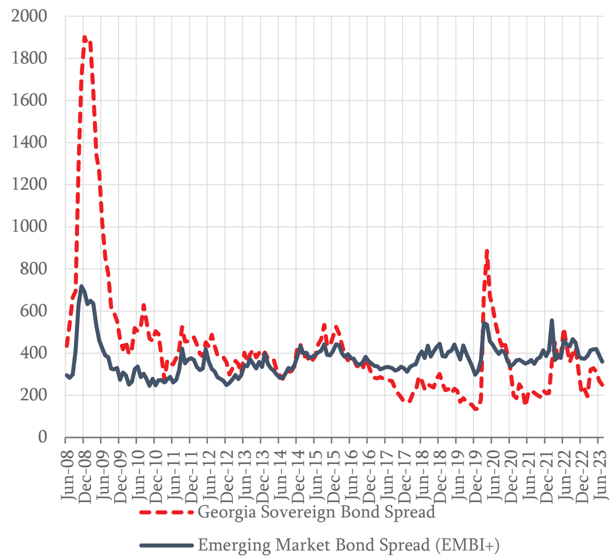
The stability of the global financial system faced significant challenges this year. In March 2023, the financial difficulties experienced by two American regional banks, resulting from rapid deposit outflows, led to significant turmoil in the banking sector. Within a week, amid a loss of market confidence, the Swiss government implemented a state-backed merger of Credit Suisse with UBS. Credit Suisse was a globally systemic bank and such a merger was the first of its kind since the Global Financial Crisis. As a result of these events, the price of American and European banking assets dropped significantly. However, rapid, large-scale actions implemented by the regulators in the USA and Switzerland made it possible to contain financial stability risks. These developments nonetheless uncovered existing vulnerabilities in the global financial sector and revealed the possibilities of the realization of such risks in the backdrop of globally tightened monetary policy. The turmoil in the banking sector also showed the increasing role of mobile applications and social media in speeding up the spread of the crisis. It is also noteworthy that the aforementioned events did not have significant implications for the banking systems of emerging market and developing economies. As a rule, the banking sectors of developing countries are less vulnerable to interest rate risk and they rely on more

Figure I.2. Global inflation forecasts



Source: WEO database

Figure I.3. Sovereign bond spread[3] (basis points)



Source: Bloomberg

3 This takes into account not only the yields on government bonds, but also the yields on securities issued by state corporations (railways, oil and gas companies). The latter, in addition, may be characterized by individual risks that can change the sovereign risk assessment.

stable sources of financing. However, the level of deposit insurance in these countries is more limited and the role of the banking sector in the overall financial sector is larger.

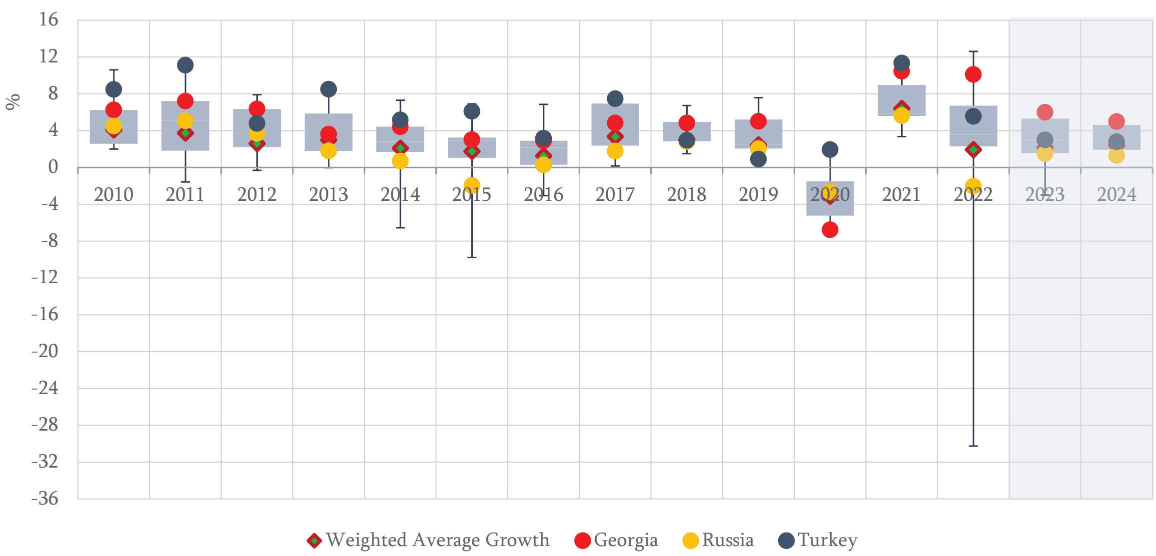
The uncertainty surrounding economic forecasts remains high. In the wake of globally tightened monetary policy, inflation started to gradually decrease, while global economic growth slowed down. According to the IMF's forecast, economic growth will stabilize at around 3% over 2023-2024. The timely responses of regulators in the United States and Europe significantly reduced risks of the spread of a banking crisis, thereby contributing to the recovery of global financial stability. However, the uncertainty surrounding economic forecasts remains high and possible developments are mostly negative. In case of a prolongation of the Russia-Ukraine war and a worsening of the geopolitical conflict, global inflation might prove more rigid, which would require an additional tightening of monetary policy or maintaining it at a tightened stance for longer. This will further slow global economic growth and stimulate financial stability risks across the world. The uncertainty surrounding the forecasts is further exacerbated by the dynamics of the economic recovery in China. On the one hand, fast recovery in China might support increasing energy prices; while on the other hand, a slowdown in China could further exacerbate the existing stress on the Chinese real estate market and create global financial stability risks. These circumstances pose important challenges to central banks around the world.

Global financial conditions have been characterized by changing dynamics over the past year. Amid the rising asset prices observed from October 2022, financial conditions started to loosen slightly in developed, as well as in emerging and developing economies (see Figure I.3). These dynamics also partially reflect the gap between monetary policy communication by central banks and the expectations of financial markets. Central banks clearly signaled an additional tightening of monetary policy, while financial market participants expected a loosening of the monetary policy. Global financial conditions tightened again to some extent in March 2023 during the period of banking stress, however, these conditions were soon reversed. In this environment, the rigidity of global inflation is even more noteworthy, as it could cause the rapid repricing of financial assets and a tightening of financial conditions.

The high debt servicing burden continues to represent a significant challenge for emerging market economics. The public debt-to-GDP ratio increased substantially in the majority of countries amid the COVID-19 pandemic as a result of the unprecedented fiscal support provided during that time. In the wake of increased interest rates, the debt servicing burden for emerging market economies remains significant. Such debt vulnerability is further exacerbated by the global economic slowdown and the tightening of financial conditions.

Against the backdrop of geopolitical tensions in the region and changes in commodity prices on international markets, the dynamics of economic activity in the countries of the region are heterogeneous. In the second half of 2022, economic activity improved slowly in Türkiye, but that growth slowed in the first half of 2023.

Figure I.4. Growth distribution of the main trading partners of Georgia



Source: WEO database, NBG, NBU

This was mainly driven by the earthquakes that occurred in Türkiye in February, which in addition to extensive casualties, resulted in infrastructural damage and supply delays in the region. In the second quarter of 2023, Türkiye's economy somewhat recovered, mainly as a result of strong internal demand and increasing exports of goods. Against the record devaluation of the Turkish lira, the elevated inflation had gradually been receding over the past year, although it remained at 38.2% as of June 2023. Given these circumstances, the Central Bank of the Republic of Türkiye decided, for the first time in a long period, to tighten its monetary policy; however, the increase in the interest rate was smaller than the market anticipated and thus translated into a further depreciation of the Turkish lira.

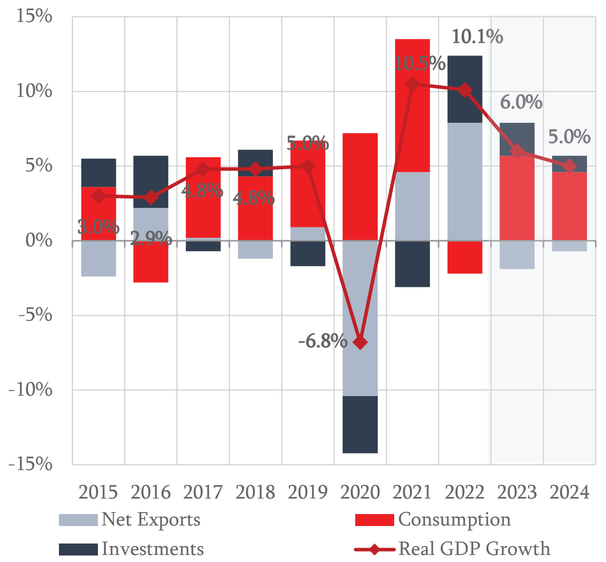
Due to economic sanctions imposed by Western countries and war-related costs, Russian economic activity remained at a deteriorated level in the second half of 2022, while slightly improving in the second quarter of 2023. The improved dynamics were a result of increased industrial production and retail sales. On the other hand, the business environment, level of investments and the external sector all continued to worsen.

Given the high migration of citizens from Russia, economic activity in the second half of 2022 increased significantly in Armenia, which was a result of the revival of the services sector. In the first half of 2023, economic growth in Armenia slowed a little, being adversely affected by ongoing military tensions with Azerbaijan over the Nagorno-Karabakh region. This, in turn, negatively affected the economy of Azerbaijan. In the second half of 2022, economic activity in Azerbaijan picked up amid improving growth rates in the oil and non-oil sectors. However, growth rates slowed slightly in the second quarter of 2023 in the wake of a decline in retail sales and fixed investment. High activity was maintained in the non-oil sector.

The war waged by Russia has had devastating consequences for Ukraine. Many people have died, critical infrastructural facilities have been destroyed and, as a result, potential GDP has also declined (see Figure I.4).

According to the NBG's forecasts, alongside the improvement in economic potential, real GDP is expected to grow by 6% in 2023. In the first half of 2023, economic growth increased more than expected in Georgia and, according to preliminary estimates, annual growth is estimated at 7.6%. This was supported by strong external demand and inflows. With the increasing productivity of factors of production and rising investments, economic potential also improved.

Figure I.5. Decomposition of real GDP growth by expenditure, YoY



Source: NBG

Considering these trends, the forecast of economic growth was revised upward to reach 6% for the year as a whole. Meanwhile, inflation has a clear downward trend. The appreciated exchange rate, decreasing commodity prices on global markets and tightened monetary policy all contributed to inflation declining to 1.6% in the second quarter of 2023. According to the NBG's forecast, inflation will remain below the target level until the end of the year. However, it should be noted that, similar to the global economic forecast, estimates related to Georgia are characterized by high uncertainty.

The global energy crisis has emphasized the importance of structural issues, including energy independence, the transition to renewable energy, climate change and related financial stability risks. Following the Russia-Ukraine war and the sanctions imposed against Russia, there was a significant increase in the price of energy. Despite the fact that energy prices have been characterized by a decreasing trend, the production of coal increased globally in 2022. This was supported by the measures taken by Europe to decrease dependence on Russian energy. These developments slowed down the transition to renewable energy sources, a situation that has been exacerbated by the fact that Russia is one of the main suppliers of the metals needed for the production of renewable energy. Amid decreasing supply and increasing demand, the price of these metals increased significantly in 2021-2022, which further restricted the transition to renewable energy sources and worsened climate change and related financial stability risks.

Box 1. Assessment of biodiversity-related financial risks and their effect on the Georgian banking sector

Biodiversity loss, the decline in the variety and abundance of life forms on Earth, has far-reaching implications for the environment, economies, and societies. This phenomenon also poses significant challenges to the stability and resilience of the global financial system. The complex interconnection between biodiversity and finance stems primarily from the critical role biodiversity plays in providing essential ecosystem services that underpin economic activities.

Biodiversity loss can lead to financial risks through several channels, including its direct impacts on companies, such as decreased productivity, increased operational costs, and indirect impacts on financial institutions, such as reduced asset values and increased credit risks. As in the case of climate-related financial risks, biodiversity-related financial risks are categorized into physical and transition risks. Physical risks stem from the dependencies of economic activities on biodiversity and ecosystem services, while transition risks arise from the shifts in regulatory landscapes, changes in technologies and consumer preferences. Financial institutions may face physical and transition risks directly as well as indirectly through their operational activities – like lending, investment, and advisory services – that threaten financial and economic stability.

Understanding the dynamics between biodiversity loss and financial systems is crucial for developing strategies and designing policies to mitigate risks while fostering sustainable economic growth. Therefore, central banks are increasingly recognizing their role in assessing biodiversity-related financial risks. For this reason, the National Bank of Georgia has published a paper titled "Biodiversity-related Financial Risks – why it matters and how can we measure them? Case study of Georgia".[4] The research assesses biodiversity-related financial risks in Georgia and provides quantitative estimates of potential dependencies and impacts of the financial system on biodiversity and ecosystem services. The methodology analyzed the exposure of the financial sector to different economic sectors, which was determined on the basis of data on commercial banks' lending obtained from the NBG. The economic sectors were classified according to the two-digit Nomenclature of Economic Activities (NACE REV 2) and were matched with the ecosystem dependency risk materiality ratings extracted from the ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) assessment tool and financial data on Georgian commercial banks' lending to legal entities.

To measure the level of direct dependency of each production process on ecosystem services, the ENCORE assessment framework assigns dependency (or materiality) scores ranging from 'very low' to 'very high'. The construction of the levels of dependency for each production process in the ENCORE database is the product of two factors: the degree of disruption to production processes if the ecosystem service were to disappear, and the expected financial losses that would result. In terms of impacts, the rating assesses the severity of the environmental damage, its occurrence throughout the business cycle and production locations, and the feasibility of redesigning production activities to mitigate the negative impact both operationally and financially.

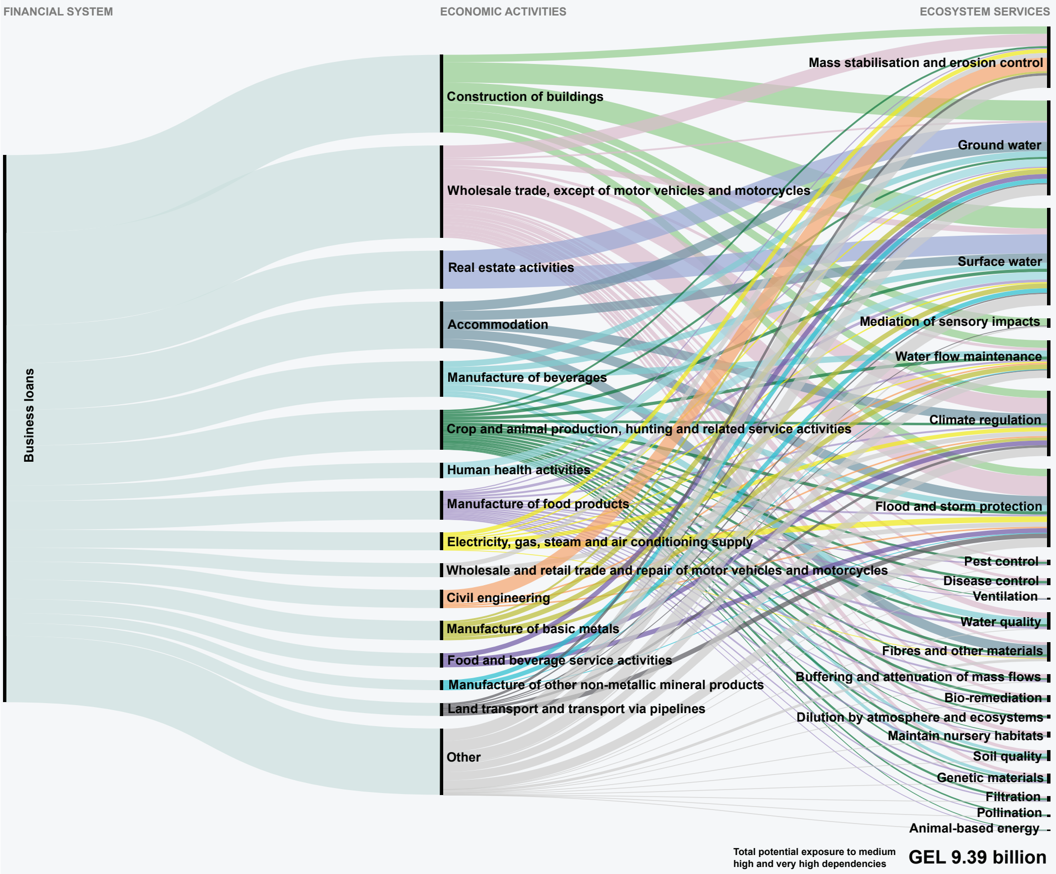
To account for the criticality of the dependency on biodiversity and ecosystem services, only materiality ratings classed as 'moderate', 'high' and 'very high' were analyzed. Furthermore, due to the fact that the ENCORE assessment framework offers limited variation in materiality ratings within the impacts database, and to account for the severity of the impacts on biodiversity, the impact analysis was conducted on the materiality ratings categorized as 'high' and 'very high'.

According to the main findings, around 46% of Georgian commercial banks' lending portfolios to legal entities could potentially be exposed to physical

4 See https://nbg.gov.ge/en/publications/researches

risk due to their significant dependence on one or more ecosystem services (see Figure B1.1). The largest dependency of the portfolio was found for the following ecosystem services: surface water (8.12%), ground water (7.9%), flood and storm protection (6.54%), climate regulation (5.45%), and mass stabilization and erosion control (5.73%).

Diagram B1.1. The financial sector and ecosystem services dependencies



Source: NBG.

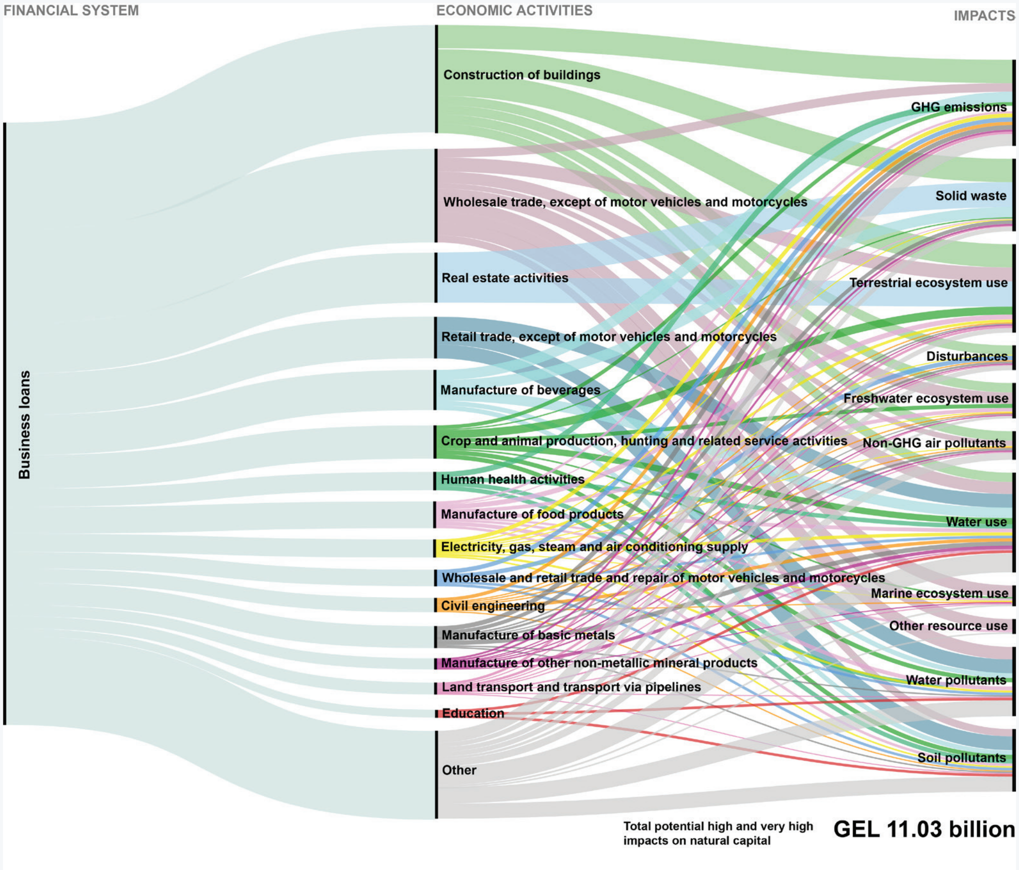
As for impacts, the results show that approximately 55% (totaling GEL 11.03 billion) of the business loan portfolio analyzed is channeled to sectors that have a high or very high impact on various natural assets and ecosystem services (see Figure B1.2). Of the impact drivers, the following are those most individually impacted through commercial lending by Georgian banks: water use (8.8%), terrestrial ecosystem use (7.87%), GHG emissions (7.67%), solid waste (6.45%), water pollutants (6.17%), and soil pollutants (5.57%).

The business lending portfolio of Georgian banks with high or very high impacts are mainly concentrated in four sectors: construction of buildings, wholesale trade, real estate activities, and crops and animal production. This is due to both the size of lending exposure and sectoral characteristics.

This is the first assessment of biodiversity-related financial risks for the Georgian banking sector that examines their lending exposure to those economic sectors that depend on ecosystem services and impact biodiversity. According to the results, Georgian commercial banks are exposed to a broad range of biodiversity-related physical and transition risks. However, it should be mentioned that the research paper faces certain limitations, including limited data granularity and broad materiality scores/ratings. Therefore, the results obtained should be seen as indicative of potential risks rather than as definitive conclusions. In order to obtain more accurate and concrete results, further analysis and more detailed data are required.

A detailed description of the methodology, results and their possible application are presented in the paper, which is available on the NBG's website.

Diagram B1.2. The impact on the biodiversity of financial sector lending



Source: NBG.

II. Vulnerabilities and Risks Affecting Financial Stability

External Vulnerabilities

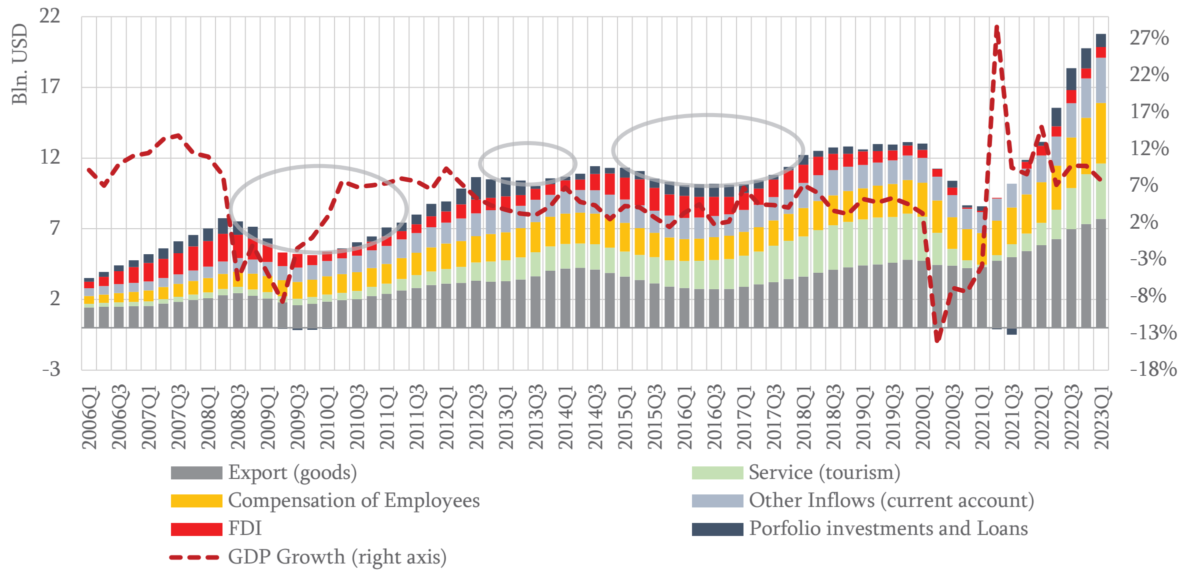
Georgia is a small open economy characterized by a high level of dollarization, a current account deficit, and dependence on international financial inflows. This makes the country's financial system vulnerable to global economic and financial developments. With the revival of the global economy in 2021, the Georgian economy started to recover and has since been characterized by high growth. This growth was primarily driven by migration and financial inflows resulting from the Russian-Ukraine war, as well as strong aggregate demand.

Despite the receding inflationary pressures and high economic growth in Georgia, financial stability risks stemming from the external sector persist. These include the high inflationary environment in developed economies, tightened financial conditions globally, the worsening economic outlooks of trading partner countries, and uncertainty surrounding the duration and magnitude of the Russian-Ukraine war. Consequently, risks arising from macro-financial conditions remain significant. These include a potential decrease in external demand and sudden financial outflows in Georgia and the region, which might be followed by abrupt currency depreciation, a rise in the external debt service burden and a widening of the current account deficit in the face of globally tightened financial conditions.

Since 2021, the Georgian economy has been characterized by robust growth. This was further supported by external inflows and an increase in investments in 2022. However, with rising inflows, external sector risks became more significant. The high economic growth in Georgia has been driven by strong aggregate demand and the recovery of inflows, particularly the increase in balance of payments transactions (see Figure II.1). Despite the economic slowdown observed in trading partner countries, external demand remained strong in the first half of 2023, which supported a considerable rise in exports. Thus, despite the decreased competitiveness caused by the appreciation of the GEL, exports rose by 14.8 percent in the second quarter of 2023. Portfolio investments also increased in 2022, however a drop was observed in the first quarter of 2023. Since 2022, the compensation of employees has been characterized by high growth; income from services and foreign direct investment also recovered and reached pre-pandemic levels. With the end of the pandemic and the onset of the war in Ukraine, the number of international visitors and migrants increased drastically in Georgia, which was followed by an unprecedented surge in revenues from international travel. While the number of visitors is still below the level of 2019, the income from international travel doubled in the first quarter of 2023 and exceeded the pre-pandemic level by 38 percent. The rise in financial inflows, recovery of investments, and the revival of international trade all supported Georgia's economic growth and the appreciation of the national currency. Amidst high external inflows, the current account deficit decreased in the first quarter of 2023 and reached 3.2 percent.

With high uncertainty on global and regional markets, external sector risks might affect Georgia's financial stability through several major channels. In light of the ongoing war in Ukraine, global economic recovery in 2023 is characterized by high uncertainty. Following the monetary policy tightening, global inflation started receding, but proved more persistent than expected. A prolongation of the war and aggravation of the full-scale conflict could lead to additional disruption of supply chains and a new wave of sanctions against Russia, which could result in additional inflationary pressures and a worsening of the macro-financial environment in the region. These factors would have a negative effect on the financial stability of Georgia. In particular, trade restrictions and rising energy and food prices would delay the easing of tightened monetary policy stances globally. Tight financial conditions in developed countries would support capital outflow from emerging and developing countries, including those in the region. This would put pressure on currency depreciation and increase the external debt burden. Moreover, in 2023 economic growth and external demand might decrease

Figure II.1. Balance of Payment inflows in Georgia[5]



Source: NBG, GeoStat

due to tight monetary conditions, which would have a negative effect on Georgia's growth and lead to a slight worsening of the current account balance, which will be partially offset by fiscal consolidation.

However, it should be noted that the risks stemming from increased financial inflows from Russia are balanced. On the one hand, sudden outflows could have a negative effect on the local currency and, with high interest rates globally, investment level might decrease. These developments, given the high level of dollarization in Georgia, could trigger financial stability risks. On the other hand, it is possible that high inflows might normalize gradually and thus such risks related to sudden outflows might not materialize.

Georgia's external demand will depend on the economic situations of trading partner economies and on the level of inflows from Russia in the region. In 2022, the remittances from Russia and revenues from services increased significantly in the majority of neighboring countries. A prolongation of the war could support money inflows in neighboring countries, having a positive effect on their economic growth and sustaining a high level of external demand in Georgia. However, the normalization of inflows is inevitable, which would support the materialization of external sector risks.

Georgia's economy significantly depends on developments in the EU, Russia, and Türkiye. However, since 2022, the rise of Russia's share in inflows has been particularly pronounced. As of the first quarter of 2023, the share of the EU, Russia and Türkiye in Georgia's exports was 34 percent, which is 7.5 percent lower compared to 2021. The declining trend indicates the diversification of export markets. However, the share of these countries in external inflows increased in 2021-2022, which was mainly driven by Russia (see Figure II.2). Specifically, in the first quarter of 2023, Russia's share of foreign direct investments, exports of goods and services, and transfers in total inflows rose by 15 percent compared to the average value in 2021 and reached 29 percent. Remittances from Russia also increased by almost 10 times to reach a record high, while revenues from international trade quadrupled with the recovery of tourism and high levels of migration. In addition, there has been a significant rise in the number of foreign-owned companies registered in Georgia and foreign direct investment also recovered starting from the second quarter of 2022. Revenues from exports of goods from Russia have remained relatively stable. With rising tensions and military mobilization in Russia, there is a possibility of a new migrant wave in Georgia, which would prolong the financial inflows from Russia. Moreover, with some migrants staying in Georgia for longer, migrant outflows might take place gradually, decreasing the probability of sudden financial outflows. However, increasing dependence on inflows from Russia creates financial stability risks. As for the inflows from the EU and Türkiye, their share in GDP rose by 1 percent in the first quarter of 2023, compared to the past two years (see Figure II.2). This increase was mainly caused by a rise in foreign direct investments.

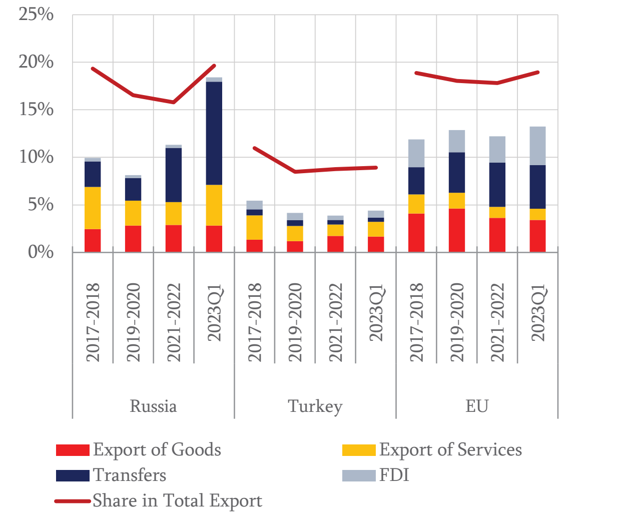
5 Calculated as the rolling sum of the past four quarters to nominal GDP.

Overall, Georgia is significantly dependent on inflows from the abovementioned countries, especially from Russia. Economic recovery in neighboring and trading partner countries is progressing unevenly and growth is expected to slow down further in 2023 against the backdrop of globally tightened financial conditions and inflation. Considering these factors, there is a risk of a potential decline in remittances as well as income from exports of goods and services, which will negatively affect the country's economy and its financial stability. The materialization of these risks will largely depend on developments related to the Russian-Ukraine war, the rate of global economic recovery and the situation in Georgia's trading partners.

As a result of the increase in foreign inflows and the stabilization of the national currency, the current account deficit decreased significantly. In 2022, high inflows narrowed the current account deficit and a current account surplus was recorded for the second time in recent history. This was supported by strong foreign demand and income from international visitors and remittances. Compensation of workers from abroad also played a positive role in reducing the deficit.

Compared to the average of the past two years, the share of debt-creating flows in financing the current account deficit decreased significantly in the second half of 2022. Meanwhile, the share of non-debt creating flows increased (see Figure II.3). According to a savings-investment analysis, the narrowing of the current account deficit in this period was mainly driven by an increase in savings and a reduction of the fiscal deficit. FDI, which grew by 99 percent in the first quarter of 2022, also played a role in the improvement of the current account balance. However, the annual growth of FDI fluctuated in subsequent periods and even turned negative.

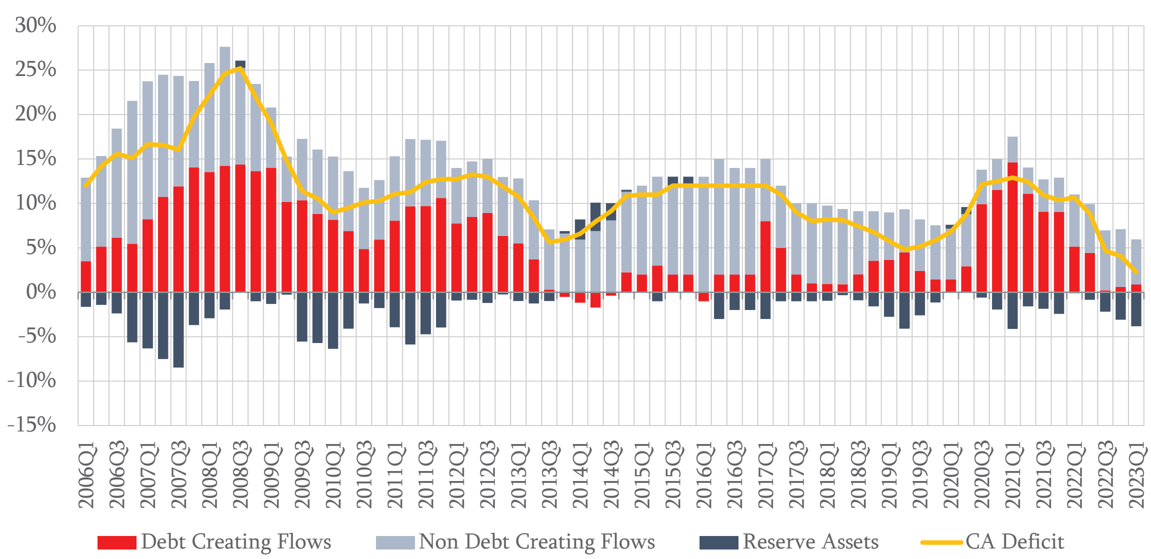
Figure II.2. Exposure to major external markets (flows expressed as a share of GDP)



Source: NBG, GeoStat

In 2023, the current account balance will largely depend on the situation in the region. In the event of worsened external conditions, the deficit could deteriorate. With the anticipated slowdown of economic growth and the weakening of migration flows in trade partner countries, the current account deficit is expected to widen slightly in 2023. The higher-than-expected increase in monetary policy in developed countries and rising risk premia in developing countries are also noteworthy. These could contribute to financial outflows and, consequently, lead to a worsening of the current account deficit. In addition, reduced competitiveness caused by currency appreciation could have a negative effect

Figure II.3. CA deficit and sources of financing (% of GDP)



Source: NBG

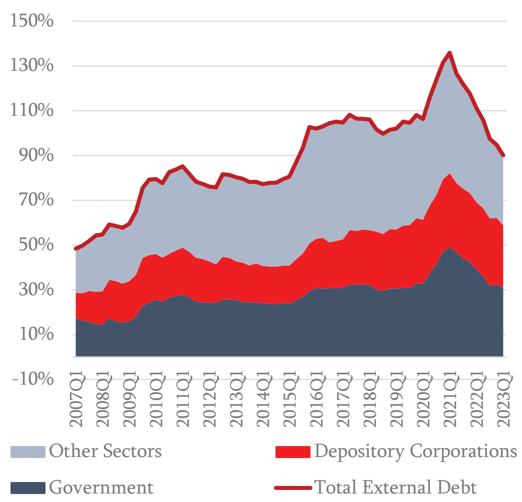
on the current account deficit in 2023.

Deterioration in the macroeconomic environment amidst the ongoing war in Ukraine could increase risks in the region and lead to a rise in the sovereign risk premium. This would have a negative impact on business sentiment and investments and would lead to lower-than-expected economic activity. It would also negatively affect interest rates on foreign currency funding, increase the debt servicing costs of short-term external debt, and create refinancing risks. However, the fact that Georgia has a low share of short-run debt decreases these risks.

Despite tightened global financial conditions, the share of external debt to GDP and debt service decreased significantly in 2022. Similar to the past year, this was supported by currency appreciation and high GDP growth. Despite the fact that the volume of external debt had been increasing up to the first quarter of 2023, the appreciation of the local currency decreased the level of debt expressed in GEL. The decline of the external debt-to-GDP ratio was supported by high GDP growth and the exchange rate effect (see Figure II.4). However, a slowdown of economic growth or currency depreciation could lead to sudden rise in external debt to GDP, as had occurred during previous crises.

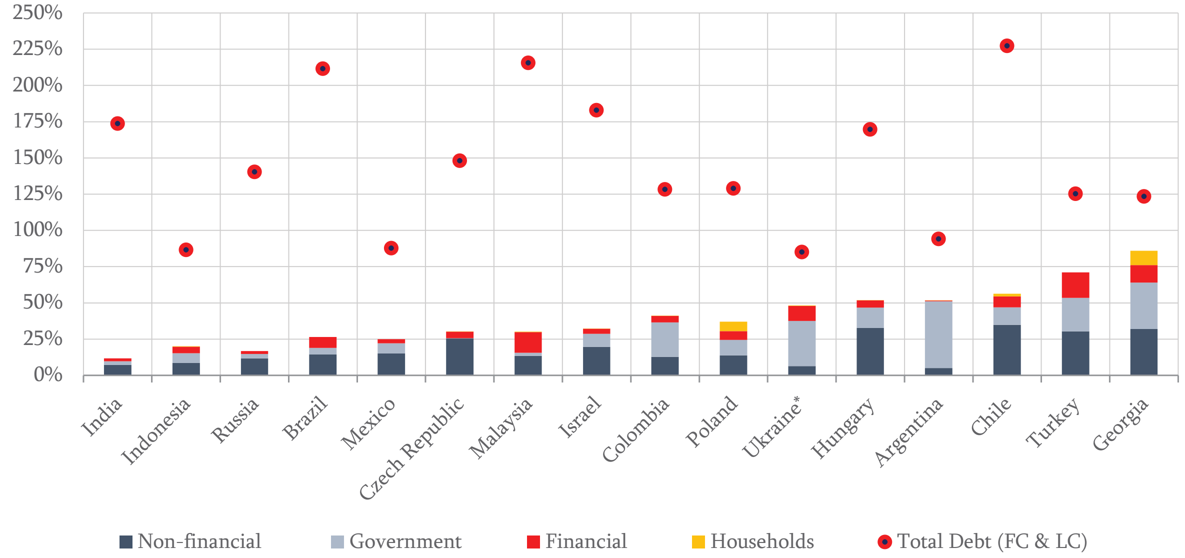
In 2022, the share of foreign currency debt decreased slightly, reaching 88.7 percent in the first quarter of 2023, which was largely driven by currency appreciation. However, the level of foreign currency loans is still high and is thus vulnerable to exchange rate volatility. To decrease exchange rate risk, it is important to increase the share of debt denominated in the local currency. In the event of sudden capital outflows, there is a risk of the depreciation of the local currency, which would increase debt-servicing costs, put pressure on international reserves, and create debt sustainability risks. In addition, a possible rise in the risk premium could increase the interest rate of foreign currency-denominated funds, creating additional refinancing risk and leading to a higher burden of foreign debt. It should be noted that in the first quarter of 2023, the share of short-term debt increased by 4.2 percent compared to the same period in 2022 and reached 24.1 percent, which amplifies the risk of a risk premium repricing and refinancing.

Figure II.4. External debt (% of GDP)



Source: NBG

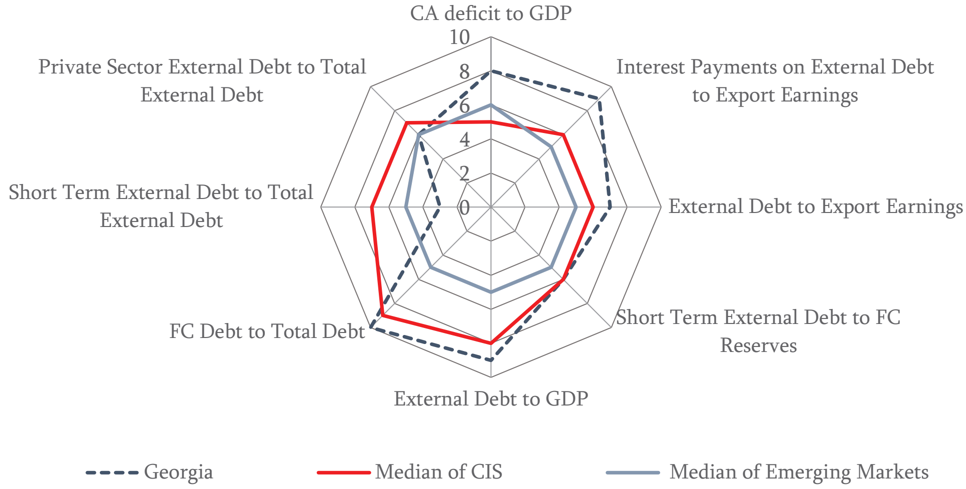
Figure II.5. Foreign currency debt by type of borrower: Cross-country comparison (% of GDP, as of 2022Q4)



Source: NBG, International Finance Institution, Statistical data of selected countries

In 2022, the debt-to-GDP ratio decreased in Georgia, as well as in comparable countries. However, among such countries, Georgia has one of the highest shares of foreign currency-denominated loans for almost all types of borrowers. In the beginning of 2021, the global debt-to-GDP ratio reached a peak. The sizeable fiscal measures adopted to counteract the pandemic-induced recession and rising interest rates in developed countries contributed to refinancing risks and debt vulnerability. However, the global debt-to-GDP ratio subsequently decreased by approximately 12 percent in 2022 and reached 338 percent. These dynamics differed across different country groups: the decline was most pronounced in developed countries, especially in Europe; while for developing countries, there was a small, 2 percent, increase in the debt-to-GDP ratio, which was mainly driven by China. The increase in debt servicing costs in developing countries was driven by currency depreciation. However, in Georgia and the majority of comparable countries, the share of foreign currency loans decreased in 2022. While Georgia's total debt is not significantly higher than that of other countries, and Georgia's debt-to-GDP ratio declined substantially, its share of foreign currency loans remains one of the highest across all borrower groups, especially for households (see Figure II.5). However, a sizable share of Georgia's external debt is borrowed from international financial institutions on concessional terms, which implies a lower debt burden compared to the baseline.

Figure II.6. External vulnerability indicators relative to emerging markets and CIS countries (as of 2022)[6]



Source: NBG, IMF, WB

Despite the fact that many external vulnerability indicators have improved since last year, Georgia's external vulnerability remains high compared to the median of CIS countries and emerging market economies (EMEs). Although Georgia saw a larger decrease in its external vulnerability level compared to other CIS countries and EMEs, it still exceeds the median of these country groups (see Figure II.6). In 2022, almost all of the indicators for Georgia and CIS countries improved, while for EMEs, certain indicators increased, such as short-term debt to foreign currency reserves and short-term debt to total debt, hinting at debt sustainability issues. In the case of Georgia, improvements were observed for indicators such as the external debt-to-GDP ratio, the ratio of short-term debt to foreign currency reserves, and the ratio of external debt to export earnings. These improvements were largely driven by economic growth, the appreciation of the local currency, and the reserve management policies adopted by the NBG.

Nevertheless, Georgia's external vulnerability indicators still exceed the level of EMEs and CIS countries (see Figure II.6). Specifically, Georgia has a high level of current account deficit, and high ratios of interest payments to export earnings and share of foreign currency debt in total external debt. However, the favorable maturity structure of external debt in Georgia would reduce rollover risks should financial conditions tighten.

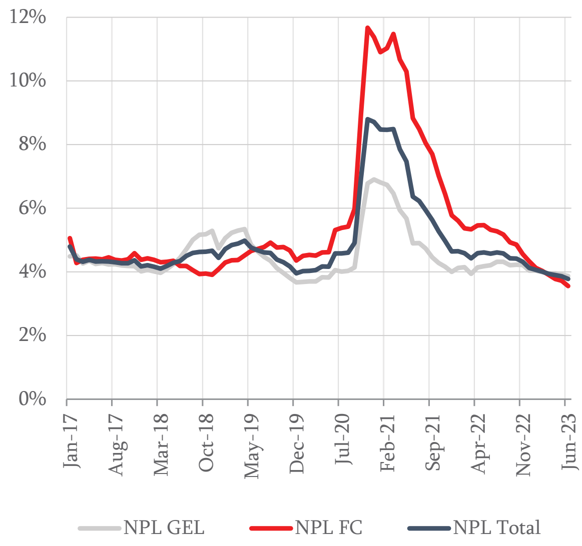
6 The rankings are based on global distributions of the corresponding indicators. A higher rank corresponds to higher vulnerabilities.

Household Sector Analysis

In 2023, the household non-performing loan (NPL) ratio slightly improved and credit risk remains at a low level, which reflects both the effect of households' improved economic conditions and, partially, the effect of the exchange rate appreciation. To some extent, household creditworthiness has been improved by the dynamics of average income growth. However, the prolongation of tightened financial conditions along with globally high inflation will affect the household debt service burden. It should be noted that although household credit growth has slowed down, it remains at a level worthy of attention. Furthermore, despite the declining tendency of dollarization, the currency risk of non-hedged borrowers is still significant for households. However, it should be noted that targeted macroprudential policy prevents the accumulation of such risks.

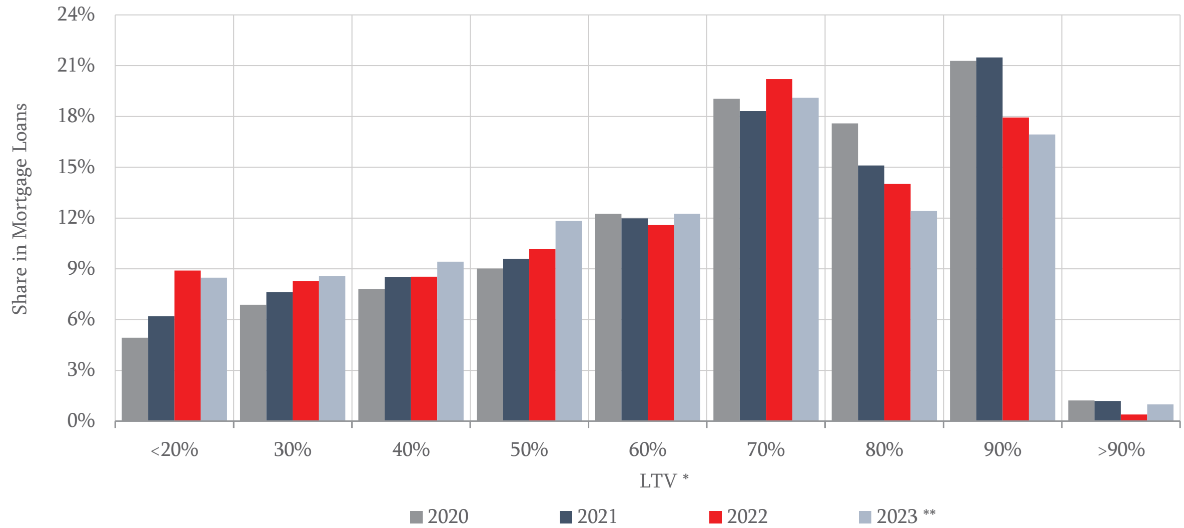
Household credit risk remains at a low level. The growth of economic activity has improved household creditworthiness, which helps maintain the NPL ratio at a low level. It should be noted that from the second half of 2022 the NPL ratio improved remarkably for foreign currency household loans (see Figure II.7), which partially reflects the effect of the exchange rate appreciation. As a result of the responsible lending regulation, the distributions of the payment-to-income (PTI) and loan-to-value (LTV) ratios are healthy, which diminishes the risk of default for household loans as well as the potential credit losses in the event of default (see Figure II.8). According to the distribution of the payment-to-income ratio, households have the necessary buffers to overcome economic and financial stress (see Figure II.9).

Figure II.7. Household non-performing loan ratio



Source: NBG

Figure II.8. Distribution of the LTV ratio



* Distribution of LTV ratio is constructed based on the quantity of loans issued during the year.
** The value in 2023 includes mortgage loans issued in the first and second quarters.

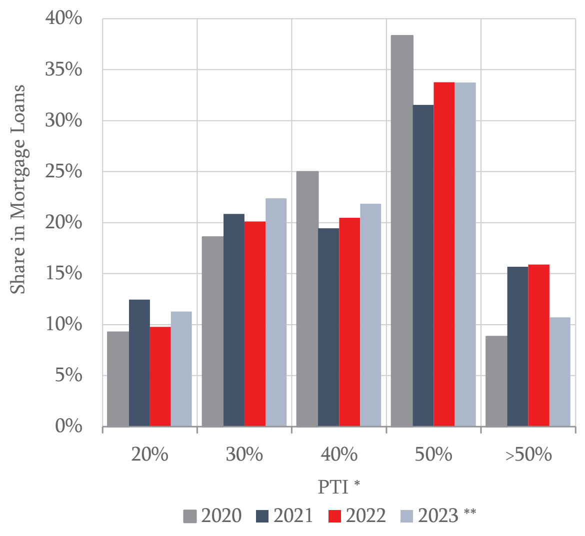
Source: NBG

The average wage continues to grow which, to some extent, improves households' creditworthiness. In 2022, high inflation especially affected the creditworthiness of low-income borrowers. The effects of high inflation were balanced by the wage increase in the labor market. In 2022, the annual wage growth was 17.4 percent (see Figure II.10). This increase might indicate the convergence of wages with increased prices, and no clear signs of the development of a wage-price spiral are noticeable.[7] This is also justified by the fact that annual inflation has a declining trend and is currently below the target level. In the second quarter of 2023, the annual growth of average wages was 17.1 percent. Alongside the decrease of inflation, this should positively affect households' economic conditions; however, the current level of unemployment is noteworthy, especially when considering the existing low level of labor force participation. After the pandemic and alongside the economic recovery, employment indicators improved: in the second quarter of 2023, unemployment declined compared to the level of the previous year and amounted to 17 percent.

On the other hand, prolonged maintenance of tight financial conditions in response to high inflation is, considering the high level of dollarization, reflected on household creditworthiness. As a result of the NBG's policies to promote larization, household credit dollarization has a declining trend, but remains at a level worthy of attention. The interest rate risk of such borrowers has increased because tightened financial conditions in response to globally high inflation can negatively affect borrowers' creditworthiness. The risks coming from increased US dollar and euro interest rates is especially significant for floating-rate loans. In addition, it is expected that the European Central Bank and the US Federal Reserve will both keep tightened monetary policy stances in order to bring inflation down to the target level. It should be noted that the appreciation of the national currency has a positive effect on borrowers, because the recent appreciation trend of the exchange rate partially softens the debt service burden for FX borrowers. However, considering the floating exchange rate regime and the current dollarization level, currency risk remains an important challenge for households.

7 As the May 2023 Monetary Policy Report states, "Although wages have been increasing since 2022, which opened up concerted discussion about the possibility of a wage-price spiral, it could be that case that we are observing the catch-up process against the background of the recent divergence between wages and prices." See Box 1, Monetary Policy Report, May 2023.

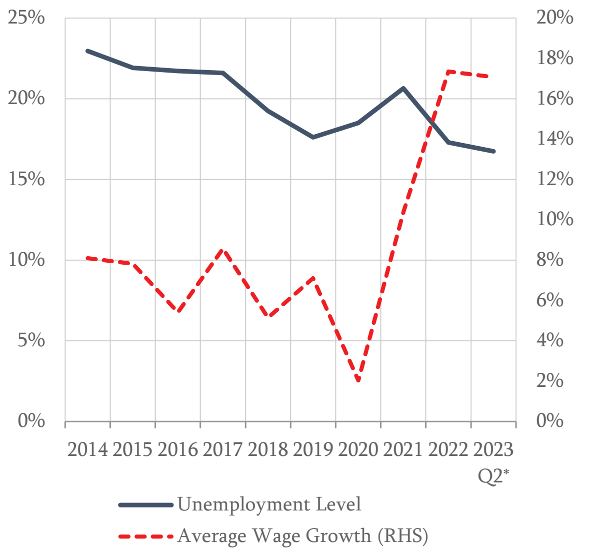
Figure II.9. Distribution of the PTI ratio



* Distribution of the PTI ratio is constructed based on the quantity of loans issued during the year
** The value in 2023 includes mortgage loans issued in the first and second quarters.

Source: NBG

Figure II.10. Labor market indicators: unemployment level and growth of the average wage (YoY)

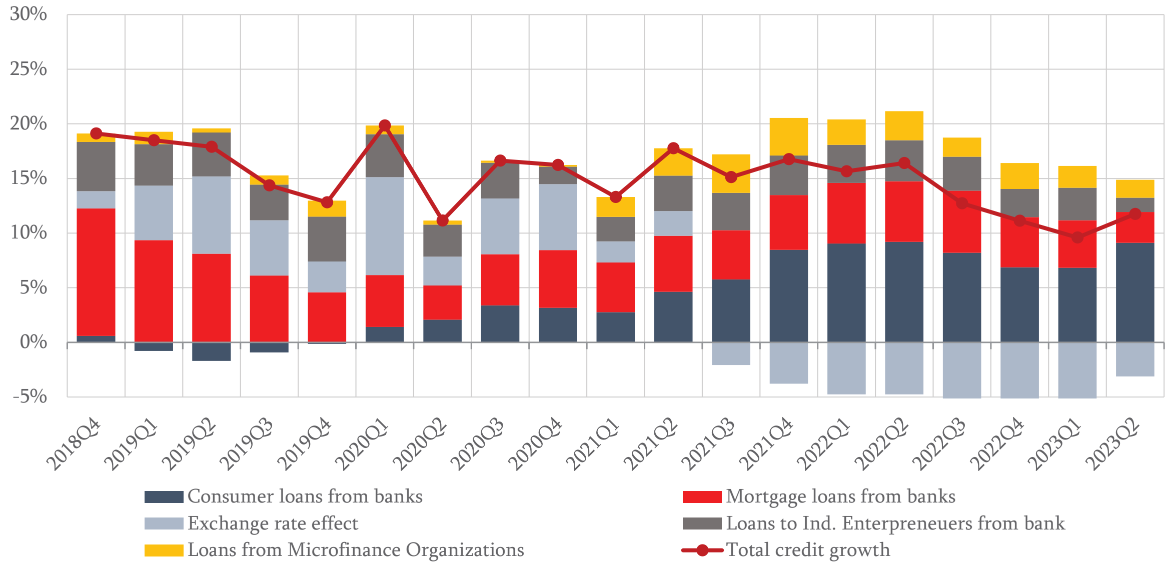


* For the second quarter of 2023, the average wage growth is calculated compared to the level of the second quarter of 2022.

Source: GeoStat

Household credit growth has declined, but remains at a noteworthy level. In the second quarter of 2023, household credit growth amounted to 11.8 percent. In light of tightened credit conditions, the share of consumer credit growth in the overall growth of household credit declined, but its growth rate remains at a comparably high level. The National Bank of Georgia thus continues to monitor market dynamics and will review the decision about the temporary restriction on the maximum maturi-

Figure II.11. Decomposition of households' annual credit growth



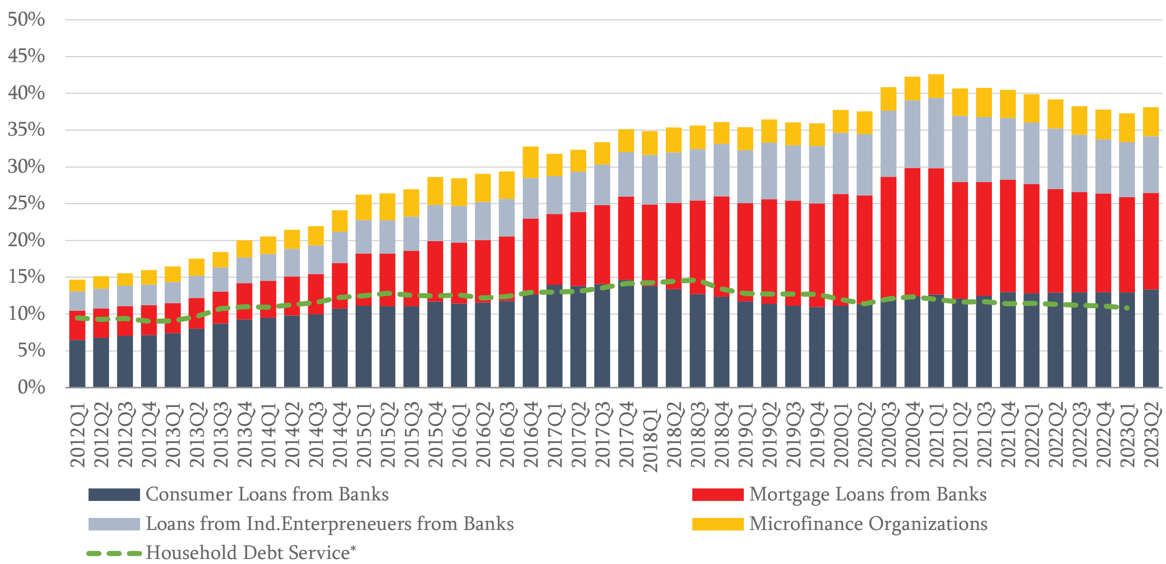
Source: NBG

ty of consumer loans (from four to three years) based on complex assessment. Otherwise, the loosening of regulations and monetary policy might again result in an excessive issuance of consumer loans, and a set of macroprudential policies might be necessary to prevent this. As for mortgage loans, as of the second quarter of 2023, their share in household credit growth amounted to 4.3 percent, which is 1.3 percentage points below the previous year's level.

The household debt burden has had a declining tendency in recent periods, being reflective of both the effect of high economic growth and the exchange rate effect. The household credit-to-GDP ratio amounted to 37.3 percent as of the first quarter of 2023, which is 2.6 percentage points below the previous year's level. Meanwhile, the share of mortgage loans in the household credit-to-GDP ratio declined from 15 to 13 percent. The decline of these indicators was supported by the appreciation of the lari exchange rate.

Despite the declining trend of household credit dollarization, the currency risk of non-hedged borrowers is still significant. Household credit dollarization has declined compared to previous periods and stands at 29 percent, but this is still a noteworthy level (see Figure II.14). A significant share of households holding FX loans have income in the national currency,

Figure II.12. Household debt to GDP ratio

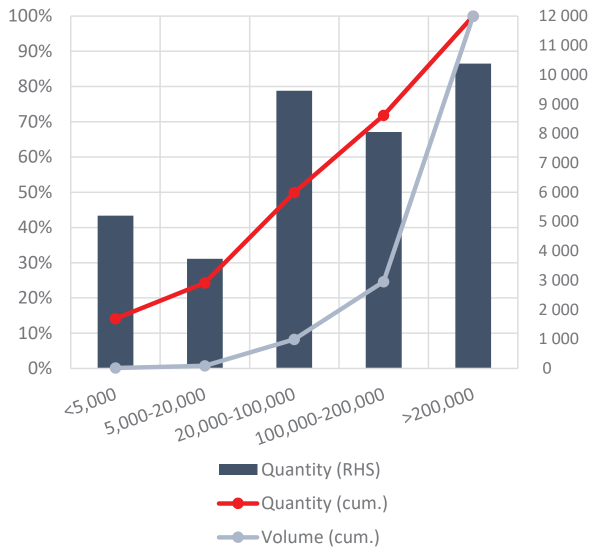


** Debt-service payments (interest and principal payments) / household disposable income*

Source: NBG

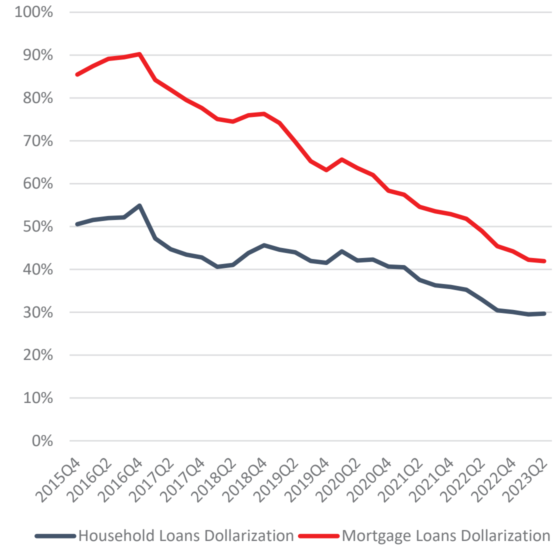
which exposes them to currency risk. As a result of the reduction of the maximum maturity on foreign currency mortgage loans from 15 to 10 years, the issuance of mortgage loans in foreign currency declined and, in the second quarter of 2023, mortgage loan dollarization amounted to 42 percent, which is 4.6 percentage points below the corresponding level of the previous year, excluding the exchange rate effect (see Figure II.14). It should also be noted that, according to the foreign currency loan portfolio statistics, in terms of quantity, a significant share of such loans are already largely amortized and the borrowers are left with small debts. Currently, there are 37,000 active borrowers (or groups of borrowers) with foreign currency loans in the banking system portfolio, with loans amounting to GEL 7.2 billion. For comparison, at the end of 2016 there were 140,000 such borrowers.

Figure II.13. Distribution of the foreign currency loan portfolio, June 2023



Source: NBG

Figure II.14. Household loan dollarization

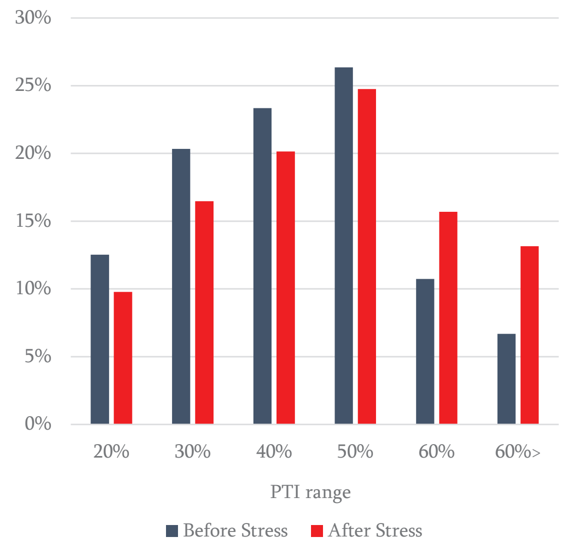


Source: NBG

Sensitivity Analysis of the Household Sector

Households' financial resilience against macroeconomic shocks is stable, which is a result of the macroprudential policies implemented by the NBG in previous periods. An analysis of household sector vulnerabilities shows that, in the case of a realization of the severe-risk scenario, which assumes a cumulative exchange rate depreciation of 40 percent and real income shock (see the Macro-Financial Risk Scenarios section of this report), household buffers would decrease significantly. However, it should be noted that the distribution of the payment-to-income ratio is still healthy. Borrowers would be left with sufficient financial resources to continue servicing their loans and also have some additional buffers. In the event of such an economic shock, low-income borrowers are particularly vulnerable since they have fewer buffers in place to overcome financial difficulties. Sensitivity analysis confirms that households remain vulnerable against exchange rate depreciation. Under the realization of such a scenario, the share of households with a PTI above 50 percent sharply increases.

Figure II.15. Sensitivity of household PTI to macroeconomic stress



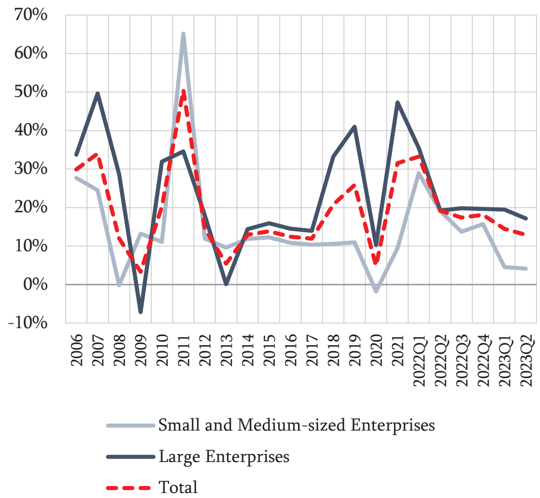
Source: NBG

Non-financial Companies

In the first half of 2023, despite the increased uncertainty as a result of the Russia-Ukraine war, non-financial companies continued to grow at a stable pace, with particularly high growth observed in large-sized companies. Moreover, sustainability has increased in almost all sectors for non-financial companies. It should be noted that in the background of the high economic growth of the last 2 years, by the first half of 2023 the share of companies benefiting from the pandemic-related grace period for loans neared zero. An increase in the share of bank loans in the financing of companies was again highlighted, while a decrease in the share of short-term debt in the total financing of non-financial companies has been observed. Globally tightened financial conditions, the significant dependence of companies on foreign sources of financing, and the high dollarization of liabilities all indicate the existence of certain risks in the sector. However, according to the sensitivity analysis of the corporate sector, under the moderate-stress scenario, the debt servicing capacities of companies remain at a healthy level, while the risks to their financial stability do not increase substantially.

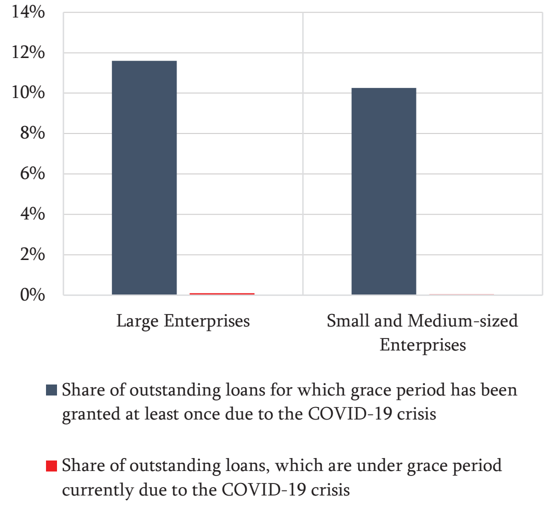
After overcoming the pandemic-related setbacks, and despite the increased uncertainty caused by the Russia-Ukraine war, non-financial companies continue to grow at a steady pace. In the first half of 2023, the turnover of large non-financial companies maintained a high growth pattern of around 19 percent, while the growth rate of small- and medium-sized enterprises was only 4 percent, with such companies being more sensitive to the base effect and thus slowing down significantly compared to 2022 (see Figure II.16). The latter segment is characterized by a relatively low level of market diversification and has limited risk-management capabilities, both of which makes such companies more vulnerable to external factors. Support measures implemented during the pandemic helped to maintain favorable financing conditions, reducing debt servicing and refinancing risks. As the economy recovered over the past 2 years, most of the companies that had been affected by COVID-19 recovered their revenues. Such an improvement was evident in companies of all sizes. As a result, in the first half of 2023, the share of companies benefiting from the pandemic-related loan moratoria was close to zero (see Figure II.17). However, uncertainty remains as a result of the Russia-Ukraine war, particularly for those companies whose trade relations are largely dependent on the Russian or Ukrainian markets. At the same time, against the backdrop of globally tightened financial conditions, companies that have taken loans in foreign currency face increased vulnerability to both possible fluctuations in the exchange rate and to an increase in interest expenses. In accordance with the above-mentioned risks, the state of borrowers should be constantly evaluated and analyzed. Banks should be cautious when financing companies that have taken an unhedged foreign currency loan, that are dependent on the market of only

Figure II.16. Annual growth in turnover by company size



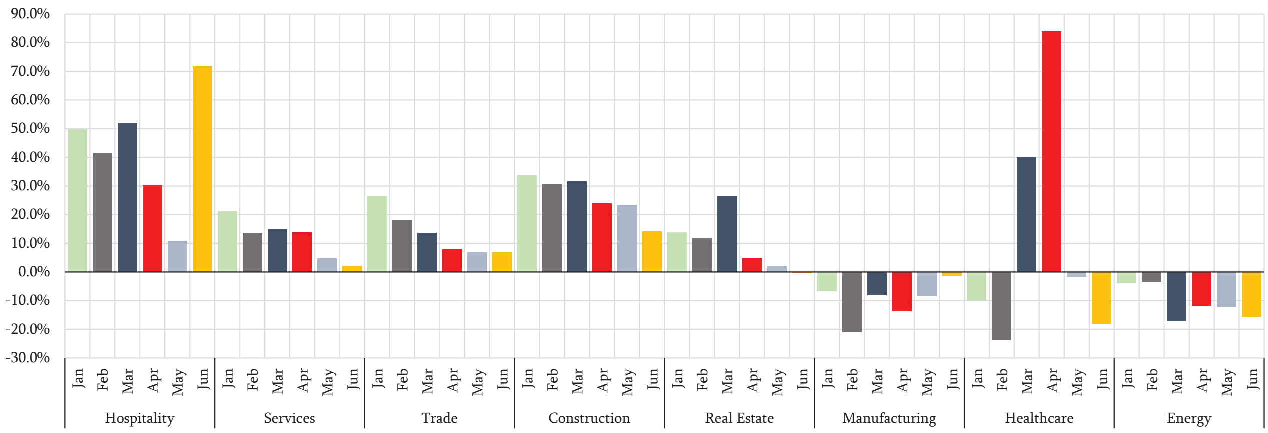
Source: GeoStat

Figure II.17. Share of company loans under repayment moratoria (as of 30 June 2023)



Source: NBG

Figure II.18. Annual change in turnover in selected industries (2023/2022)



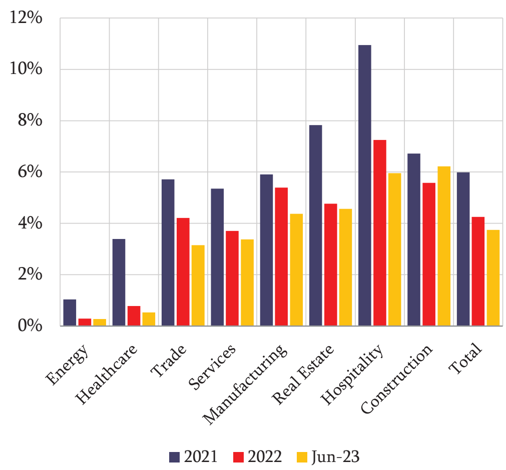
Source: Revenue Service of Georgia

one country, or that have a low chance of successfully dealing with potential obstacles.

The impact of the prolongation of the Russia-Ukraine war and accompanying supply chain disruptions on companies' financial conditions varies. However, a reduction in the share of non-performing loans was observed in almost all sectors, which indicates an improvement in their sustainability. The growth dynamics of companies' activities vary across sectors (see Figure II.18). Compared to the same period of the previous year, in the first half of 2023 there has been an increase in incomes in all sectors other than the manufacturing, energy and, to some extent, healthcare sectors. Nevertheless, the share of non-performing loans in each of these sectors continues to decrease. Compared to the end of the previous year, during the first 6 months of 2023, the total share of non-performing loans in non-financial companies decreased and fell below 4 percent (see Figure II.19). However, due to the Russia-Ukraine war, a growth of non-performing loans was apparent in the construction sector in the first half of 2023. This may indicate the impact of the rise in prices of intermediate goods and the increased costs of the labor force on the loan servicing ability of companies.

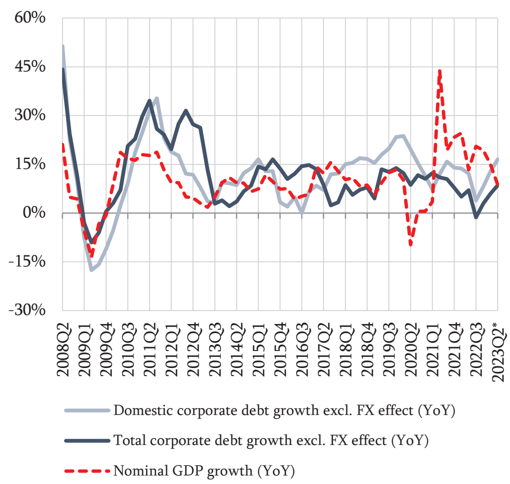
Since the beginning of the Russia-Ukraine war, the total debt burden in non-financial companies has decreased significantly and was below the long-term trend during 2022. The growth of nominal GDP and the strengthening of the national currency both remain significant factors in this development. Since the beginning of 2021, the growth of debt of non-financial companies was lower than the growth of nominal GDP, which led to a reduction in the debt burden (see Figure II.20). However, in the recent period the rate of debt growth has been accelerating, while the growth of nominal GDP

Figure II.19. Share of non-performing corporate loans in total loans in selected industries (end of period)



Source: NBG

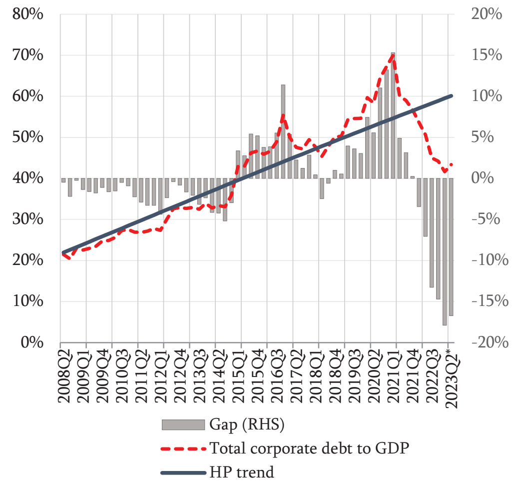
Figure II.20. Annual growth rates of nominal GDP and corporate debt



Source: NBG, GeoStat

has been slowing down, which indicates a possible reversal of the above-mentioned trend. Similarly, for several quarters now, the ratio of total corporate debt to nominal GDP, which is a common measure of the debt burden, has remained below its long-term trend and continues to decline (see Figure II.21). The growth of nominal GDP and the strengthening of the national currency have made a significant contribution in this regard, just as in the previous year (see Figure II.22). However, in the recent period, a slowing down of the debt burden reduction rate has been observed, which will gradually bring the abovementioned indicator closer to the trend and reduce the negative gap. In the first half of 2023, as a result of a significant reduction in inflation, nominal GDP growth slowed down. Meanwhile, global financial conditions tightened even further and uncertainty in the country remained elevated. Consequently, in the event of a slowdown in economic growth or a depreciation of the GEL in the following periods, the debt burden of companies may acquire a faster-than-expected pace of growth. It should be noted that the significant impact of the exchange rate on the debt burden has been caused by the high dollarization of companies' debt and indicates risks associated with liabilities raised in foreign currency for unhedged corporate borrowers. Thus, due to such uncertainty, the financial sustainability risks related to the debt burden of companies remain noteworthy.

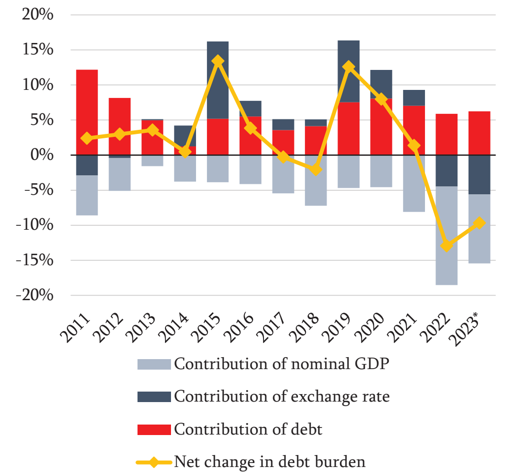
Figure II.21. Total corporate debt to GDP ratio, its long-term trend[8] and gap



* Initial estimates

Source: NBG, GeoStat

Figure II.22. Decomposition of the annual change in the total company debt-to-GDP ratio (percent of nominal GDP)

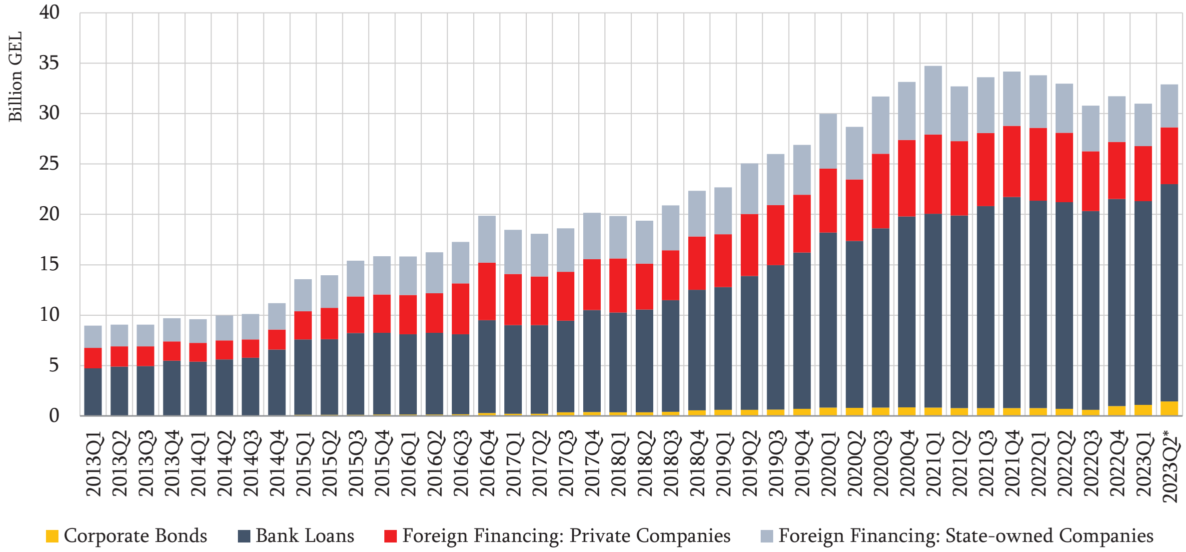


* Initial estimates of the first half of the year

Source: NBG, GeoStat

8 The long-term trend of the total corporate debt-to-GDP ratio is estimated using a two-sided HP filter with a smoothing parameter of 400,000.

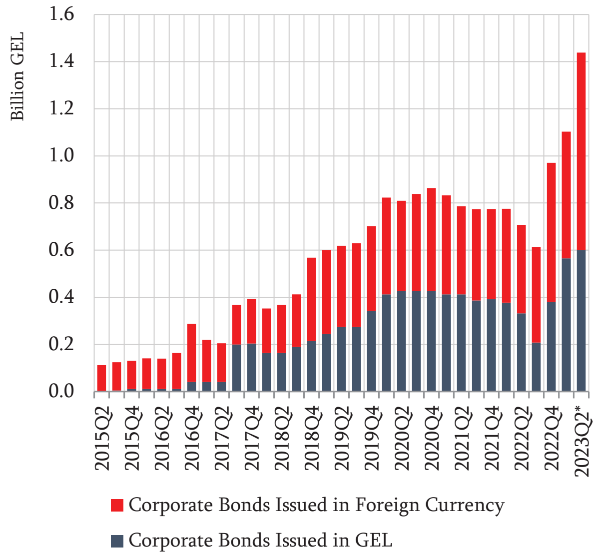
Figure II.23. Debt structure of non-financial companies



Source: NBG

Due the tightening of global financial conditions, the dependence of companies on foreign financing sources has decreased. In addition, the volume of corporate bond issuance has increased significantly. However, the share of short-term debt in their financing structures has drastically decreased. The total volume of company debt stabilized at around 30 billion GEL in 2023 (see Figure II.23). A significant contribution to the reduction of that debt came from the reduction of financing stemming from foreign sources by both private and state-owned companies. In particular, since the second half of 2022, the share of foreign financing in total debt has significantly decreased and was 5.6 percentage points lower in the second quarter of 2023 compared to the same period of the previous year. This exemplifies pressures coming from the globally tightened financial conditions, which may lead to additional capital outflows and could significantly limit access to foreign financing sources.[9] Since the end of 2022, there has been a sharp increase in the issuance of corporate bonds in the local debt securities market, both in GEL and in US dollars (see Figure II.24). Although the share of this type of financing in the total debt is small, the increased share of foreign currency-denominated bonds, which is nearing 60 percent, remains prominent. This highlights the significance of the risk arising from exchange rate fluctuations for the respective companies, especially in the background of globally tightened financial conditions. Meanwhile, the volume of bank loans in the financing of companies has increased by 5.1 percent compared to the same period of 2022 and has reached a historic high. Meanwhile, the share of such loans in total debt increased by 3.4 percentage points.

Figure II.24 Outstanding public offering corporate bonds issued in the domestic market (stock)



Source: NBG

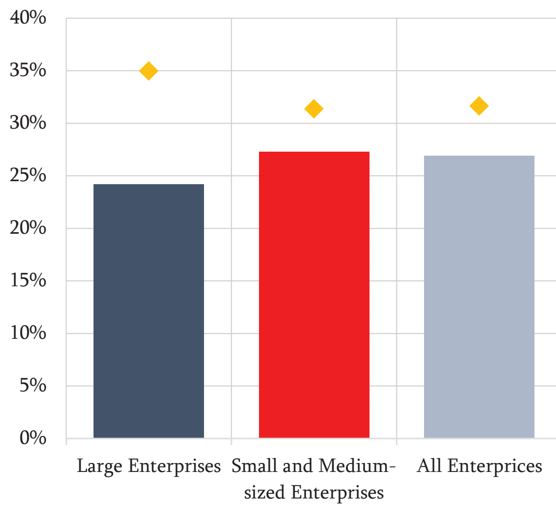
Over the three-year period of 2019-2021, compared to 2018-2020, the share of short-term debt in the structure of total liabilities significantly declined, although remained at a high level (see Figure II.25). The reduction of this share in large-sized companies is especially apparent, having fallen from 35 percent to 24 percent. The risk of companies' debt refinancing is particularly noteworthy in periods of high uncertainty, because, in the face of increased intermediate costs, continuous access to financial resources is essential for the functioning of viable companies.

9 See the IMF's Global Financial Stability Report, April 2023: https://www.imf.org/en/Publications/GFSR/Issues/2023/04/11/global-financial-stability-report-april-2023

Companies faced a relived burden in servicing foreign currency loans due to the strengthening of the exchange rate, which, in turn, facilitated a downward trend in the restructuring of foreign currency-denominated loans. However, against the background of the high dollarization of loans and the tightening of global financial conditions, solvency risks are elevated. The share of foreign currency-denominated debt in the financing structure of companies remains high. In the first half of 2023, compared to the same period of the previous year, the dollarization of the domestic debt of companies decreased by 2.5 percentage points (a 0.1 percentage point increase after adjustment for FX), although it remains at a high level of approximately 63.4 percent. Considering the external debt, the dollarization of the total debt of companies is 74.4 percent, which is 3.6 percentage points less than the value of the previous year (1.7 percentage points less after adjustment for FX). Subsequently, under the conditions of improper hedging of the abovementioned risk, the debt burden of companies is characterized by high sensitivity to exchange rate fluctuations. The depreciation of the GEL during the pandemic significantly increased the cost of servicing companies' foreign currency-denominated debt, and, as a result, in conjunction with reduced incomes, a certain part of companies restructured their debt. Due to the economic crisis accompanying the pandemic, companies' debt restructuring in GEL increased and remains at an elevated level, whereas the share of restructured loans denominated in foreign currency started to decrease in 2022 and, with some fluctuations, has continued to decrease in 2023 as well (see Figure II.26). The strengthening of the GEL had a substantial impact in this regard, easing the burden of loan servicing for firms. However, the significantly higher rate of restructuring recorded in foreign currency loans, as compared to those in GEL, and the relatively large fluctuations of their share indicate high vulnerability to exchange rate risk.

The average maturity of corporate loans issued by banks has not changed significantly. Interest rates on corporate segment loans have stabilized after an initial increase observed in 2022 and have since declined from the beginning of 2023. On the other hand, in the first half of the current year, the interest rates of loans granted to small- and medium-sized companies increased slightly (see Figure II.27). In addition, against the backdrop of a tightening of global financial conditions, additional interest rate hikes on foreign currency-denominated loans are expected, which would create a significant burden for borrowers in the event of a devaluation of the national currency.

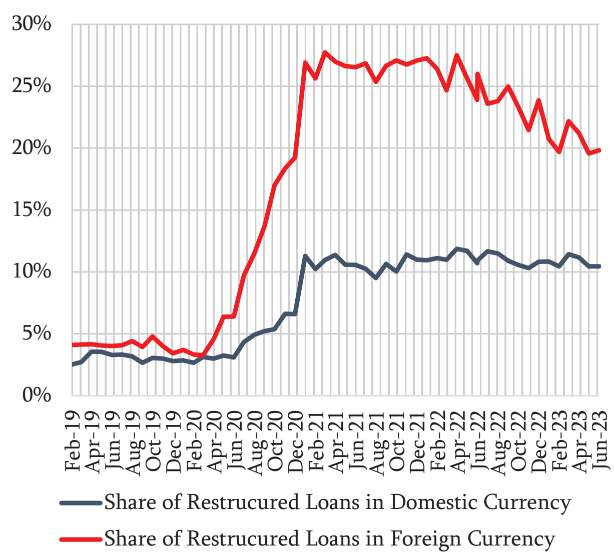
Figure II.25. Median share of short-term debt in total debt by company size (three-year average)*



* Short-term debt consists of corporate borrowings with maturities of less than a year.

Source: SARAS,[10] authors' calculations

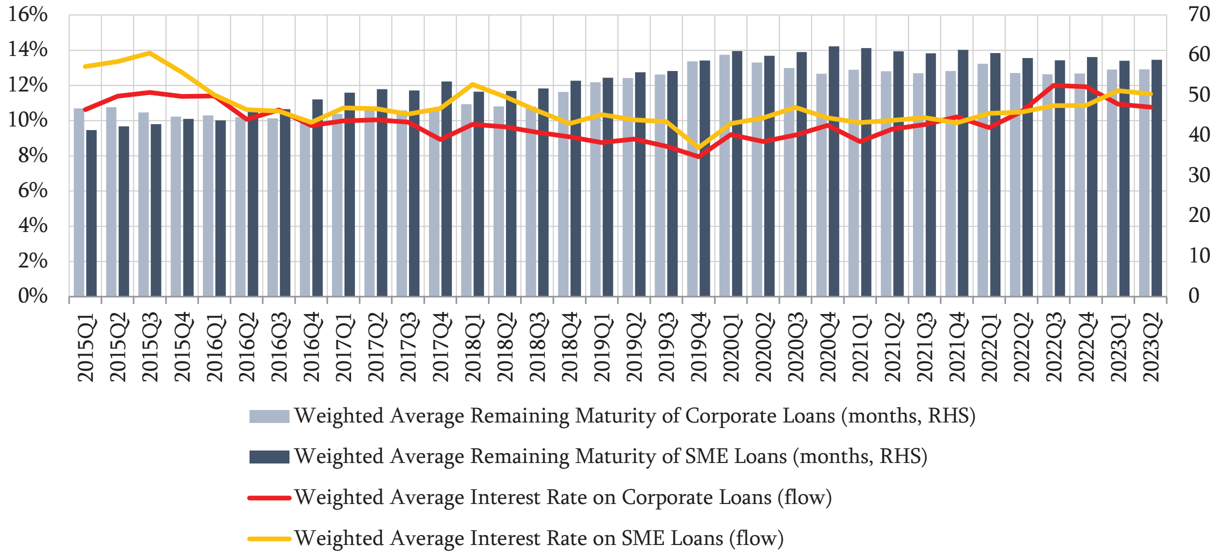
Figure II.26. Share of restructured loans in total company loans issued by banks by currency



Source: NBG

10 Service for Accounting, Reporting and Auditing Supervision of Georgia.

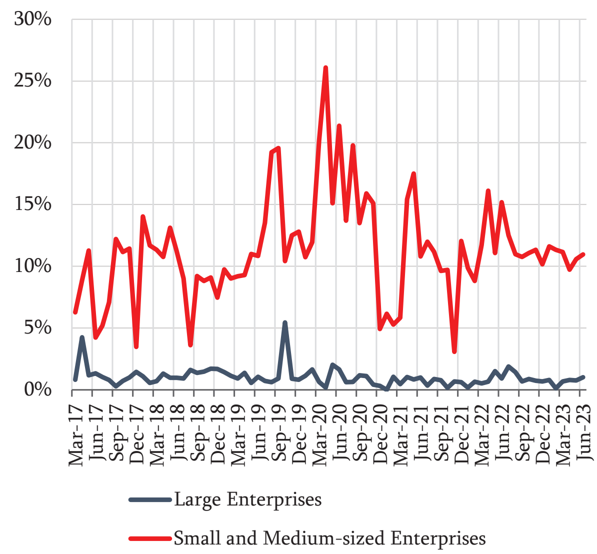
Figure II.27. Weighted average interest rates and remaining maturity of company loans



Source: NBG

Considering the caution shown by banks in the initial stages of the Russia-Ukraine war, a significant decrease in the share of rejected loan applications was observed over the last few months of 2022. As a result of the Russia-Ukraine war, an increase in the share of rejected loan applications was observed in the first half of 2022, especially for small- and medium-sized companies (see Figure II.28). However, this ratio subsequently decreased and stabilized close to 11 percent in the first half of 2023. As the credit conditions survey[11] indicates, the tightening of credit conditions by banks for corporate borrowers in the first half of 2023 was mainly related to an increase in the cost of funds, which, for the most part, was due to globally tightened financial conditions. It should also be noted that regulatory and monetary policy changes have contributed to the easing of credit conditions.

Figure II.28 Share of rejected company loan applications



Source: NBG

11 See https://nbg.gov.ge/en/financial-stability/credit-conditions-survey

Sensitivity Analisys of Non-financial Companies

In the event of a deterioration of the macro-financial environment, the debt servicing capacity of companies would remain at a healthy level, while risks to their financial stability would not increase substantially. The impact of macro-financial shocks related to tightened global financial conditions on non-financial companies can already be felt to some extent. Under these conditions, it is especially important to assess the financial stability of companies in the event of a possible additional deterioration of the macroeconomic environment. The expected impact of selected shocks on companies' debt servicing ability was estimated using sensitivity analysis. The magnitudes of the shocks correspond to the moderate-stress scenario, as discussed in Macro-Financial Risk Scenarios section of this report (see Table II.1).

Figure II.29 shows the median interest coverage ratio[12] (ICR) estimates for non-financial corporations at 2022 level, the stressed ratios under each selected shock, as well as the combined impact of all the shocks. The median interest expense coverage ratio as of 2022 is estimated at 4.5, which falls above the risky category according to Standard & Poor's corporate methodology.[13] An increase in the market interest rate was found to have the highest impact among the selected individual shocks. Regardless, the impact of that shock was not only negligible, but the interest coverage ratio still falls into the non-risky category, even under the combined impact of the selected shocks.

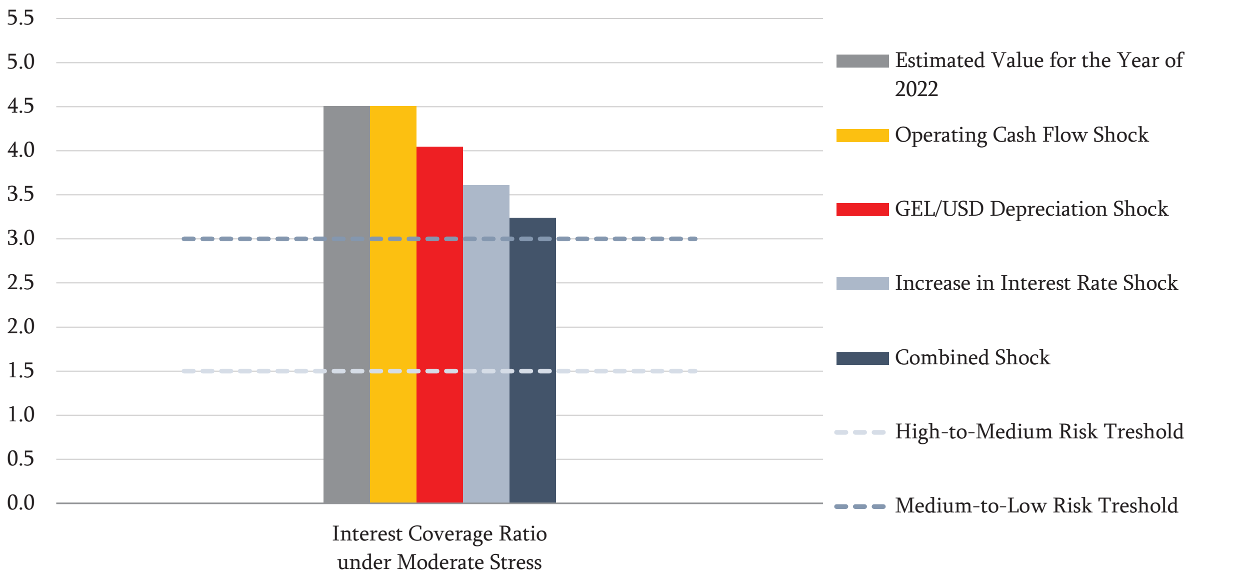
It is also important to consider the distributional effects on the corporate interest coverage ratios caused by the selected shocks under the moderate-risk scenario. As companies migrate from higher to lower interest coverage ratio ranges as a result of a realization of the selected combined shock, their debt servicing abilities deteriorate. If their coverage ratio falls below one, companies can no longer service their debt using the cash inflows generated from their operational activities – a situation

Table II.1. Macro-financial shocks for the sensitivity analysis of companies

	Increase in market interest rate shock	GEL/USD exchange rate depreciation shock	Drop in operating cash flows shock*
Moderate Stress	2.75%	15%	0%

* In the sensitivity analysis, operating cash flows are proxied by EBITDA

Figure II.29. Sensitivity analysis: impact of selected shocks on the median interest coverage ratio



Source: SARAS, authors' calculations

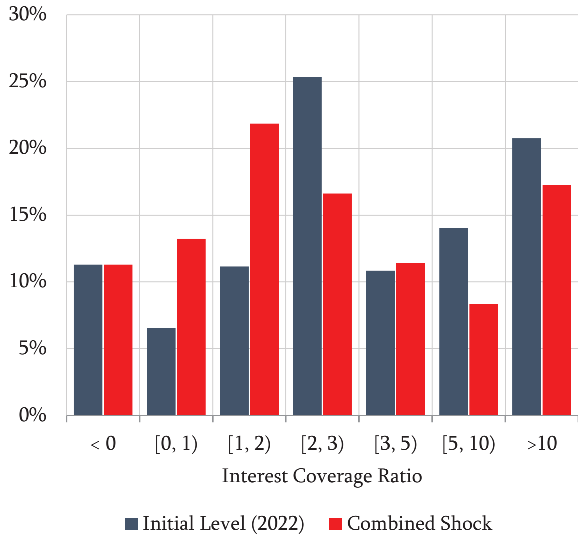
12 The interest coverage ratio is calculated as the ratio of EBITDA to gross interest expense.

13 Standard & Poor's. (2013). RatingsDirect®: Corporate Methodology.

commonly known as debt at risk. When companies enter this zone, their credit risk surges.

This can induce systemic issues since commercial banks have sizable exposure to the liabilities of non-financial corporations. The analysis shows that under moderate stress – in the form of the combined impact of selected shocks, the deterioration of macro-financial factors, and the realization of vulnerabilities related to the debt characteristics – the share of companies facing debt servicing difficulties increases by 6.7 percentage points (see Figure II.30). In particular, considering the size of assets, the share of companies with an interest coverage ratio of less than one increases from 17.8 percent (as of 2022) to 24.5 percent, which indicates the vulnerability of non-financial companies to the aforementioned shock. It should be noted here that some company debt is in the form of inter-company loans, which are raised on favored terms and can, in certain cases, de-facto represent equity. Consequently, the results of the mentioned sensitivity analysis somewhat overestimate the influence of stress; however, given the limited data, a more reliable assessment cannot be obtained.

Figure II.30 Asset-weighted distribution of the corporate interest coverage ratio



Source: SARAS, authors' calculations.

Box 2. Assessing company solvency using the Altman Z-score

The Altman Z-score is an aggregated index based on the financial data of individual companies. This indicator assesses the probability of company bankruptcy risks for the next two years. This index can be determined in several ways, but the one used in the current analysis is based on research on the solvency of companies. In Altman (2005)[14], the index is calculated using appropriate corrections for emerging market countries and it is constructed as follows:

$$Z'' = 3.25 + 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$$

Where

$$X_1 = \frac{Working\ Capital}{Total\ Assets},\ X_2 = \frac{Retained\ Earnings}{Total\ Assets},$$

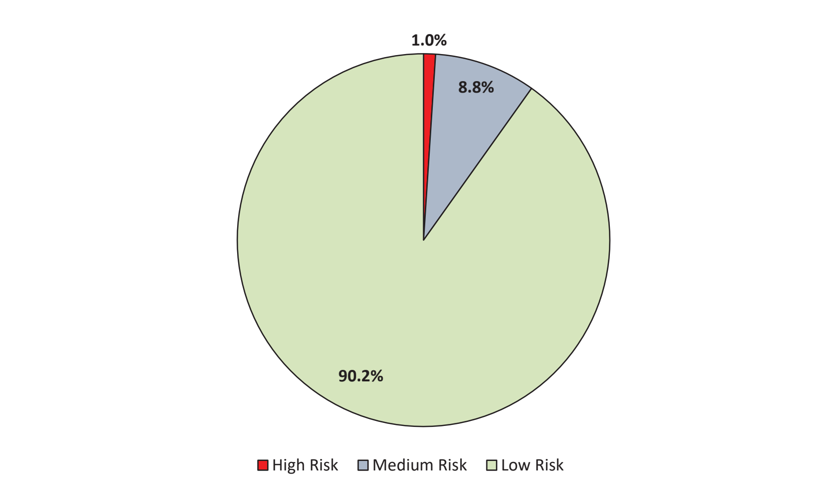
$$X_3 = \frac{EBIT}{Total\ Assets},\ X_4 = \frac{Book\ Value\ of\ Equity}{Total\ Liabilities}.$$

Companies are divided into different risk categories according to the value of the indicator. Particularly, if the corresponding Altman Z-score of a company is less than 4.5, then it falls into the high-risk zone of facing possible bankruptcy in the next two years, whereas if the indicator is between 4.5 and 5.85, then it is in the medium-risk category, the so-called "gray zone".

The post-pandemic world is characterized by high uncertainties. In such an environment, tools such as the Altman Z-score can be used to assess and, to some extent, predict risk. Under high uncertainty, the use of such methods helps companies and investors to assess the financial stability of individual companies or the state of the economy as a whole. A similar type of analysis using the Altman Z-score was carried out by the ECB in order to identify the vulnerabilities of the corporate sector under various shocks.[15]

Based on the data of companies operating in Georgia in 2021, only 1 percent of companies were in the high-risk category of facing possible bankruptcy in the next two years, and 8.8 percent were in the medium-risk category (see Figure B.2.1). Considering the existing financial state of the companies, this indicates their sustainability. By observing the dynamics of the financial performance of the same companies, the Z-score distribution (see Figure B.2.2) shows that in

Figure B2.1. Distribution of companies according to risk zones

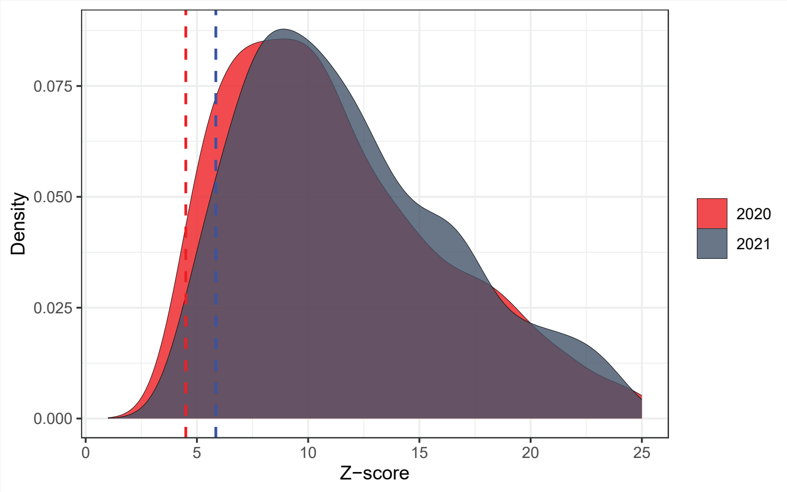


Source: SARAS, author's calculations

14 See Altman, E. I. (2005). An emerging market credit scoring system for corporate bonds. Emerging Markets Review, 6, 311-323. Retrieved from https://pages.stern.nyu.edu/~ealtman/emerging_markets_review.pdf

15 See https://www.ecb.europa.eu/pub/financial-stability/fsr/focus/2023/html/ecb.fsrbox202305_01~3d6c7da2aa.en.html

Figure B2.2. Altman Z-score distribution of companies by year

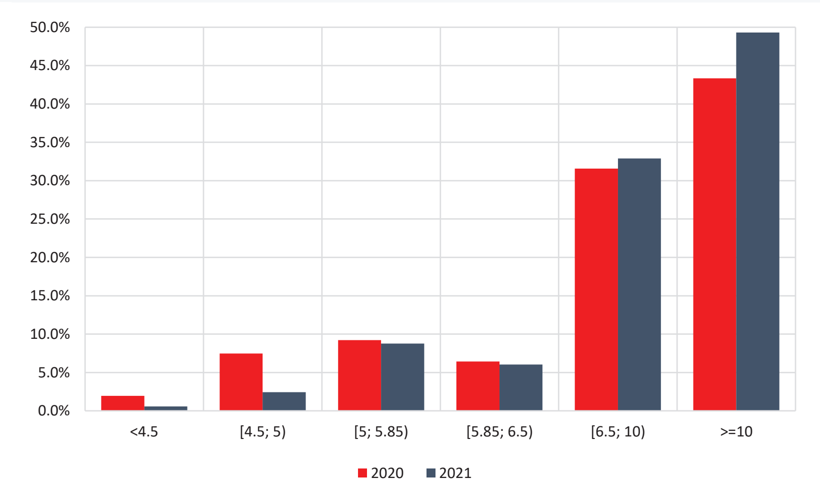


Source: SARAS, author's calculations

2020, compared to 2021, a larger number of companies were in the high-risk (to the left of the red vertical line) and medium-risk (between the red and blue vertical lines) zones of bankruptcy. This result reflects the negative impact of the COVID-19-pandemic-related crisis on the financial performance of companies. Following the introduction of company support measures and the gradual easing of regulations in 2021, the revenues of some companies recovered to some extent and the share of companies in the higher risk zones decreased.

A similar conclusion can be made from the Z-score distribution according to the asset weights of these companies. In 2020, the share of total assets of companies located in, or close to, the high-risk zone was about 6.4 percentage points higher than in 2021 (see Figure B.2.3). Whereas the share of companies in, or close to, the medium-risk zone decreased by 0.8 percentage points. Following the decrease in the share of companies' assets in both risk categories, it is evident that, following the recovery of the economy in 2021, the financial conditions of these companies have clearly improved.

Figure B2.3. Asset-weighted distribution of the Altman Z-score by year



Source: SARAS, author's calculations

The Altman Z-score can be used as a diagnostic tool to identify weaknesses in the financial structures of companies that faced financial challenges during the pandemic. This information can be used as a prerequisite for developing strategies for improving financial stability and avoiding bankruptcy.

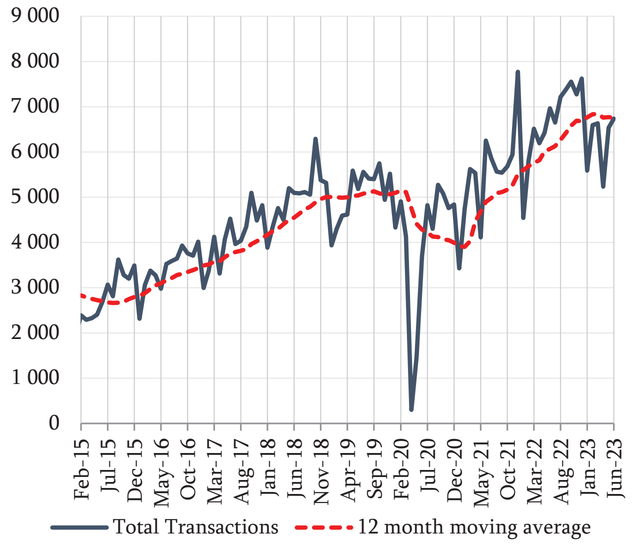
Real Estate

With the post-pandemic recovery and the rise in migration, the demand for real estate in Georgia increased significantly and house prices rose sharply. Despite the fact that the real estate market remains resilient, the ongoing war in Ukraine creates high uncertainty in the region, which could become a source of risk for the sector. Monitoring the real estate market is thus of particular importance.

With the elimination of the negative consequences of the pandemic crisis, demand for real estate remained resilient. However, the ongoing uncertainty in the region related to the war in Ukraine highlights the importance of monitoring the real estate market. The market was resilient before the pandemic crisis, and during the crisis was supported by measures taken by the NBG and the government. In 2022, as a result of the Russia-Ukraine war, migration in Georgia increased, causing a significant rise in demand for real estate. However, in the first half of 2023, that growth in demand slowed. The number of real estate transactions in the first six months of 2023 decreased slightly compared to the corresponding period of the previous year (see Figure II.31). If activity on the real estate market changes drastically, this could become a source of systemic risk. Monitoring the real estate market therefore gains particular importance. For this purpose, the NBG developed a real estate heat map in 2022 (see Box 4). Although the availability of real estate decreased slightly in the first half of the year, it remains at a high level (see Figure II.32). The availability of real estate is one of the fundamental factors of demand. Despite the fact that the real estate market remains resilient, the ongoing war in Ukraine increases uncertainty in the region, which, alongside a decrease in real estate transactions, could become a source of significant risk.

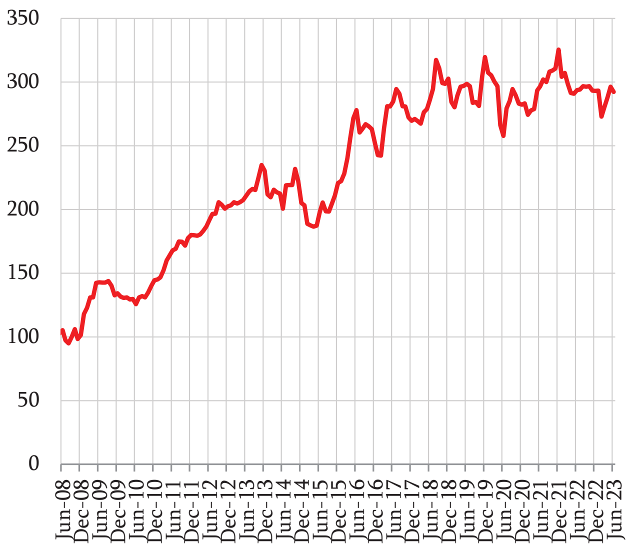
With rising migration related to the war, there was a sharp increase in rental prices that exceeded the long-term trend. In June 2023, real estate rental prices increased on average by 27 percent in GEL and by 43 percent in USD, compared to the corresponding period of 2021 (see Figure II.33). Although the growth of rental prices has slowed down, it continues to exceed the long-term trend by 30 percent, which could pose significant risks to financial stability. The capitalization index, which measures the investment attractiveness of property, has also increased sharply compared to the first half of 2022 (see Figure II.34). However, in 2023 the capitalization index has had a decreasing trend, which is important from the perspective of financial stability. A sudden drop in the capitalization index reduces the attractiveness of real estate as an investment good, which would negatively affect rent prices and, subse-

Figure II.31. Number of housing transactions



Source: National Agency of Public Registry

Figure II.32 House affordability index (2008=100)[16]



Source: NBG

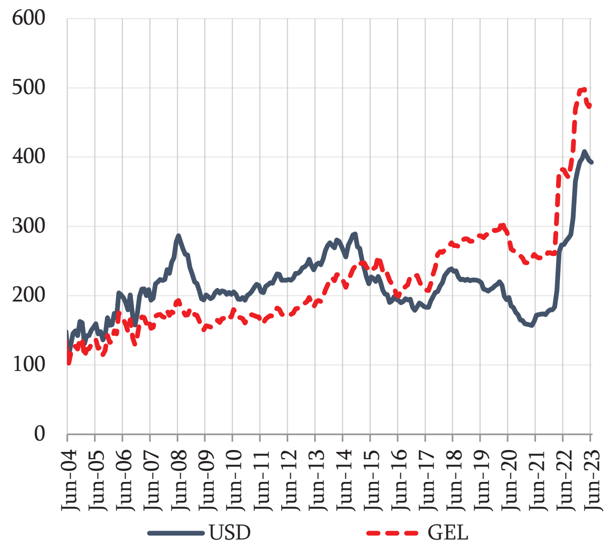
16 The house affordability index is based on the wage-to-payment ratio, which takes into account property prices, the maturity of mortgage loans, interest rates, and average wages.

quently, house prices. Therefore, the NBG recommends[17] that financial institutions consider these dynamics when evaluating the stability of income from rent in the process of issuing loans.

A significant part of demand for real estate in Batumi is from foreigners, which makes that market particularly vulnerable to geopolitical risks. Much of the demand for Batumi's real estate is for investment purposes and is largely determined by tourist inflows. In 2022, due to the post-COVID recovery and the impact of the war in Ukraine, the flow of foreigners to the Adjara region increased significantly, which translated into higher demand for real estate. Despite the fact that the growth rate of demand for real estate has decreased a little, the trend continues in 2023. In the first half of 2023, compared to the corresponding period of the previous year, real estate transactions increased by 18 percent. In addition, the share of non-residents in transactions has also increased. Non-residents, who own a third of mortgages issued in Batumi, have a higher probability of default than residents, especially because of the high uncertainty related to the ongoing military conflict in Ukraine. Setting LTV requirements for non-residents at 70 percent in 2019 aimed to reduce the financial stability risks stemming from non-residents. It should be noted that the high rate of construction of residential real estate in Batumi as observed in recent years has created the risk of excess supply; however, the increase in sales caused by migration has reduced that risk.

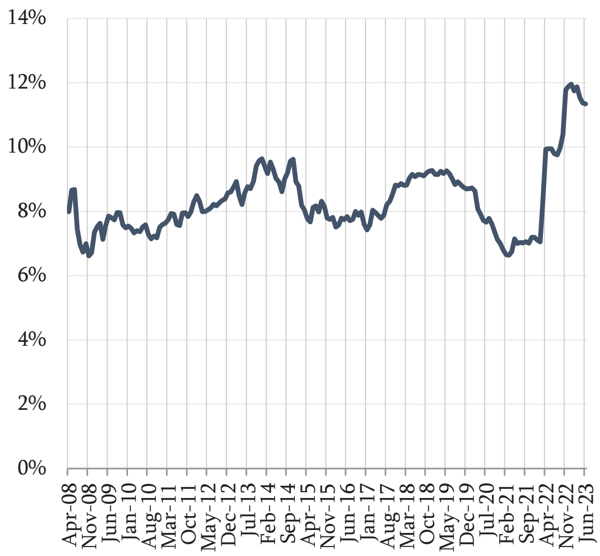
The number of permits issued for the construction of private houses has increased significantly, indicating a change in household preferences. In 2022, compared to 2021, the total number of construction permits issued decreased by 8 percent (see Figure II.35); however, the volume of issued construction permits increased by 2 percent, which was mainly driven by an increase in permits for private houses. This indicates a change in consumer preferences. In particular, as a result of the pandemic, a significant part of the population switched to working online, which increased the need for households to improve their living conditions. As a result, consumer preferences shifted from multi-dwelling properties to private houses. It is expected that the trend will continue in the future, and this should thus be taken into account when forecasting expected sales. Moreover, in case of a slowdown in market activity, the risk of excess supply could emerge (see Box 3).

Figure II.33. Residential real estate rent price index



Source: NBG

Figure II.34 Capitalization index (rent-to-price ratio)



Source: NBG

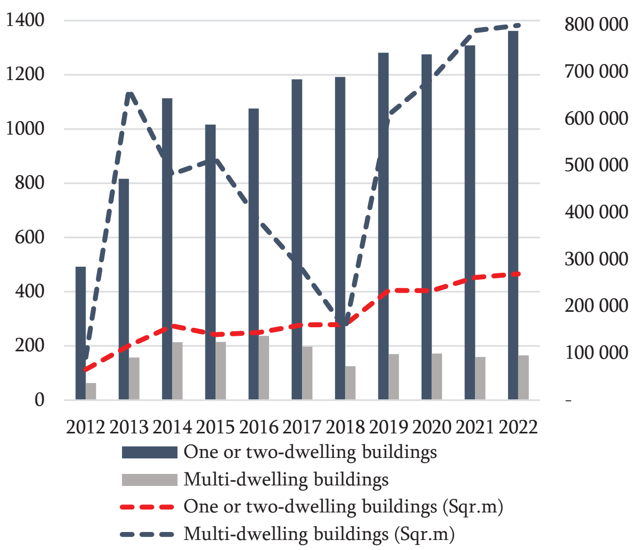
17 See https://nbg.gov.ge/fm/..ka

Real estate prices remain stable, while the price growth rate has slowed. Compared to the corresponding period of the previous year, in June 2023 real estate prices expressed in GEL increased by 11 percent on average, while US dollar-denominated prices rose by 26 percent. Compared to February 2022, GEL-denominated prices increased by 16 percent on average, while US dollar-denominated prices rose by 33 percent (see Figure II.36). The real estate price growth rate has since slightly been moderated due to lower construction costs and reduced activity in the market at the beginning of the year. In June 2023, compared to the corresponding period of the previous year, construction costs fell by 9 percent. Although there is no apparent decrease in demand for real estate, in the event of a slowdown in activity, downward pressure on real estate prices may increase. Nevertheless, a sharp decrease in real estate prices is not expected, and the market remains stable. It is important to note that after the start of the pandemic, a tendency for increased real estate prices was observed in other countries as well (see Figure II.37); however, in recent months, expectations of a sharp decrease in prices have increased, which is related to the increase in interest rates by central banks and, accordingly, a decrease in the availability of real estate – both of which have reduced demand for real estate. Increased expectations of a decrease in residential real estate prices on international markets may become a source of the accumulation of systemic risks.

Since the beginning of 2022, with the start of hostilities between Russia and Ukraine and as a result of the increase in migration to Georgia, demand for real estate has increased dramatically. This surge in demand has increased the attractiveness of real estate as an investment asset. Indeed, a significant part of the demand for residential real estate is due to investment purposes (see Box 3). If the attractiveness of real estate as an investment decreases, this will weaken demand and negatively affect prices. In addition, a decrease in demand may become a source of risk for the real estate portfolio of the banking sector and would increase the risk of excess supply, which would put further downward pressure on prices.

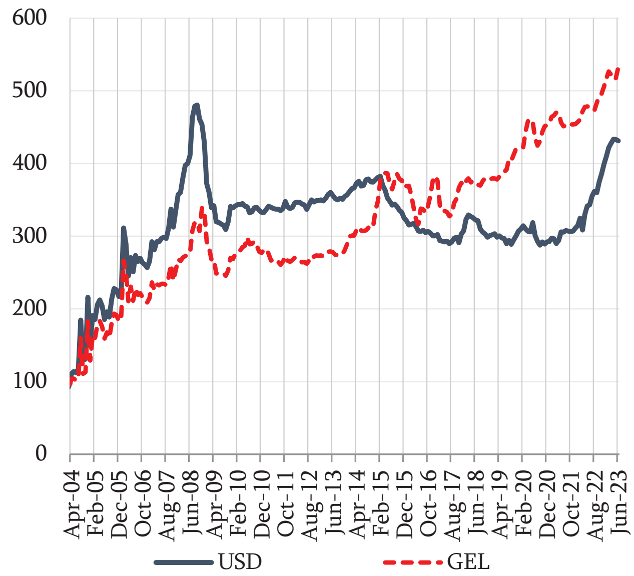
Although demand for commercial real estate has increased, it remains below pre-pandemic levels. Due to the scarcity of data, it is difficult to estimate the trend of commercial real estate prices. However, during the pandemic, the drastic reduction in economic activity, the shift to remote work, and the increase in online sales all served to reduce commercial real estate sale and rental prices. With the subsequent increase in economic activity and rising migration into the country, demand for commercial real estate increased. However, as a result of the pandemic changing office culture and in light of the growth of online commerce, the commercial real estate sector is only expected to return to pre-pandemic levels at a slow pace.

Figure II.35. Number and volume of construction permits issued[18]



Source: Tbilisi City Hall

Figure II.36. Residential real estate price index

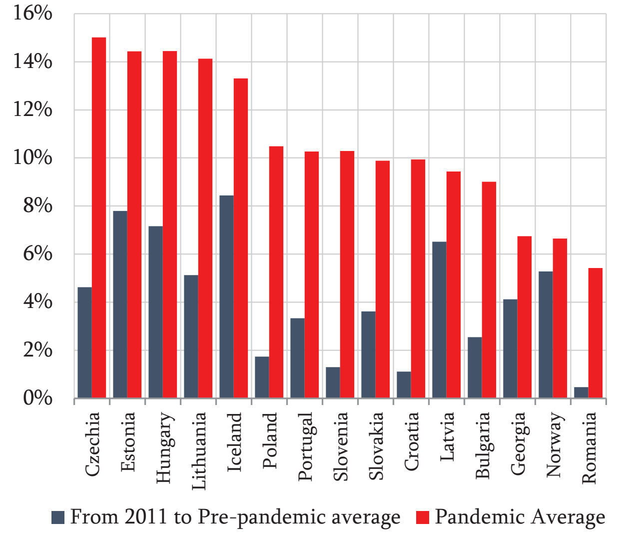


Source: NBG

18 The definition of one- or two-dwelling buildings has changed compared to the definition used in previous Financial Stability Reports. Specifically, this category previously excluded class I and II buildings, as defined by Ordinance 255, while the current classification only excludes class I buildings.

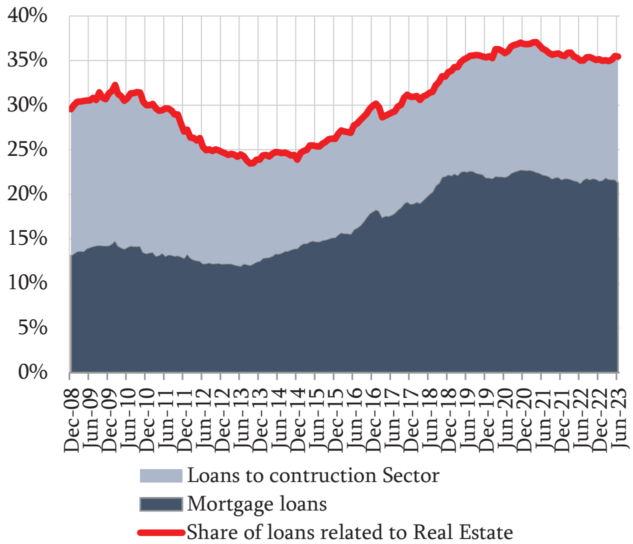
Loans granted to the construction and real estate sectors have a significant share in the banking portfolio, and the quality of such loans has improved as a result of the implementation of the responsible lending regulation. In June 2023, the share of mortgage loans in the total banking portfolio was 8 percentage points higher than during the 2008 financial crisis, while loans issued to the construction sector were 2 percentage points lower (see Figure II.38). It should be noted that mortgage loans, which are more granular, are characterized by lower risk than loans granted to companies operating in the construction sector. At the same time, the implementation of both the responsible lending regulation by the National Bank of Georgia and the de-dollarization measures served to reduce the vulnerability of households and have contributed to the rapid improvement of the quality of the mortgage credit portfolio. In June 2023, compared to the corresponding period of 2022, the share of non-performing loans in US dollar-denominated mortgage loans decreased by 1 percentage point to 3 percent; similarly euro-denominated mortgage loans decreased by 1 percentage point to 3 percent. However, these indicators still slightly exceed the pre-pandemic levels. As for mortgage loans issued in GEL, in June 2023, compared to the corresponding period of 2022, the share of non-performing loans did not change significantly and amounted to 3 percent. Meanwhile, the share of non-performing loans in construction sector loans continued to decrease and fell to 5% in June 2023, which is lower than those in the pre-pandemic period. Despite the declining dynamics related to the share of non-performing loans, it is important to note that the high dollarization of loans issued to the construction and real estate sectors remains noteworthy in terms of financial stability.

Figure II.37. Residential real estate price dynamics in national currency before and after the pandemic



Source: ECB

Figure II.38. Loans related to real estate

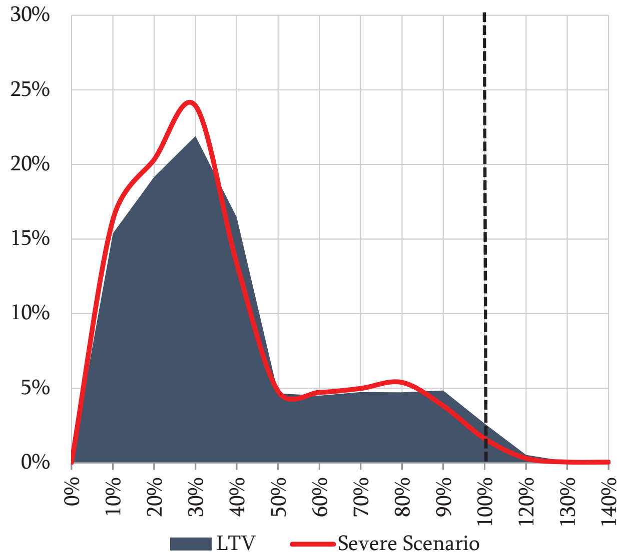


Source: NBG

Under the moderate-risk scenario[19], the loan-to-value ratio (LTV) distribution does not change significantly, while under the severe-risk scenario, the share of mortgage loans with a loan-to-value ratio exceeding 100 percent increases by 5 percent. In the case of either the moderate- or severe-risk scenarios, the distribution of loan-to-value for mortgage loans issued in national currency does not change significantly (see Figure II.39). However, under the severe scenario, if the national currency depreciates by 20 percent against the US dollar and the euro, and real estate prices expressed in national currency increase by 5 percent, then 9 percent of mortgage loans issued in foreign currency will have a loan-to-value ratio of more than 100 percent, which is 7 percentage points higher than under the baseline scenario (see Figure II.40).[20] It should further be noted that in the case of the moderate-risk scenario, 2 percent of mortgage loans issued in foreign currency will exceed 100 percent of the LTV ratio.

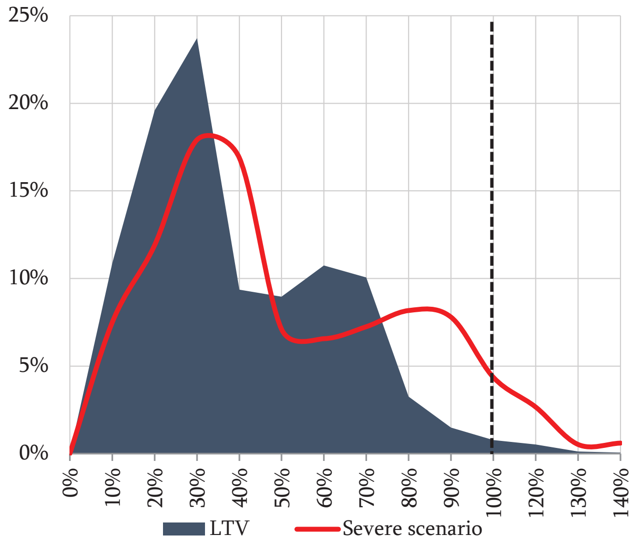
It is noteworthy that a sharp decrease in demand for residential real estate may worsen the quality of banks' real estate portfolios and contribute to the accumulation of systemic risks. Loans issued in foreign currency carry a relatively higher risk. In order to reduce this risk, since 2019 the National Bank of Georgia has determined the maximum LTV ratios of 70 percent for mortgage loans issued in foreign currency and 85 percent for loans issued in the national currency. However, according to the principles of the responsible lending regulation, collateral only serves as an additional protection against risks, and the borrower's solvency remains the main prerequisite for loan repayment.

Figure II.39. Distribution of the LTV ratio for mortgage loans issued in the national currency in the case of the severe-risk scenario



Source: NBG

Figure II.40. Distribution of the LTV ratio for mortgage loans issued in foreign currency in the case of the severe-risk scenario



Source: NBG

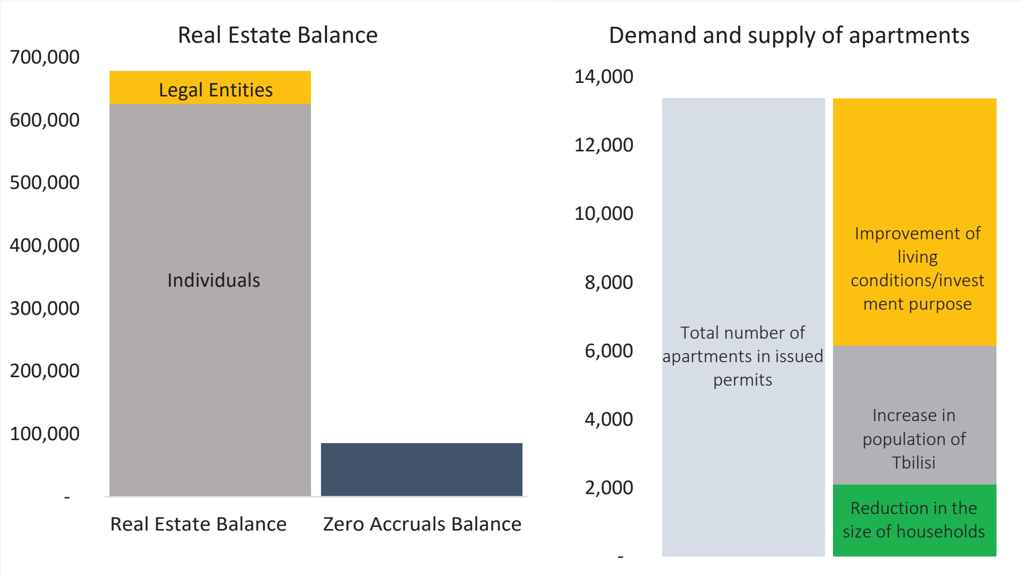
19 For more details, see the "Macro-Financial Risk Scenarios" section of this report.

20 The calculation uses the loan-to-value ratio (LTV) recorded at the time of issuance.

Box 3. Evaluation of Tbilisi's real estate balance

According to the assessment of the National Bank of Georgia, a significant part of demand in Tbilisi's real estate market is represented by real estate purchased for improving living conditions and investment purposes. As of December 2022, the total balance of real estate, according to the National Bank's estimation, is about 677 thousand units, of which 626 thousand are owned by individuals and 52 thousand by legal entities. According to the National Bank's estimates, in 2022, the supply of approximately 13,000 apartments were approved, which will be added to the real estate balance over the next three years. Of this figure on average 45 percent is commensurate with population growth and family size reductions in Tbilisi, and 55 percent is related to the improvement of living conditions and investment purposes. The latter group is particularly vulnerable to changes in the attractiveness of real estate as an investment asset. In particular, if market activity weakens, oversupply risks will increase in the medium term. A decrease in the investment attractiveness of real estate will reduce demand for real estate, which will put additional downward pressure on prices. However, price reductions to below pre-pandemic levels are not expected. In addition, the National Bank recommends that, when giving out credit, financial institutions take into account not only the recent but also the medium-term rent price dynamics when evaluating rental incomes. Doing so will help prevent the accumulation of systemic risks.

Figure B3.1. Evaluation of Tbilisi's real estate balance



Source: Tbilisi City Hall, Telmiko, NBG calculations.

Box 4. Real Estate Heat Map

Monitoring the real estate sector is particularly important from the perspective of financial stability. As a result, the NBG actively monitors real estate market and analyzes the risks stemming from this sector. For this purpose, in 2022 the NBG implemented a risk monitoring methodology developed by the ESRB that evaluates the vulnerability of the real estate sector. This methodology combines indicators that can be classified into three stretches. These include the **collateral stretch**, which covers pricing indicators; the **funding stretch**, which covers lending indicators; and the **household stretch**, which covers the balance sheet conditions of households. A full list of indicators is presented in Table B4.1.

Table B4.1. Real estate heat map indicators

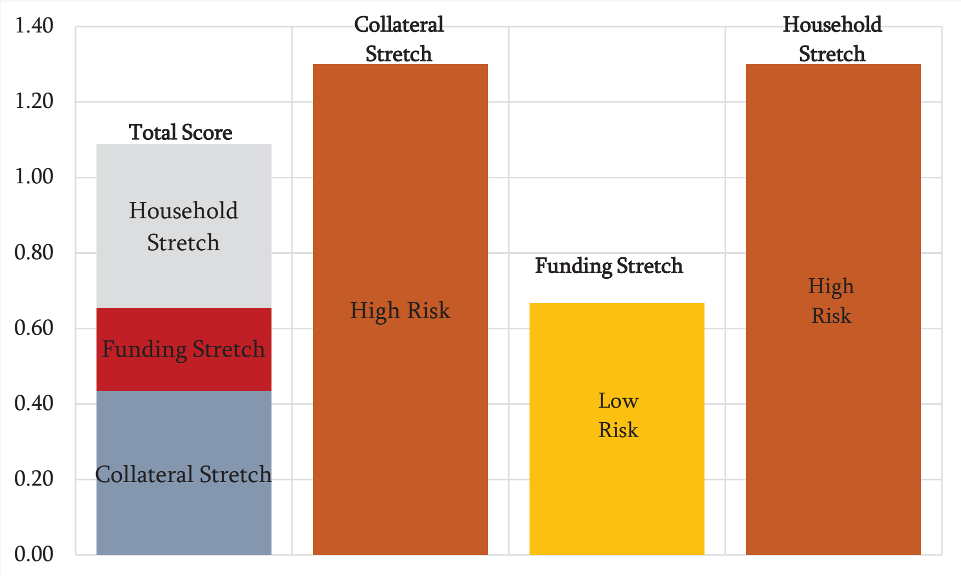
Stretch	Indicators
Collateral Stretch	Residential real estate price index, three-year real growth, average percentage
	Residential price index relative to trend
	House price to income ratio (deviation from five-year average)
Funding stretch	Loans to households for house purchases, three-year average annual real growth
	Loans to households for house purchases relative to trend
	Spread on mortgage loans
Household stretch	Household debt-to-income ratio
	Household financial-assets-to-debt ratio
	Household debt-service-to-income ratio

Indicators in the collateral stretch measure the health of the price dynamics on the real estate market and evaluate potential deviations relative to the trend. In particular, this stretch looks at the real estate price-to-income ratio, real estate price growth and its deviation from the trend. Excessive growth of these indicators could become a source of risk. The funding stretch covers indicators that capture lending dynamics. If there is a sharp increase in mortgage loans or a sharp decrease in the interest rate spread for these types of loans, this will create funding risks on the real estate market. The household stretch analyzes household vulnerability, which can be done by monitoring the household debt burden and debt servicing costs.

The level of each indicator is compared to predetermined thresholds, which allows their classification into different risk categories. Using the results of each indicator, a heat map is then constructed. The critical thresholds of which are based on ESRB's econometric model, the historical distribution of the indicators, and expert judgement that takes into account country specifics. Four risk categories are defined based on the analysis: "no risk", "low risk", "medium risk" and "pronounced risk". The medium- and pronounced-risk categories indicate high vulnerability in the real estate sector, which calls for the application of macroprudential policy or other policies related to the real estate sector.

Based on the data for the second quarter of 2023, there are no defined risks related to the funding stretch, which can be attributed to the responsible lending regulation and de-dollarization policies adopted by the NBG. Moreover, compared to the second quarter of 2021, risks related to the growth of mortgages have also decreased. Thanks to the policies implemented by the NBG, household vulnerability also decreased compared to 2019-2020, which has improved the quality of the mortgage loan portfolio. However, it should be noted that the risks in household stretch are still noteworthy, which are largely driven by the ratio of households' financial assets to debt. There is also high vulnerability in the collateral stretch. Compared to the second quarter of 2021, the indicators measuring the deviation of real estate prices to the trend and real estate prices to households' incomes have deteriorated, which hints at an increase of risks in this stretch. In addition to the abovementioned indicators, one should also consider rent price dynamics. With rising migration, residential real estate rental prices have increased sharply, which could ultimately become a source of financial stability risk.

Figure B4.1. The results of the real estate vulnerability analysis



Source: Authors' calculations

In Georgia, the level of real estate vulnerability is comparable to that of other European countries (see Figure B4.2). In 2021, risks in the collateral stretch were comparable to the average level in Europe; however, in 2023 the ratio of prices to income worsened. As for the funding stretch, the risks in 2021 slightly exceeded the risk level in Europe, but such risks decreased in 2023. Meanwhile the risk level in the household stretch slightly exceeds that of the comparable countries and is characterized by a relatively high level of risk.

Figure B4.2. Real estate heat map[21]

Source: ESRB, authors' calculations

It should be noted that when analyzing the real estate sector, the NBG does not rely on a single methodology. The NBG uses all relevant information and adopts alternative measures suggested by best international practice to allow for a more complex and comprehensive evaluation of the risks in this sector.

21 The analysis for European countries is based on 2021 data. The collateral stretch also includes a fourth component, which evaluates the riskiness of the stretch based on the econometric model. Although the model-based evaluation is not available for a number of countries, including Georgia, it is currently under development for Georgia.

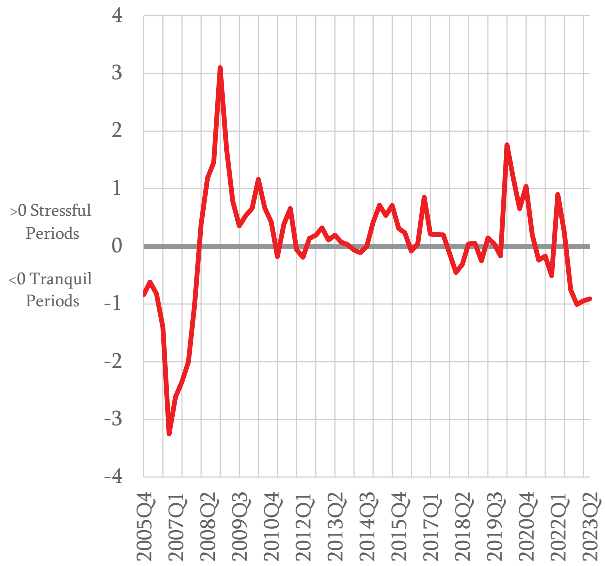
III. Financial Sector

Financial Sector review

The financial system remains resilient and holds solid capital buffers against the potential risks posed by the tense geopolitical situation in the region. The banking sector has sufficient resources to continue lending to the economy without difficulties. Despite a significant decline, dollarization remains one of the major challenges for the financial sector; however, it is expected that dollarization will continue to decrease and the attendant risks will therefore be loosened.

Amidst global geopolitical tensions, uncertainty about macroeconomic trends remains high; nevertheless, the Georgian financial system remains resilient. Over the past year, the liquidity, capital adequacy, loan quality, and profitability of the banking system have shown significant improvement. In addition, the country risk premium and exchange rate volatility have decreased, leading to an improvement in the financial stress index (FSI)[22], which currently stands approximately one standard deviation below its average (see Figure III.1). It is worth noting that the financial difficulties faced by several banks in the U.S. and Switzerland did not adversely affect the Georgian banking system due to the absence of direct connections between Georgian banks and those entities.

Figure III.1. Financial Stress Index (deviation from the average)

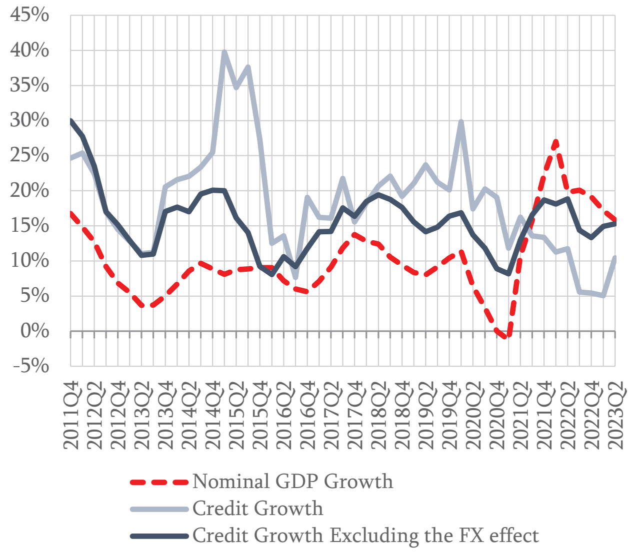


Source: NBG

22 Considering the fact that the banking system accounts for more than 90 percent of the Georgian financial sector, the index combines the profitability, interest rate spread, capital and asset quality indicators of the banking sector. In addition, the index combines exchange rate and risk premium indicators. The index is constructed by standardizing the variables and then weighting them.

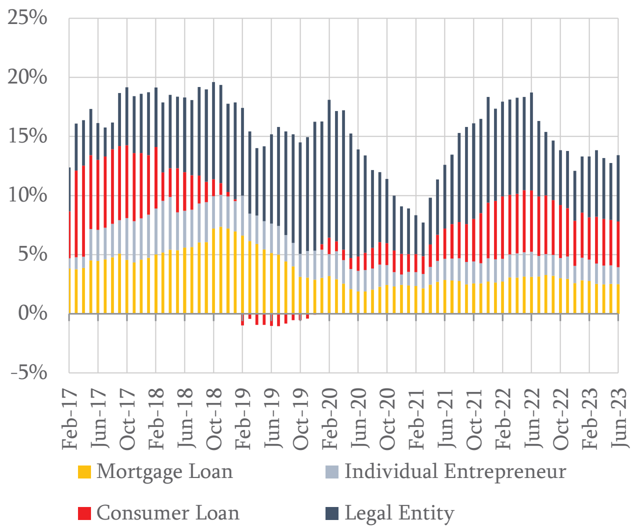
The banking system continues lending to the economy without difficulties and credit activity is in line with nominal economic growth in the current year. From the second half of 2022, the loan growth rate (excluding the FX effect) was slightly below the nominal GDP growth rate (see Figure III.2). In June 2023, the growth rate of total loans amounted to 13.4 percent, of which business loans made a contribution of 7.1 percentage points (see Figure III.3). From the second half of the previous year, the growth rate of consumer loans declined significantly and in June 2023 amounted to 20 percent (see Figure III.4). The primary cause behind the decline in the consumer loan growth rate was the reduction of the maximum maturity period from four to three years. However, despite this decline, the growth rate of consumer loans remains high. Considering the current tendency of lending activity, at the end of 2023, other things being equal, loan growth will be around 14 percent.

Figure III.2. Annual growth of nominal GDP[23] and credit[24]



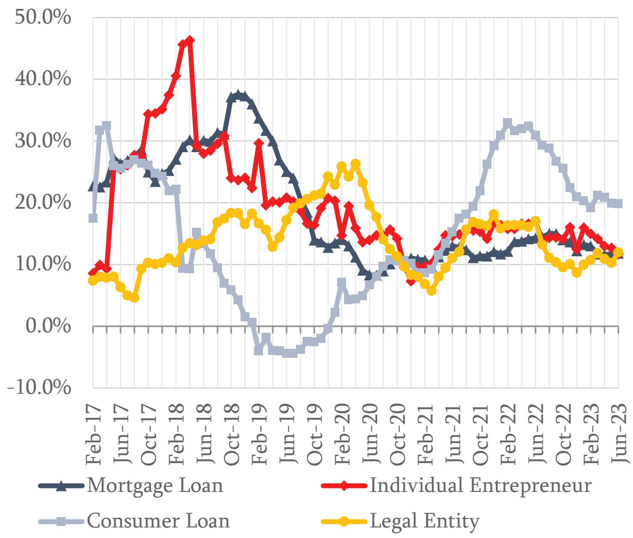
Source: NBG

Figure III.3. Decomposition of the annual growth rate of bank loans (excl. FX impact)



Source: NBG

Figure III.4. Annual growth rate of bank loans (excl. FX impact)



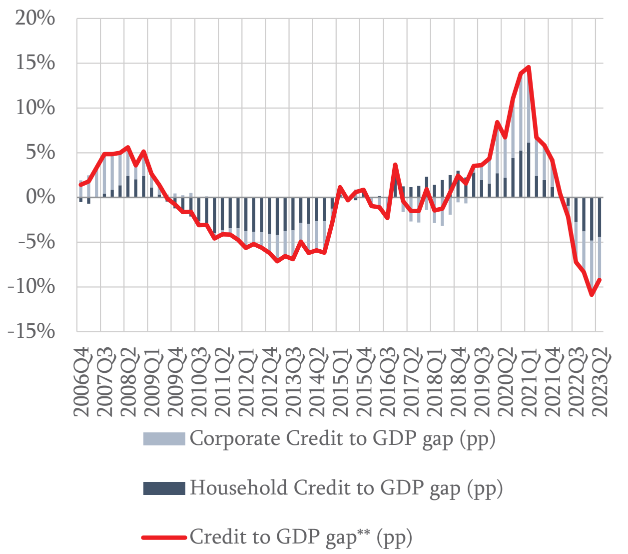
Source: NBG

23 Nominal GDP is calculated using the data of four consecutive quarters.

24 Credit includes loans directly issued by commercial banks and microfinance institutions as well as bonds issued domestically by the non-financial sector.

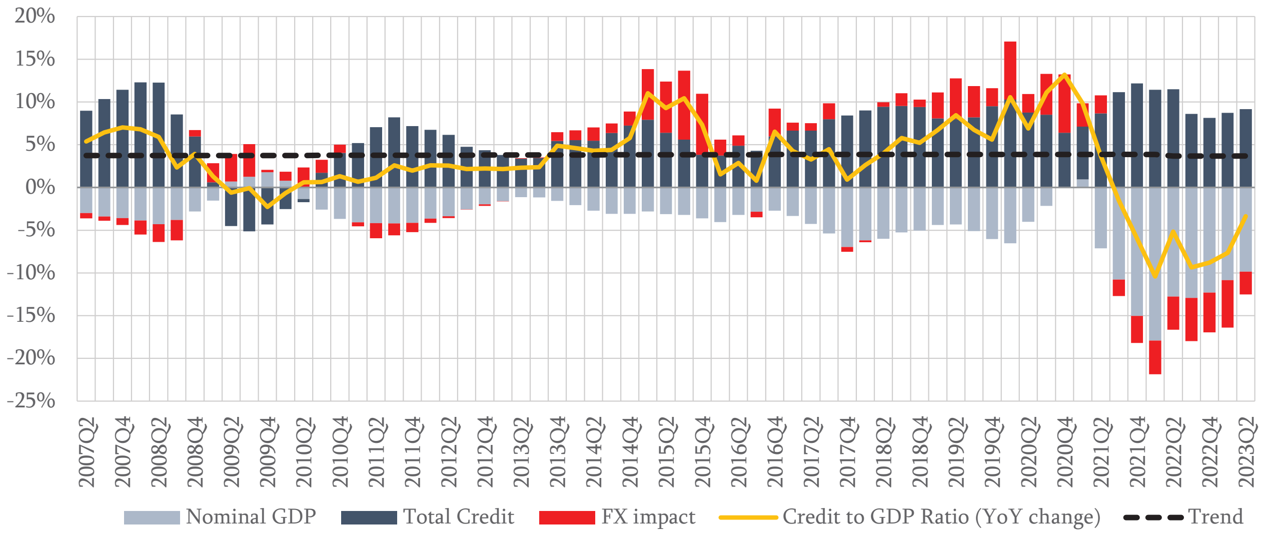
The credit-to-GDP ratio remains below its trend,[25] indicating a reduced debt burden and the lower vulnerability of borrowers. Over the past year, the credit-to-GDP ratio has continued its decline and, as of the second quarter of 2023, remains below its long-term trend (see Figure III.5). The decline in the credit-to-GDP ratio reflects the impact of high economic growth and the exchange rate appreciation (see Figure III.6), indicating a reduction of the debt burden and the lower vulnerability of borrowers. Other things being equal, it is expected that the credit-to-GDP ratio will gradually converge with its trend in 2024.

Figure III.5. Credit-to-GDP gap



Source: NBG

Figure III.6. Decomposition of the YoY change in the credit-to-GDP ratio

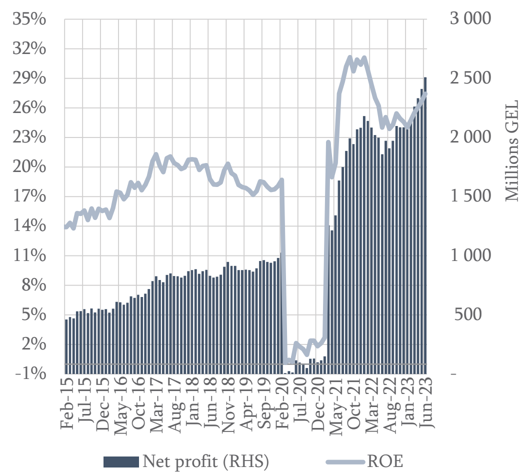


Source: NBG

25 The credit-to-GDP trend is estimated using an HP filter in line with the Basel recommendations (λ=400,000).

Similar to the previous year, banks began 2023 with robust profitability, which can primarily be attributed to lending activity and low credit losses. The profitability of the banking system remains at a solid level, which is mainly supported by low credit losses and increased net interest income, which, in turn, is related to both increased interest rate spreads in foreign currency and stable lending activity. If the current trend of profitability is maintained, it is expected that the ROE will be around 25 percent by the end 2023 (see Figure III.7). Strong profitability is an important source for increasing capital and it provides banks with a significant buffer to absorb potential shocks. However, it is important to ensure that financial institutions do not accumulate excessive risks in an effort to make short-term profits. In recent years, the share of non-interest income in total income[26] has been largely stable and, in the second quarter of 2023, amounted to 35 percent. Income from foreign exchange trading and translation makes a significant contribution to the formation of non-interest income, the share of which was 43 percent in June. In addition, the share of net commission income is high, amounting to 34 percent (see Figure III.9).

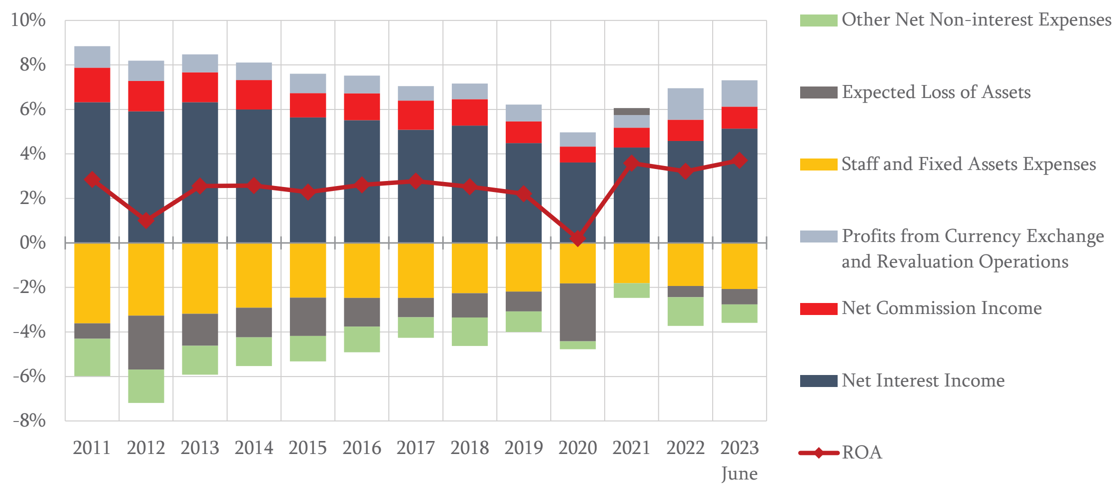
Figure III.7. Profitability[27] in the banking sector



Source: NBG

Non-interest income is generally considered to be a stable source of income due to lower procyclicality, but open banking and other initiatives stimulating competition will put pressure on such income.

Figure III.8. ROA decomposition for the banking sector



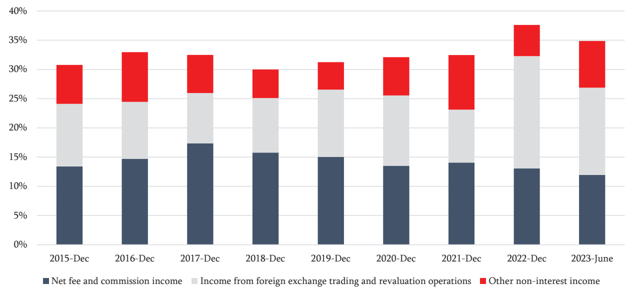
Source: NBG

26 Net interest income + non-interest income.

27 This calculation is based on the data of the last 12 months.

As a consequence of historically stable profitability, alongside the earlier enactment of supervisory requirements, the banking system remains well-capitalized against potential shocks. The capital ratios of the banking system remain at a solid level (see Figure III.10). The accumulation of capital is a result of both historically stable profitability and the requirements for additional supervisory capital. In addition to minimal capital requirements, banks are required to hold combined buffers (conservation, countercyclical and systemic buffers) and buffers under Pillar 2 (the unhedged currency-induced credit risk buffer, credit portfolio concentration risk buffer, net stress test buffer, net GRAPE buffer and the credit risk adjustment buffer). The restoration of the capital buffers that had been released due to COVID-19 started from January 2022. Banks were given time to restore the capital buffers: until 1 January 2023 to restore the currency-induced credit risk (CICR) buffer, and until 1 January 2024 to meet the capital conservation buffer requirement. However, it should be noted that a significant number of banks have already restored the released capital buffers. In addition, considering the fact that in March 2020, as part of the pandemic-related supervisory measures, the increase (phase-in) of the requirements for core Tier 1 capital and Tier 1 capital for the credit risk concentration buffer (HHI) and the net GRAPE buffer had been postponed for one year, in March 2023 new rates for the credit risk concentration and net GRAPE buffers came into effect. The new rates stood at 56 percent for core Tier 1 capital and 75 percent for Tier 1 capital. This means that 56 percent of the requirement for these buffers needs to be met using core Tier 1 capital elements, while 75 percent should be fulfilled with Tier 1 capital elements (see Table III.1). In the first half of 2023, the majority of commercial banks maintained solid capital buffers (see Figure III.11).

Figure III.9. The structure of non-interest income for the banking sector



Source: NBG

28 The capital adequacy ratios are calculated using the local approach.

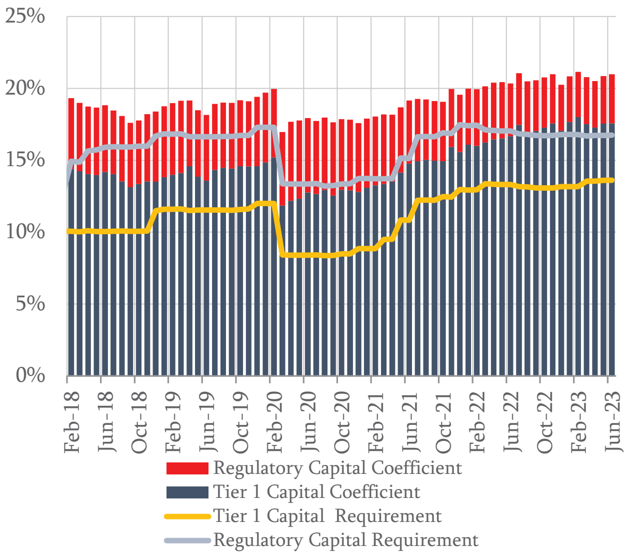
Table III.1. Concentration and net GRAPE buffer rates

Concentration (name and sectoral) and net GRAPE buffer rates	31/03/2021	31/03/2022	31/03/2023 and after
Core Tier1 capital	30	45%	56%
Tier1 capital	40%	60%	75%
Regulatory capital	100%	100%	100%

Source: NBG

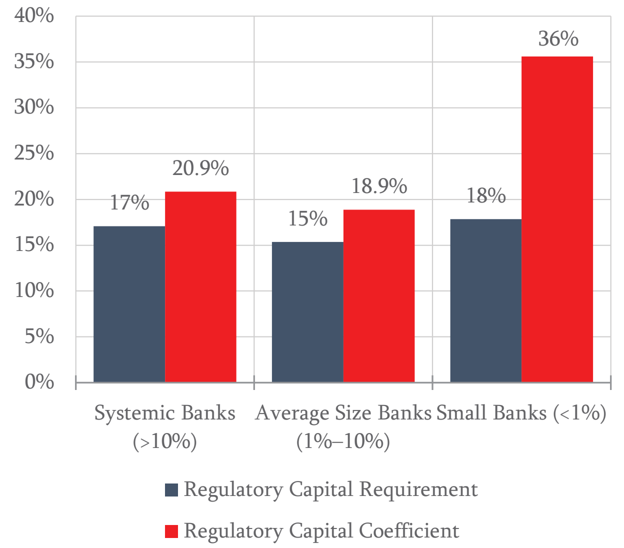
Starting from 1 January 2023, the Georgian banking system transitioned from local reporting standards to International Financial Reporting Standards (IFRS). Consequently, public and supervisory reporting within the banking sector will be more closely aligned with the practices observed in developed countries worldwide. Harmonization with international standards is one of the most important priorities of the National Bank of Georgia. The transition of commercial banks' supervisory reports to IFRS was included in the 2020-2022 Supervisory Strategy. The introduction of the regulation will support the comparability of approaches to calculating expected credit losses on the financial instruments of commercial banks and will help improve financial reporting. Commercial banks are expected to comply with the supervisory regulations by using IFRS-based numbers and approaches as they transition to IFRS. Also, according to the stated principle of the National Bank of Georgia, when transitioning to IFRS, other things being equal, a neutral approach to the cost of regulatory capital should be maintained. The capital adequacy framework has been amended for this purpose. A credit risk adjustment (CRA) buffer and an updated procedure for its calculation were added to the regulation for determining capital buffers for commercial banks within Pillar 2. The purpose of establishing a CRA buffer is to reduce the credit risk caused by insufficient expected credit losses set up for assets, and to determine an adequate capital buffer.

Figure III.10. Capital adequacy in the banking sector (Basel III)[28]



Source: NBG

Figure III.11. Distribution of capital adequacy in the banking sector

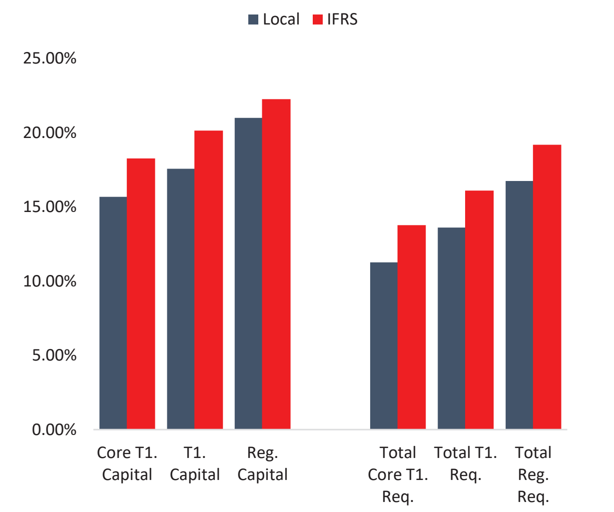


Source: NBG

In March 2023, the Financial Stability Committee (FSC) of the NBG decided to set the cycle-neutral countercyclical capital buffer (base rate) at 1%.[29] According to the Basel Committee's recommendation,[30] in November 2022 the FSC first announced the introduction of a positive cycle-neutral countercyclical capital buffer. While the base rate for the countercyclical capital buffer had previously been zero in normal times and would increase in the case of excess credit activity, hereafter the base rate for the positive cycle-neutral countercyclical capital buffer will be positive, even in normal periods. Therefore, when the recovery of the economy after a crisis is complete, credit activity is not excessive, the quality banking system assets are improved, the profitability is stable, and the current trends of the economy are positive, then there is a prerequisite for setting a positive cycle-neutral capital buffer rate. Considering this, in March 2023 the FSC decided to set the cycle-neutral countercyclical capital buffer (base rate) at 1%. It should be noted that the total requirement for the countercyclical buffer consists of the sum of the neutral and cyclical components. Consequently, the total requirement for the countercyclical buffer will vary with the financial cycle.

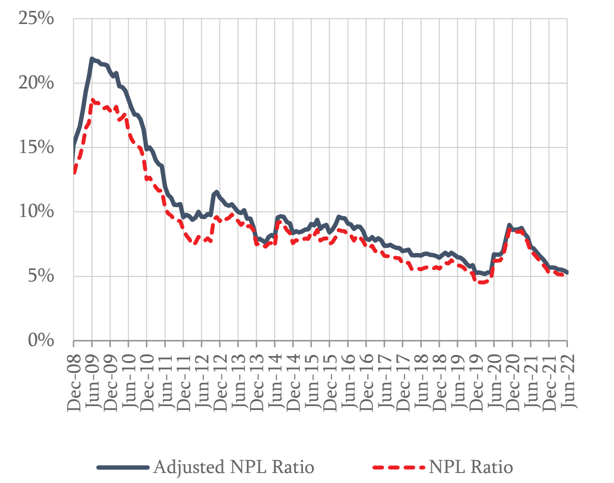
The share of non-performing loans (NPLs) declined to reach a historic low since the Global Financial Crisis. As expected, the share of non-performing loans has continued to decline and, in June 2023, stood at 3.7 percent (see Figure III.13). However, according to the decomposition of the annual change of the non-performing loan ratio, the decrease observed from the end of 2022 can predominantly be attributed to the expansion of the loan portfolio (see Figure III.14). The share of loans under moratoria has also significantly declined, indicating that such loans will not have a significant impact on non-performing loans (see Figure III.15). It should also be noted that the non-performing loans coverage ratio remains at a high level. In June 2023, the ratio of loan loss reserves to non-performing loans amounted to 105 percent (see Figure III.16). Despite the uncertainty related to the Russia-Ukraine war, no increase in the non-performing loan ratio is expected in the baseline scenario.

Figure III.12. Capital ratios of the banking system based on current and IFRS approaches



Source: NBG

Figure III.13. NPL ratio for bank loans[31]



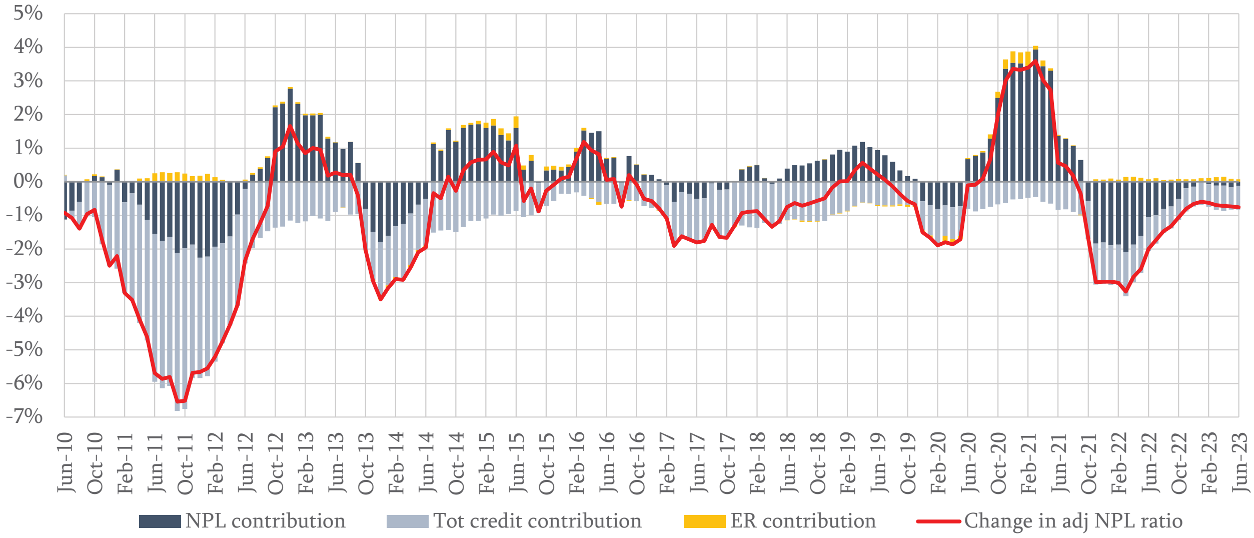
Source: NBG

29 See nbg.gov.ge/en/financial-stability/committee

30 See https://www.bis.org/bcbs/publ/d542.htm

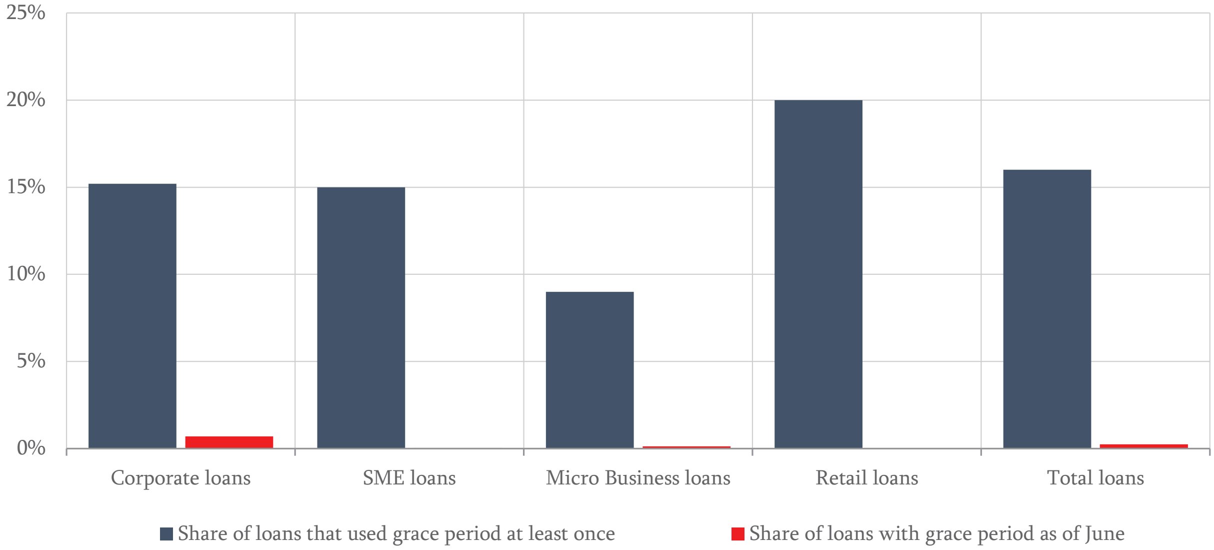
31 According to the NBG's methodology, NPLs include substandard loans together with doubtful and loss loans.

Figure III.14. Decomposition of the annual change in the adjusted NPL ratio[32]



Source: NBG

Figure III.15. The share of loans that used grace periods



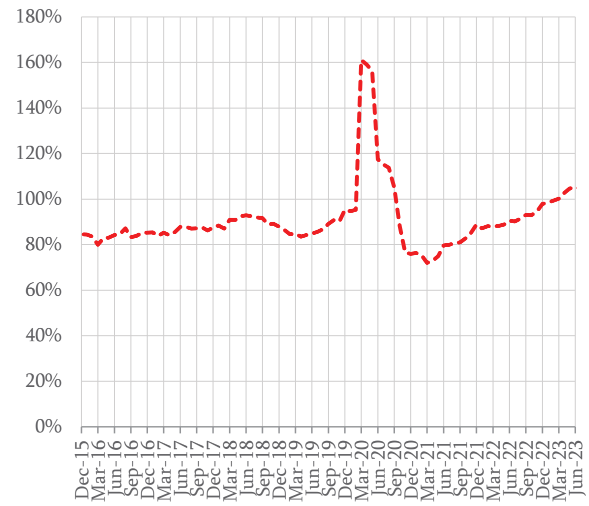
Source: NBG

The financial difficulties faced by banks in the U.S. and Switzerland led to increased price volatility in global financial markets. In line with this trend, the share prices of Georgian banks initially decreased but soon rebounded. Starting from March 2023, Silicon Valley Bank (SVB), along with other medium-sized banks and Credit Suisse, encountered significant financial issues. As a result, there was a global decline in banks' stock prices. The stock prices of Georgian banks initially followed this trend, although a recovery commenced shortly after (see Figure III.17). The recovery process of the stock prices of Georgian banks was supported by solid profitability, strong lending activity, high economic growth, and the appreciation of the local currency. As the stock market is an important source of capital for those banks that are listed, positive dynamics in this regard serve to improve the resilience of the banking system.

32 The ratio of loan loss provisions to non-performing loans.

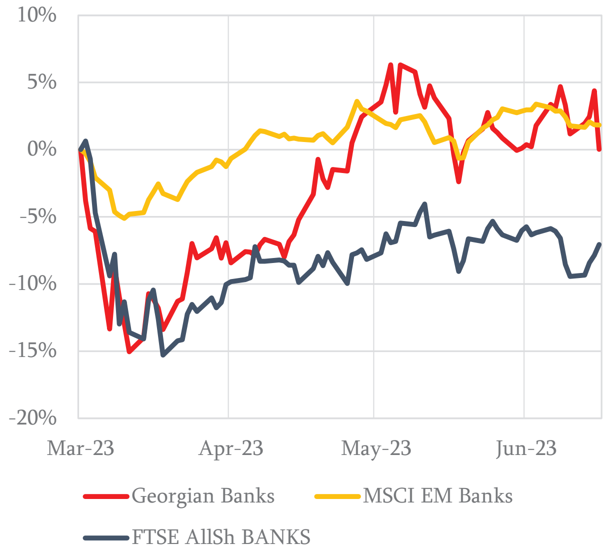
The banking sector maintains adequate liquidity, which ensures banks' resilience in times of short-term liquidity shocks. In the current period, the liquidity coverage ratios (LCRs) for the banking system in both the domestic and foreign currencies significantly exceed the minimal requirements (see Figure III.18). Moreover, over the past year, the Net Stable Funding Ratio (NSFR) has consistently remained near 130 percent, significantly surpassing the minimum requirement of 100 percent. It is noteworthy that amid the Russia-Ukraine war, from the first half of 2022, the share of non-resident deposits increased significantly, amounting to 18 percent in the current period (see Figure III.19). The National Bank of Georgia maintains higher liquidity requirements for non-resident deposits of natural and legal persons compared to residents' deposits. Following the Russian invasion of Ukraine, there was a substantial rise in foreign currency deposits from Russian residents in Georgia. This increase poses a concentration risk and adversely impacts the liquidity position of the system. Consequently, the Financial Stability Committee decided to increase the liquidity requirement (outflow rate) to 80% for foreign currency deposits held by Russian residents. The outflow rate previously ranged between 30-40%. This change has become effective from 1 September 2023.

Figure III.16. NPL coverage[33] in the banking sector



Source: NBG

Figure III.17. Normalized equity prices[34]



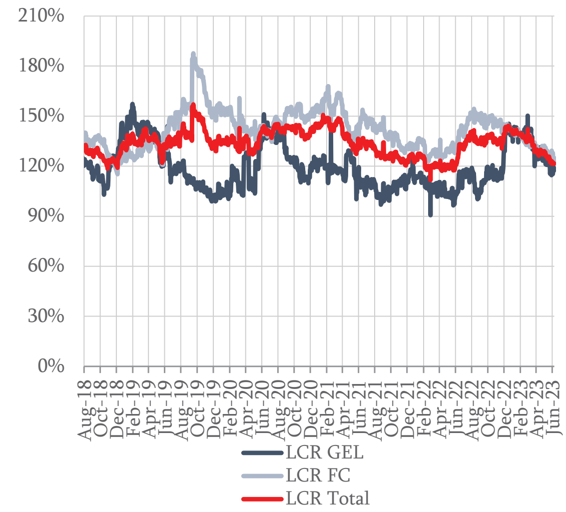
Source: NBG, Bloomberg.

33 The ratio of loan loss provisions to non-performing loans.

34 For Georgian banks, the index is weighted by equity capital. The data are normalized and reflect the percentage change with respect to the prices seen as of 2 March 2020.

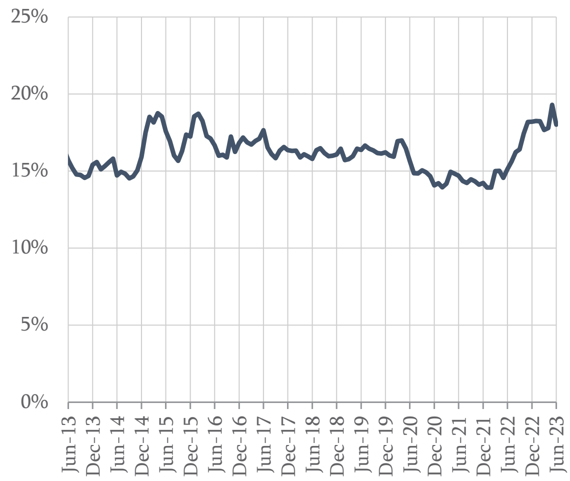
While the share of deposits in financing GEL loans is growing, it remains essential to decrease reliance on alternative funding sources by actively attracting more GEL deposits. Compared to June 2022, there has been a decrease in the loan-to-deposit ratio, which can be attributed to the high growth of deposits during this period. The loan-to-deposit ratio in GEL has experienced a noteworthy decrease, though it remains at a high level. As of the first half of 2023, this ratio stands at 113 percent (see Figure III.20).[36] However, despite the fact that, compared to deposits, borrowed funds are generally less stable sources of funding, such funds taken by Georgian banks are mainly of a long-term nature and are mostly financed by parent or development-oriented international financial institutions, which reduces liquidity risks. The loan-to-deposit ratio in foreign currency remains in the range of 90 percent indicating that loans in foreign currency are financed through relatively stable funds. Therefore, in this regard, the liquidity risk in foreign currency remains low. Given that the NBG is more flexible in supplying liquidity in the local currency, the stability of foreign currency funding is crucial.

Figure III.18. Liquidity coverage ratio (LCR) for the banking sector[35]



Source: NBG

Figure III.19. Share of non-resident deposits in total deposits



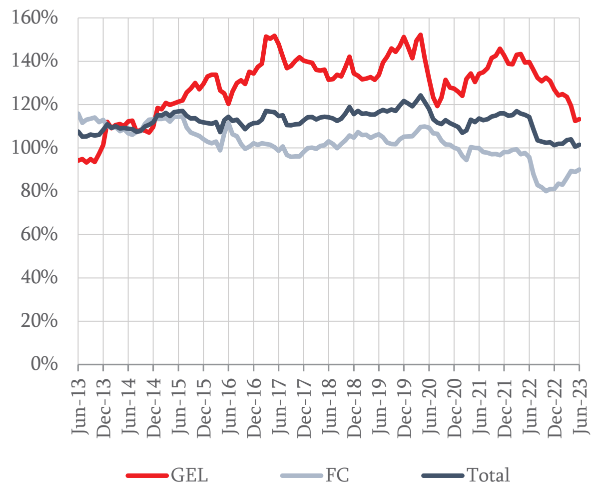
Source: NBG

35 The minimal LCR requirement in GEL amounts to 75 percent, while for FX and in total it amounts to 100 percent.

36 It should be noted that equity capital is denominated in GEL. Therefore, the loan-to-deposit ratio will be naturally higher in the domestic currency as compared to foreign currency.

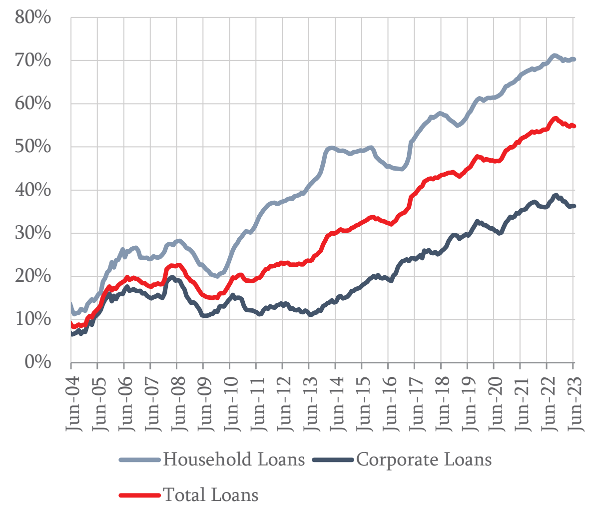
Despite a significant decline in recent years, dollarization is still high and remains one of the main challenges facing the financial sector. In recent years, the share of loans issued in the local currency has been increasing and in June 2023, this share amounts to 55 percent (see Figure III.21). Despite a significant decline in recent years, dollarization remains at a high level (see Figure III.22) and, given that most foreign currency borrowers are still unhedged, a depreciation of the local currency would increase banks' credit risk. It should be noted that, in order to partially insure against currency-induced credit risk, banks are obliged to maintain an additional capital buffer. In recent years, deposit dollarization, excluding the FX effect, declined significantly, but this remains at a high level. In June 2023, compared to the same period of the previous year, the dollarization of total deposits, excluding the FX effect, decreased by 4 percentage points, settling at 51 percent. Additionally, resident deposits experienced a 7-percentage-point decline in dollarization, reaching 43 percent. This trend can be attributed to both the outcomes of the dedollarization (larization) policy and the appreciation of the local currency, coupled with tighter monetary policy.

Figure III.20. Loan-to-deposit ratio



Source: NBG

Figure III.21. Larization at a fixed exchange rate



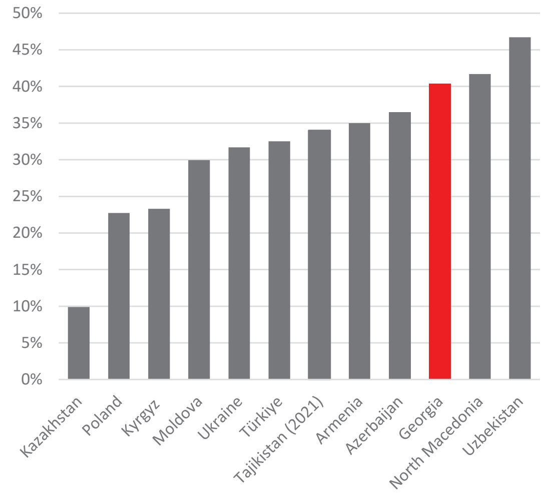
Source: NBG

In the recent period, the share of loans issued with variable interest rates has been decreasing. Nevertheless, these remain at a high level. Consequently, a potential rise in interest rates of the US dollar and euro in global markets, or the prolonged implementation of stricter monetary policies, exposes banks to heightened credit risks in foreign currency. As of June 2023, the share of floating interest rate loans in GEL, USD and EUR amounted to 44, 53 and 58 percent, respectively. In the recent period, USD and EUR interest rates have increased on global markets. Nonetheless, the implementation of responsible lending standards in May 2022, requiring commercial banks to consider a 3-percentage-point interest rate shock when evaluating borrower solvency for variable-rate loans, has reduced credit risk significantly. It is important to note that developed countries are responding to high inflation and global uncertainty by maintaining tighter monetary policies. Considering this, it is possible that foreign interest rates will rise again, or that the current increase will be strongly passed on to the domestic market. Therefore, because the movements of foreign interest rates are mostly not aligned with the Georgian economic cycle, banks are more exposed to credit risk in foreign currency than they are in domestic currency.

Georgia's banking sector is highly concentrated. However, considering that the interest rate spread has had a declining trend, this does not prevent competition in the market. Despite the high concentration in the banking sector, interest rate spreads have been decreasing in recent years. The relatively high concentration in this case thus does not lead to a non-competitive environment. The improvement of the efficiency of the banking sector is also worth noting, which is evident in reduction of the ratio of total non-interest expenses and income in the banking system (see Figure III.23).

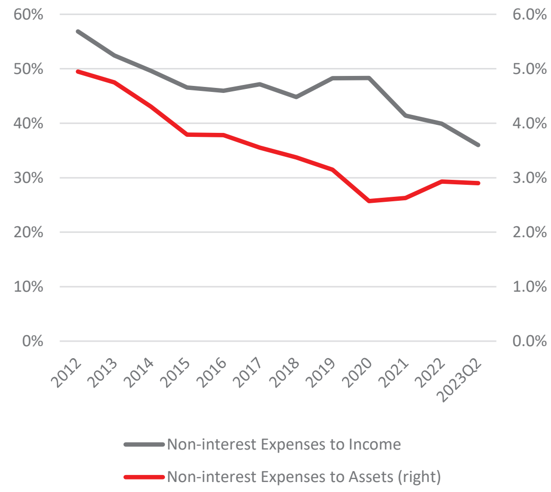
Promoting the development of consumer-centric and cost-effective financial innovations will encourage competition in the financial sector. To foster responsible and innovative technologies in the financial sector, the National Bank of Georgia maintains effective communication with innovators in the financial technology community through its Financial Innovation Office.[38] It should also be noted that the NBG has developed a framework for a regulatory laboratory that allows representatives of the financial sector to test innovative services and products

Figure III.22. Loan dollarization by country (2022)[37]



Source: IMF

Figure III.23. The ratio of non-interest expenses to income for commercial banks



Source: NBG

in real time within a supervised environment.[39] In addition, discussions on a range of innovative products have been planned, including the "Digital Bank", "Platform", and "Online Currency Conversion". The first digital bank license was issued in 2022 with the support of the Innovation Office. The emergence of new entities through digital banking will promote the development of the digital ecosystem and encourage innovative business models, which, in turn, will improve competition in the financial market. The NBG is also considering the issuance of a Central Bank Digital Currency (CBDC) to facilitate the use of new financial technologies to improve the efficiency of the payment system and encourage financial inclusion.

37 The data for Armenia is taken from the website of the Central Bank of Armenia. According to the IMF, the dollarization of loans in Armenia in 2020 was 50 percent.

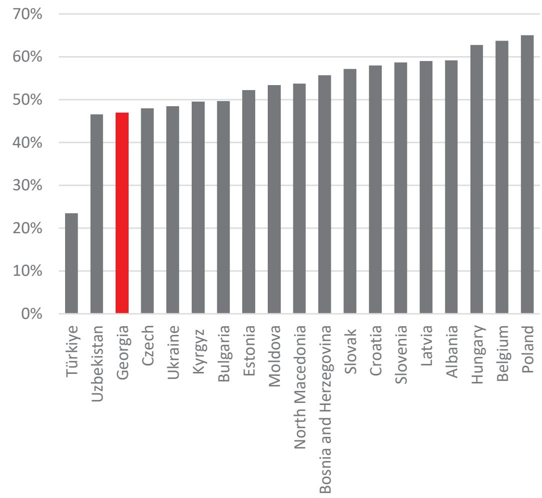
38 See https://nbg.gov.ge/en/page/financial-innovation-office

39 See https://nbg.gov.ge/en/page/regulatory-laboratory

Despite the tense geopolitical situation, the banking sector has not experienced significant cybersecurity threats. However, the expanding use of technology within the financial system does elevate associated risks. Against the backdrop of the tense geopolitical situation, cyber security risks are becoming more complex and pose a greater threat globally.[40] During the past year, cyber-attacks did not increase significantly, with only a small number of "phishing" and distributed denial-of-service (DDoS) attacks detected in the Georgian financial system. However, as remote service channels and financial technologies continue to advance, maintaining and ensuring cybersecurity at an optimal level stands out as one of the foremost challenges facing the financial sector. Considering this, according to the current cybersecurity supervisory requirements, Georgian commercial banks are required to implement and regularly evaluate their cybersecurity controls. Compared to 2021, in 2022, the total operational losses of Georgian commercial banks increased by 30 percent and totaled GEL 39.3 million. These operational losses were mainly recorded in the business lines of retail banking services and, to some extent, in commercial banking services.

The non-banking financial sector has solid liquidity and capital buffers. Georgia has one of the highest levels of household accessibility to formal banking services, which indicates that demand for shadow financial services remains low.[42] In terms of accessibility to formal financial services, the role of non-banking institutions is also important. In the first half of 2023, the assets of the non-banking financial sector amounted to GEL 2.4 billion, which accounted for 3.6 percent of the total assets of the financial sector. The largest share of non-banking financial institutions' total assets, totaling GEL 1.9 billion, belongs to microfinance organizations. In June 2023, compared to the previous year, the quality of the loan portfolio of microfinance organizations improved and the NPL ratio amounted to 5.4 percent. It is noteworthy that loan dollarization in the portfolios of microfinance institutions declined significantly to nearly 1.5 percent. In the recent period, the capital adequacy ratio for microfinance organizations amounted to 38 percent, which serves as an additional buffer against potential shocks. Moreover, as a result of the liquidity requirements enacted in 2018, microfinance institutions maintain high liquidity buffers that will help them to provide financial services to customers without difficulty, even in stressful conditions. It is also noteworthy that the NBG has established a supervisory framework for micro banks and has implemented relevant licensing requirements. Micro banks, as a new type of financial institution, will be able to operate in those sectors where, due to high operating costs, the interest of commercial banks has been relatively low. In addition, the costs of micro banks, as compared to micro-finance organizations, will be significantly reduced and their access to resources in both local and international markets will increase. This, in turn, will make credit products cheaper and, accordingly, will promote an increase in competition.

Figure III.24. The ratio of non-interest expenses to income for commercial banks by country (2022)[41]



Source: NBG

40 See https://www.bis.org/fsi/publ/insights50.pdf

41 In the indicator, as calculated by the IMF's methodology, "commission and other expenses received from services" are included in non-interest expenses, while in Figure III.23 these expenses are deducted from non-interest income.

42 See https://data.imf.org/?sk=388dfa60-1d26-4ade-b505-a05a558d9a42

Macro-Financial Risk Scenarios

A quantitative assessment of financial sector resilience under various macro-financial risk scenarios is an important part of financial stability analysis. The macro-financial risk scenarios are based on the risks and vulnerabilities that have been discussed in the previous chapters of this report. In order to inform macroprudential policy about existing trade-offs and the impact of adverse external developments on the domestic economy and financial system, different risk scenarios are assessed over a three-year horizon.

Two risk scenarios are considered in order to capture the downside risks originating from adverse global and regional developments in the macro-financial environment. One scenario reflects reasonably likely and moderately adverse outcomes, while the other replicates unlikely, but still plausible, instances of severe stress. This approach permits an examination of how the domestic economy would perform under varying degrees of stress and reveals the possible nonlinear effects of external shocks. The risk scenarios are benchmarked against a baseline based on the NBG's macroeconomic forecast as published in the August 2023 Monetary Policy Report.[43]

The moderate-risk scenario considers the tightening of global financial conditions amid the maintenance of a high inflationary environment and the imposition of additional sanctions on Russia due to the prolongation of the Russia-Ukraine war. A prolonged war will likely lead to new sanctions on Russia, which would cause additional supply chain disruptions and further complicate trade flows. Moreover, as a result of the Russia's withdrawal from the Black Sea grain agreement, the price of raw food materials is expected to increase in the short term, which will prolong the high-inflationary environment in both advanced and less developed countries. This will be answered by a more rigid response from the world's central banks than had been expected, which will result in an additional tightening of global monetary policies. This will create risks of recession in some countries. In addition, a long-term tightening of global financial conditions will lead to a risk reassessment by investors, which will be reflected in the outflow of capital from emerging and developing markets. All of this, along with protracted unfavorable economic conditions and increased interest costs in such countries, will put additional pressure on households and companies, and delay the economic recovery.

In the moderate-risk scenario, the prolongation of the Russia-Ukraine war will significantly hinder the economic recovery of Georgia's trading partner countries. As a result of globally tightened financial conditions, capital outflows and depreciated national currencies will lead to a reassessment of risks in these countries. A worsening of economic growth expectations in these countries and uncertainty related to the geopolitical situation will have a negative effect on market sentiment, and will thus decrease tourist and trade flows with Georgia. Close trade relations with Russia further aggravate the risks from the external sector, which, in the event of a tightening of sanctions on Russia, will be reflected in a significant delay in trade flows in Georgia and will lead to an additional deterioration of the current account. As a result of Georgia's high dependence on the external sector and the aforementioned risks in trading partner countries, Georgia's sovereign risk premium will remain at an elevated level in 2023 and will start to decrease only from 2024. And, as a result of the deteriorating external balance, globally tightened financial conditions and increased risks of capital outflows, there would be depreciation pressure on the exchange rate. As a result, the debt burden for foreign currency borrowers increases.

In this scenario, households and companies reduce consumption and investment spending amid deteriorating expectations and increased debt burdens. Some companies with financial stability risks will face solvency issues due to reduced revenues and increased debt servicing costs. These risks are further aggravated by the expected depreciation of the national currency and the high dollarization of loans. Moreover, a decline in both external and domestic demand may cause some businesses to close. As a result, unemployment increases and households face difficulties in servicing their debt due to reduced incomes. Meanwhile, a rise in credit risk worsens the availability of loans and further hinders the pace of economic recovery. Due to the deteriorating macroeconomic environment, under this scenario, weak real GDP growth is expected at the end of this year and in the first half of 2024. Economic growth gains an upward trend from the second half of next year.

Under the moderate-risk scenario, given the deteriorating expectations for economic growth alongside weak domestic and external demand, real estate activity declines, putting

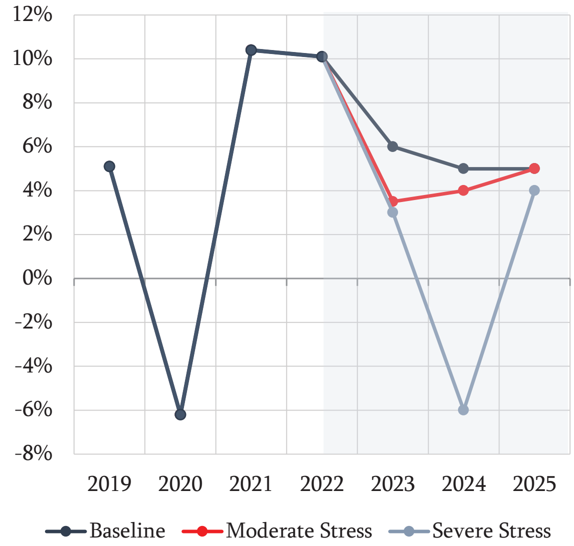
43 See https://nbg.gov.ge/fm/../2023/2023q3-eng.pdf

downward pressure on real estate prices this year. However, due to increased construction costs, as a result of increased labor force costs and a depreciated national currency, real estate prices expressed in GEL would increase. In the coming years, the increase in real estate prices will mainly be driven by improvements in expectations, and an increase in aggregate demand.

Under the moderate-risk scenario, the disinflationary effect of weak demand will be overshadowed by inflationary pressures stemming from exchange rate depreciation and rising food prices globally. As a result, inflation will remain above the target level during 2023. A higher-than-expected increase in interest rates in advanced economies would be reflected in a decrease in global demand, which, other things being equal, will put downward pressure on commodity prices in international markets. However, the aforementioned tightening of global financial conditions leads to a depreciation of the GEL exchange rate, which results in the maintenance of inflationary pressure coming from the external sector for a relatively long time, with inflation remaining above the target level in 2024. In response to inflationary expectations, monetary policy eases at a slower pace than in the baseline scenario, and exits the tightened regime as the shock wears off. Over the three-year period of the moderate-risk scenario, the total drop in GDP growth as compared to the baseline scenario is equal to 3.5 percentage points.

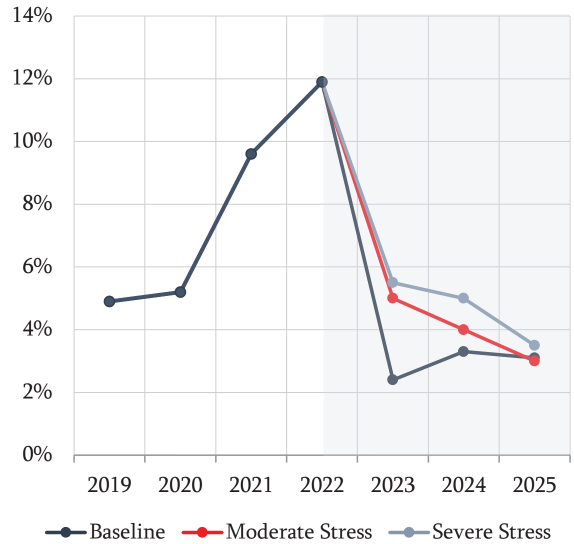
According to the severe-risk scenario, as a result of an additional increase in commodity prices, inflation continues to rise globally, which warrants the need for a further tightening of financial conditions by the leading economies. Subsequently, the tendency towards risk aversion from investors increases. In this hypothetical scenario, the prolongation of the Russia-Ukraine war represents a significant obstacle for the post-pandemic recovery of the global economy. As a result, developed countries tighten the sanctions against Russia, which further restricts trade and financial flows. Moreover, there is growing uncertainty regarding the duration of the war and its impact on the global economy. The recently reduced prices of food and oil products thus start to rise again. The world's leading central banks respond to this by sharply tightening their monetary policies. Against the backdrop of deteriorating expectations and high uncertainty, the reassessment of risks in the global financial market leads to a further tightening of financial conditions and a sharp decline in the value of investment assets. As a result, investors become more vigilant and invest their funds only in low-risk assets.

Figure III.25. Risk scenarios: average annual real GDP growth (YoY)



Source: NBG staff estimates

Figure III.26. Risk scenarios: average annual CPI inflation



Source: NBG staff estimates

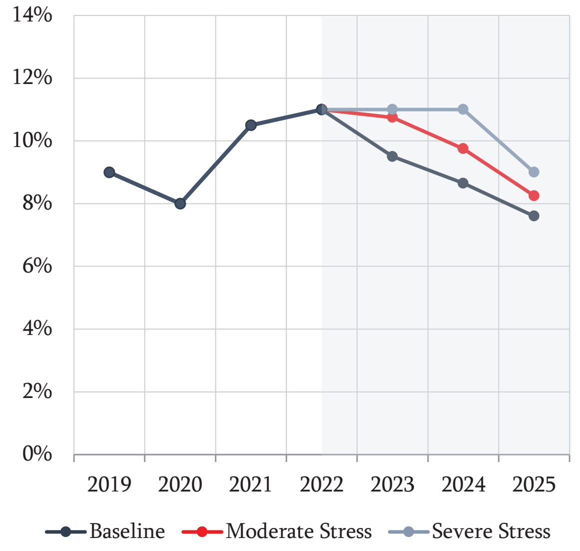
Under the severe-risk scenario, developing countries with small open economies will be in particularly difficult conditions. These countries, with Georgia's trading partners among them, would experience massive capital outflows due to risk reassessment and face risks of stagflation in the background of tightened monetary policy in response to increased inflationary expectations. As a result, their sovereign risk premia rise and local currencies depreciate sharply.

In the severe-risk scenario, weak external demand in Georgia is accompanied by a significant decrease in domestic demand, which is due to sharply worsened expectations from households and companies. In addition, taking into account the high dollarization of loans, the sharp tightening of financial conditions and currency depreciation lead to a significant increase in the debt burden, which also drags down domestic demand. Considering the sharply deteriorated financial state of borrowers and the increased debt burden, the financial system suffers significant losses. This, along with the tightening of credit conditions, additionally aggravates the state of the economy.

According to this scenario, as a result of the deteriorating macroeconomic situation in the country and increased risk aversion among investors, the country's risk premium increases. This is reflected in capital outflows and the reduction of new investment inflows. The situation is further aggravated by the depreciation of the GEL in the background of high dollarization. Furthermore, as a result of the additional sanctions imposed on Russia, the inflows of remittances are hindered. The expected decline in revenues and high uncertainty significantly reduce real estate market activity. The depreciation of the GEL, alongside increased costs of labor and construction materials will push real estate prices higher. However, as a result of increased risk, low demand, and the deterioration of the macroeconomic environment in the country, real estate prices expressed in GEL will continue to increase only slightly in the subsequent period. Due to the high uncertainty, the country is unable to utilize its production and transit potentials and, as a result, production capital decreases and unemployment increases. Considering the above, in the post-crisis period, the economy will recover only at a slow pace.

Under the severe-risk scenario, the disinflationary effect of reduced demand is stronger than under the moderate-risk scenario. On the other hand, due to the significant depreciation of the exchange rate, the contribution of the imported component of inflation, as well as intermediate costs, increase even more. As a result, overall inflation this year will be higher than under the moderate-risk scenario, and only a small decrease in inflation is expected from the second half of next year. In order to moderate inflationary expectations, monetary policy needs to be tightened more than under the moderate-risk scenario, and the return to the neutral level proceeds at a relatively slow pace. In the severe-risk scenario, the total drop in GDP growth is equal to 15 percentage points compared to the baseline scenario.

Figure III.27. Risk scenarios: annual average monetary policy rate



Source: NBG staff estimates

Table III.2. Macro-financial risk scenarios*

Variable \ Scenarios	Current value*	Baseline scenario 2023	Baseline scenario 2024	Baseline scenario 2025	Moderate risk scenario 2023	Moderate risk scenario 2024	Moderate risk scenario 2025	Severe risk scenario 2023	Severe risk scenario 2024	Severe risk scenario 2025
Fed Funds Rate	5.5%	+0.25 pp	-1.25 pp	-1.5 pp	+0.75 pp	-1.25 pp	-1.5 pp	+1.5 pp	-1.0 pp	-1.5 pp
ECB Policy Rate	4.25%	+0.25 pp	-1.0 pp	-1.25 pp	+0.75 pp	-1.0 pp	-1.0 pp	+1.75 pp	-1.25 pp	-1.25 pp
Country Risk Premium	2.5%	-0.5 pp	+0.0 pp	+0.0 pp	+1.5 pp	-0.5 pp	-1.0 pp	+2.0 pp	+0.5 pp	-1.5 pp
GEL/USD Nominal Exchange Rate***	2.64	Appr. 0%	Appr. 0%	Appr. 0%	Depr. 15%	Depr. 10%	Appr. 5%	Depr. 20%	Depr. 20%	Appr. 10%
Nominal Effective Exchange Rate Index (1995=100)***	407.1	Appr. 0%	Appr. 0%	Appr. 0%	Depr. 10%	Depr. 6%	Appr. 3%	Depr. 13%	Depr. 13%	Appr. 6%
Change in Real Estate Prices (in GEL, YoY)	8.2% (2022)	5.5%	5.5%	5.5%	6.5%	6.0%	5.5%	7.0%	3.0%	5.5%
Real GDP Growth (YoY)	10.1% (2022)	6.0%	5.0%	5.0%	3.5%	4.0%	5.0%	3.0%	-6.0%	4.0%
Unemployment Rate	17.3% (2022)	-0.8 pp	+0.0 pp	+0.0 pp	+0.7 pp	+0.5 pp	-0.5 pp	+1.2 pp	+2.5 pp	-1.0 pp
CPI Inflation (YoY)	11.9% (2022)	2.4%	3.3%	3.1%	5.0%	4.0%	3.0%	5.5%	5.0%	3.5%
Monetary Policy Rate**	10.25%	-0.75 pp	-0.85 pp	-1.15 pp	+0.5 pp	-1.0 pp	-1.5 pp	+0.75 pp	+0.0 pp	-2.0 pp

* The values under each scenario display the average change in the corresponding macro-financial indicators compared to the previous period. The numbers for 2023 show changes relative to the current values. The current values correspond to 31 July 2023, unless otherwise stated.

** The current value of the monetary policy rate reflects the Monetary Policy Committee decision made on 2 August 2023. In the scenarios, the change in the monetary policy rate corresponds to the change in the value of the rate of the given year. The current year assumption in the scenarios refers to the remaining period until the end of the year.

*** In the scenarios, the change of the exchange rates in the current year refers to the period remaining until the end of the year.

Financial Sector Resilience

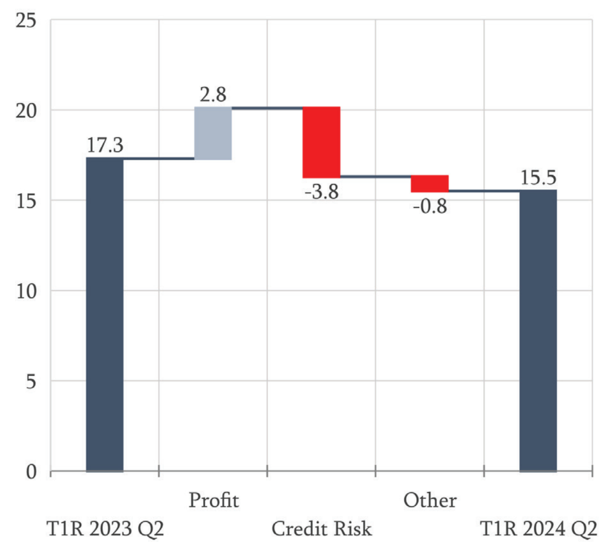
This section provides a quantitative assessment of the resilience of the banking sector in terms of the macro-financial risk scenarios discussed above. According to the results of stress tests, the banking sector remains resilient, even under the most severe scenario. Despite facing high credit losses in the event of a realization of the severe-risk scenario, the existing buffers will allow the banking system to maintain an adequate capital level.

Stress tests are a major toolkit used to evaluate the solvency of the banking system. This tool enables central banks to determine appropriate mitigation actions and to formulate policies aimed at ensuring the uninterrupted provision of financial intermediation services under conditions of stress. In 2021, the NBG launched an interactive stress test web platform. This platform allows interested parties to choose a hypothetical stress scenario for each macroeconomic variable and to observe the dynamics of an individual commercial bank's capital ratio as well as that of the banking system as a whole.[44] It should be noted that stress tests provide an analysis of hypothetical risk scenarios and the results attained are thus conditional.

Despite losses, the banking sector maintains a capital ratio well above the regulatory threshold in both the baseline and moderate-stress scenarios. Under the baseline scenario, a stable exchange rate, a decline in the unemployment rate, and the high growth of the real economy all improve the ability of households and firms to service their debts. Credit risk thereby declines. In addition, banks maintain solid profitability and the banking sector's Tier 1 capital ratio remains at around 20 percent over the three-year horizon, which is well above the regulatory minimum. Under the baseline scenario, each bank individually maintains an adequate level of the Tier 1 capital ratio. Under the moderate scenario, exchange rate fluctuations and an increase in interest rates weaken households' and firms' abilities to service their debts, which increases the credit risk. However, the operating profits of banks offset losses and the capital adequacy ratio thus declines only slightly to 17 percent.

The severe-risk scenario would impose significant losses on the banking sector, but the sector's overall capital ratio would remain above the regulatory threshold. Based on this scenario, economic activity declines significantly. Amid a protracted war in Ukraine, the risk premium increases, the exchange rate fluctuates considerably, and interest rates increase. Banks thus face sizeable credit losses and their net profits decline. The revenue generated over the first year increases the capital coefficient by 2.8 percentage points, which is not enough to compensate for the -3.8 percentage points drop in the capital ratio caused by the credit losses (see Figure III.28). Therefore, under this scenario, the capital ratio significantly deteriorates and the banking system has limited resources to provide loans to the economy. However, it should be noted that, even under the severe-risk scenario, the existing capital buffers would ensure a mitigation of potential losses. According to the scenario, some banks would need additional capital at the end of 2024 to maintain the minimum Tier 1 capital adequacy ratio. However, according to current estimates, the ownership structure of the banks would enable them to attract additional capital. Therefore, the capital losses identified under this scenario are not significant enough to constitute a risk to the sector's stability or resilience. It should also be noted that, starting from 2025, the capital adequacy of banks would start to gradually recover as a result of improved asset quality and stable operating profits (see Figure III.29).

Figure III.28. Decomposition of the change in the Tier 1 capital ratio of the banking sector under the severe-risk scenario(%)[45]



Source: NBG

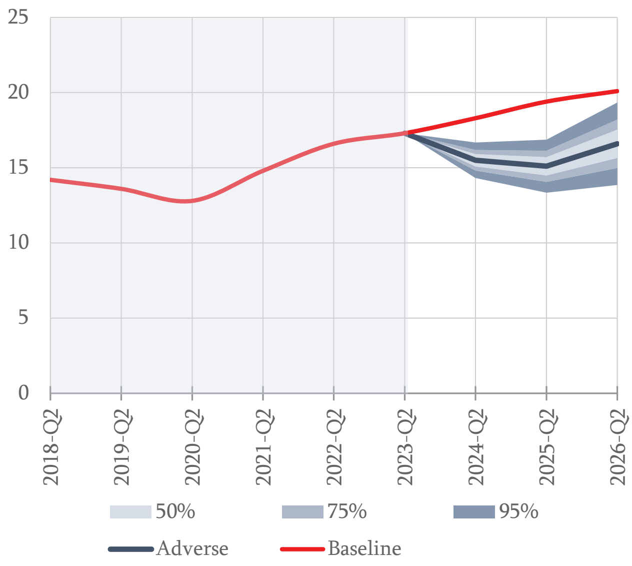
44 See https://nbg.gov.ge/en/page/interactive-stress-test

45 "Other" factors include the sum of the revaluation effects of assets and additional capital due to exchange rate volatility. Also, it should be noted that the total capital requirement for medium banks is in the 10.8%-16.7% range, and for large banks is in the 10.7%-14.3% range.

According to "reverse stress testing", the banking sector is able to mitigate an additional GEL 6.4 billion of credit losses. The goal of reverse stress testing is to assess the level of economic shocks and the increased losses under which capital buffers, on top of minimum capital requirements (the sum of minimal and combined requirements[46]), fully deplete. Considering the current level of capital adequacy, an 8.8 percent decline of capital buffers was analyzed, which equals to credit losses of around GEL 6.4 billion. The non-performing loan ratio would need to be nine times higher and to exceed 30 percent to obtain such losses. These losses could be attained in different ways, however, in aggregate, real economic losses in 2023-2024 would need to exceed those seen in 2020; in addition, there would have to be a 40 percent depreciation of the exchange rate in the first year and an additional 20 percent depreciation in the second year. It should be noted that reverse stress testing, similarly to "top-down" stress testing, does not assume any active response to the shocks from banks, nor any change to their business models, that might help them mitigate losses.

It should be noted that the National Bank of Georgia compares the results of "top-down" and supervisory "bottom-up" stress tests and, based on the results of the latter, sets additional stress test buffers for individual banks. Unlike "top-down" stress tests, which are conducted by the NBG, "bottom-up" stress tests are carried out by commercial banks following the scenarios and detailed methodology provided by the NBG. The results convey important information for analyzing financial sector vulnerability and are actively used in supervisory processes, including in the formation of Pillar 2 buffers. In addition to macroeconomic parameters, these scenarios include the distribution of shocks according to different sectors of the economy, allowing banks to assess the creditworthiness of specific borrowers and to generalize the results obtained for groups of borrowers with similar characteristics. While this approach is distinguished by its simplicity, it is the best option when there are no long historical data series available and statistical modeling thus remains highly risky. The next round of supervisory stress testing is planned for next year.

Figure III.29. Tier 1 ratio under the baseline and severe-risk scenarios (%)



Source: NBG

46 The combined buffer requirement includes the capital conservation, countercyclical, and systemic risk buffers.

Box 5. Bottom-up supervisory stress tests[47]

Bottom-up stress tests are one of the main components of the financial stability analysis framework. The purpose of imposing stress-test buffers in accordance with the results of stress tests is to determine the amount of additional capital necessary to ensure a bank is protected from supervisory default in the event of a realization of the scenarios and risk factors as specified in the supervisory stress test.

Stress-test buffers are defined for each commercial bank according to the results of their supervisory stress tests. Use of such unified stress scenarios makes macro-prudential policies more future-oriented, reduces reliance on historical data, and improves comparability among banks. In 2022, according to the NBG's methodology, commercial banks presented another round of the results of the stress tests they conducted. These showed that the banking sector in Georgia has sufficient capital buffers to withstand economic shocks and to continue credit activity during downturns of business cycles so as not to endanger the financial system.

According to the scenario, there is slowdown in global economic activity because of shock. Regional countries experience a recession, the domestic currency depreciates, and interest rates rise due to an increase in the risk premium. The main assumptions of the stress test are as follows: a depreciation of the domestic currency by 40 percent against main trade partner countries' currencies; a 2% reduction of real estate prices denominated in domestic currency, and a 30% reduction of those denominated in USD; a 1% increase in interest rates for assets, and a 2.5% increase for liabilities; a 5% reduction of interest revenues and expenses; a 5% decrease of employment; and the sectoral decline in turnover as reflected in Table B5.1.

Table B5.1.

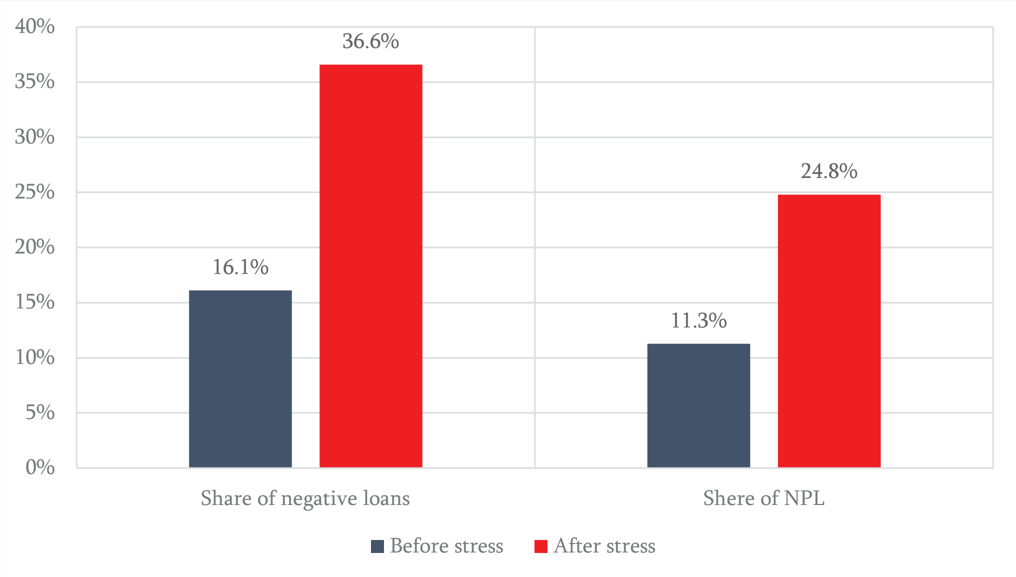
Risk Sector	Decline in Turnover
State organizations	5%
Financial institutions	5% / 10%
Pawnshop loans (gold price reduction stress)	20%
Real estate development	50%
Real estate management	30%
Construction companies (non-developers)	25%
Extraction and trade of building materials	25%
Trade of consumer goods	5%
Manufacture of consumer goods	5%
Manufacture and trade of long-term consumption products	35%
Manufacture and trade of footwear, clothing and textiles	5%
Trade (other means)	5%
Production/Manufacturing (other means)	10%
Hotels and tourism	25%
Restaurants, bars, cafes and fast-food venues	15%
Heavy industry	5%
Loans for gas stations and gasoline imports	5%
Energy	5%

47 This does not represent the final 2022 stress test results and may be subject to correction.

Risk Sector	Decline in Turnover
Car dealers	35%
Health care	5%
Pharmaceuticals	5%
Telecommunications	5%
Service	5%
Agricultural sector	5%
Other (scrap business and others)	5%

As a result of credit portfolio stress, the banking system losses from loan loss provisions exceeds GEL 3 billion. The share of negative loans[48] in the gross loan portfolio rises from 16.1% to 36.6%, while the non-performing share of loans increases from 11.3% to 24.8% (see Figure B5.1).

Figure B5.1 Share of negative and non-performing loans in the gross loan portfolio



Source: NBG

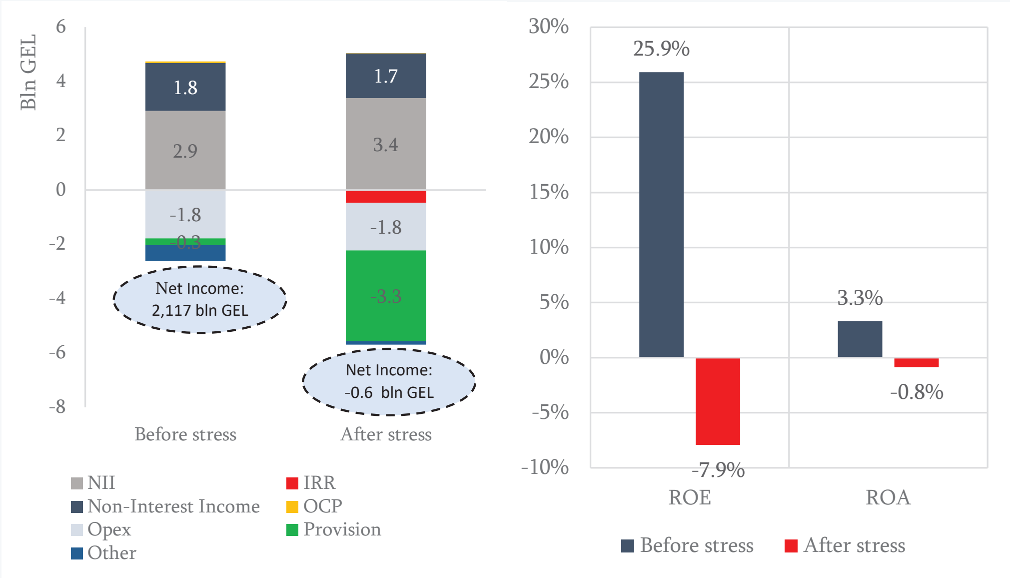
Additionally, the assumptions in the scenario have various effects on income statements:

- Because of the depreciation of the FX rate, it is necessary to revalue banks' currency positions. Before the conduct of the stress test, the banking system had an insignificantly short position in foreign currency, therefore a 40% decrease in FX rates caused a GEL 7.8 million loss for the system.
- A significant effect was caused by a 1.5% worsening of the interest margin. The income statement was recalculated for a one-year period after the revaluation of the interest gap, taking into account increased interest rates. Increased interest rates were used for both floating and fixed interest rate assets/liabilities that were substituted by the same type of assets/liabilities after expiration. The hedge effect was used for the part of the interest gap that was included in the stress test. Consequently, the banking sector faced losses of GEL 467 million.
- Non-interest revenues and expenses were affected by a 5% decrease in accordance with the scenario. The deterioration in real estate prices had an additional effect as a result of the property owned or repossessed by banks.

48 Loans classified in the watch, substandard, doubtful, or loss categories follow the asset classification regulation for commercial banks effective in 2022.

The sum of after-stress losses indicates a significant decrease in banking system profitability. In particular, after-stress losses reach GEL 645 billion, while the system had operated with a profit of GEL 2,117 million before the stress. The stress also caused a deterioration of system efficiency; the net interest margin decreased from 4.6% to 3.8% and the cost-to-revenue ratio increased from 37% to 38% at the same time.

Figure B5.2 Decomposition of profit and profitability ratios*



* ROE is net income divided by the one-year average of shareholder equity; ROA is net income divided by the one-year average of total assets.

Source: NBG

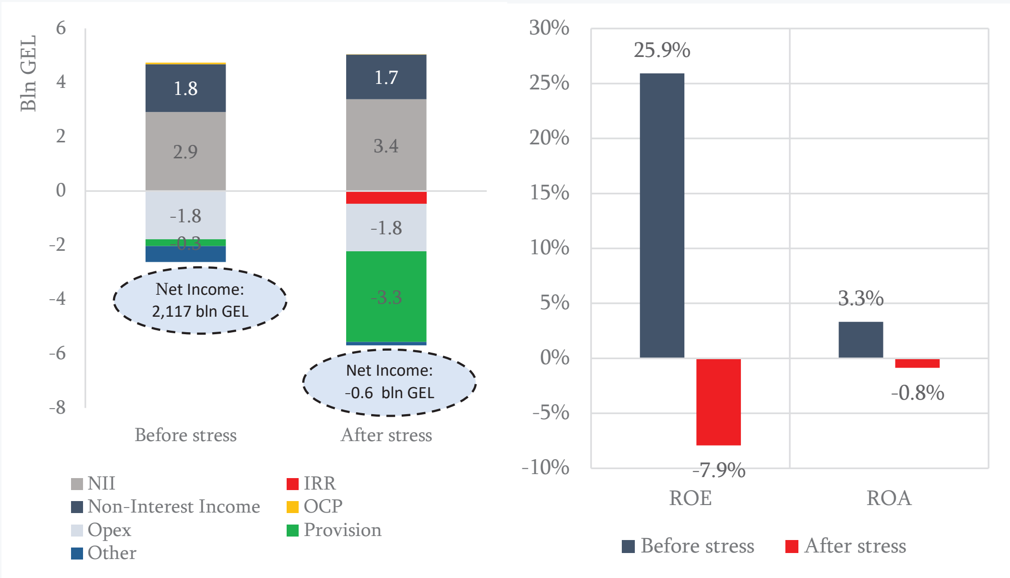
The stress test aims to measure the readiness of the banking sector to face serious and possible stress, while maintaining capital adequacy in accordance with the regulatory requirements. The main purpose of the capital conservation and countercyclical buffers is to accumulate enough capital in the banking system to help banks absorb systemic losses arising from stress. In addition, the currency induced credit risk (CICR) buffer reduces systemic risks caused by dollarization.

The capital that commercial banks require to handle stress is already considered in the capital conservation and countercyclical buffers and by one third of the currency induced credit risk buffer. In order to avoid a double requirement, the amount of capital that is already captured by the conservation, currency induced credit risk, and countercyclical buffers is deducted from the gross capital amount needed in stressed conditions to calculate the net stress test buffer.

Supervisory stress test results show that five banks were below the minimum capital requirements, while eight banks remained above those requirements and would continue operating with substantial capital. At the moment of stress testing, the system and individual banks operated with large capital buffers. Those buffers – in addition to the conservation, currency induced credit risk and countercyclical buffers, which are meant to be released during periods of stress – enable the banking sector to absorb the losses resulting from the performed stress test scenario.[49]

49 These calculations are based on CET1 data.

Figure B5.3. Capital ratios*



* The conservation, countercyclical and one third of the currency induced credit risk buffers are deducted.

Source: NBG

The individually calculated stress test results for each bank vary within 0-5.0% of their total risk weighted assets, which indicates a sufficient difference between banks' data and underlines their vulnerability to economic shocks.

IV. Financial Stability Policy Measures and Recommendations

Supporting the sustainable functioning of the financial sector in Georgia and promoting financial stability are some of the most important functions of the National Bank. For this purpose, the NBG implemented a number of macroprudential and microprudential measures in previous years. As a result of the financial stability policy implemented by the National Bank, the financial sector remains resilient and continues smooth lending to the economy. Banks' financial indicators have improved and the majority of them have already recovered the capital buffers that were released during the pandemic. Accordingly, a significant number of banks will be able to meet the positive buffer requirement established within the updated countercyclical buffer framework with internal sources, existing profitability, and the capital adequacy buffers. Against the backdrop of high economic growth and the strengthening of the domestic currency, the credit-to-GDP ratio remains below the trend. However, it is expected that the growth of the credit portfolio over the next year will be in line with nominal economic growth. Therefore, there is no need to change the countercyclical buffer over the existing level and the NBG has left it unchanged at 1%. The National Bank continuously monitors the situation and actively continues to work to support the stability of the financial system.

Due to the financial stability policy implemented by the National Bank of Georgia, the financial sector remains resilient and continues smooth lending to the economy. As of June 2023, credit activity is at a sustainable level, banks maintain healthy capital and liquidity indicators, while asset quality has improved compared to the previous year. Similar to the previous year, banks started 2023 with solid profit that was supported by growing credit activity and small credit losses. The improved financial indicators allowed the majority of banks to recover the capital buffers that had been released during the pandemic. The stability of the financial sector is reflected in the results of both top-down and bottom-up stress tests, according to which the banking sector has sufficient buffers to continue credit activity in the face of economic shocks, and the stability of the financial system is not threatened.

In March 2023, the Financial Stability Committee of the National Bank of Georgia decided to set the neutral (base) rate of the countercyclical capital buffer at 1%. This decision is in line with the recommendations of the Basel Committee regarding the update of the countercyclical capital buffer framework; according to which, in order to accumulate capital buffers for stressful periods, it is appropriate to establish a neutral positive countercyclical capital buffer. While the previous base rate for the countercyclical capital buffer was zero in normal times and increased in the event of excess credit activity, according to the new framework the base rate for the positive cycle-neutral countercyclical capital buffer has been set at 1% in normal periods. The neutral positive countercyclical capital buffer rate for countries that have moved onto the new framework is between 1% and 2%. Taking into account international experience, the National Bank has set the cycle-neutral countercyclical capital buffer at 1%.

In June 2023, the annual growth of the credit portfolio, excluding the exchange rate effect, amounted to 13.4%, which is considered a sustainable level of credit growth. These dynamics were mainly driven by business loans, although the contribution of consumer loans was also significant. The growth rate of consumer loans has somewhat decreased over the last year, which was facilitated by the temporary reduction of the maximum maturity of consumer loans from four to three years by the National Bank. However, the growth rate of such loans remains noteworthy. Over the past two years, the credit-to-GDP ratio has been characterized by a decreasing trend, which reflects the effect of high economic growth and the strengthening of the domestic currency. Consequently, in the second quarter of 2023, the credit-to-GDP ratio remains below its long run trend. However, the existing level of Georgia's credit-to-GDP ratio is comparable to that of peer countries. While this ratio is expected to remain below the trend until the end of 2023, the credit-to-GDP gap will gradually close in 2024. Therefore, there is no need to change the countercyclical buffer in the current period.

Amid measures taken by the National Bank, dollarization has declined significantly; however, it remains, alongside related structural

risks, one of the main challenges for the financial sector. Foreign currency-denominated loans are associated with both exchange rate risk and interest rate risk. Exchange rate risk is especially noteworthy in the event of a high share of foreign currency loans and increased exchange rate volatility. This risk is further aggravated by the increased uncertainty regarding regional macro-economic dynamics in the background of a possible prolongation of the Russia-Ukraine war. This would be accompanied by significantly increased interest rates on the US dollar and euro in response to global inflation. In the event of a lower-than-expected reduction in global inflation, the monetary policies of the US and Europe are likely to be additionally tightened and/or maintained at a tight level for a longer period of time, which would make the interest rate risk more noteworthy in the medium term. Against this background, financial dollarization poses an important challenge to unhedged borrowers and to the financial system in general. The National Bank thus actively continues working on the reduction of structural risks caused by the high level of dollarization.

The National Bank set the Minimum Requirement for Own Funds and Eligible Liabilities (MREL) for systemically important commercial banks to further support financial stability. The recommendation to establish this requirement was given in 2021 with the joint Financial Sector Assessment Program of Georgia by the International Monetary Fund and the World Bank, and the regulation is based on the common practice envisaged by the framework of the European Bank Recovery and Resolution Directive (BRRD). The purpose of the MREL is to ex-ante create such a structure of balance sheets by commercial banks, which will contribute to the stability of the bank through recapitalization in a stressed situation. The Minimum Requirement for Own Funds and Eligible Liabilities for systemic commercial banks is determined with the following amount and terms: from 1st January of 2024 – 10%, from 31st December of 2025 – 15%, and from 31st December of 2027 – 20%. Apart from that, from 2024, systemic banks are required to submit monthly reports to the National Bank of Georgia using corresponding forms.

The sources of banks' funding are stable, and liquidity is maintained at an adequate level. This has been facilitated by imposing the Liquidity Coverage (LCR) and Net Stable Funding (NSFR) ratios in previous years. In addition, due to the historically less stable nature of deposits placed by non-resident natural and legal persons, the National Bank maintains higher liquidity requirements for non-residents' deposits. Following the Russian invasion of Ukraine, foreign currency deposits placed by Russian residents in Georgia have increased substantially, which, in turn, creates concentration risk and negatively affects the liquidity position of the system. Given the uncertainty related to the duration of the Russia-Ukraine war and geopolitical tensions in the region, this capital inflow may be temporary in nature. Therefore, it is advisable to keep it in liquid funds. Consequently, the National Bank has increased the liquidity requirement (outflow ratio) for Russian residents' deposits in foreign currency.

Continuing the practice first introduced in 2020, the National Bank of Georgia has published a new supervisory strategy document for the period 2023-2025. The new strategy document outlines the priorities for the National Bank's 2023-2025 supervisory strategy, planned activities and the corresponding action plan, as well as providing a summary report on the performance of the 2020-2022 supervisory strategy. The development of the new strategy was carried out with greater involvement of the private and civil sectors. The strategy aims to facilitate access to information on supervisory priorities and plans and is aimed at investors, international financial institutions, rating companies, the public, and other stakeholders. Although the supervisory priorities remain unchanged over the three years, the NBG updates this strategy annually to reflect changes in supervisory priorities and the timing of implementation; this, in turn, supports the efficient implementation of the National Bank's supervisory mandate and mission.

The National Bank of Georgia continues to monitor the country's financial stability and works to support the sustainability of the financial system. The National Bank is constantly monitoring the situation and will use all the tools at its disposal to reduce the impact of potential threats caused by the complex geopolitical situation in the region on the country's economy and to ensure financial stability. After successfully overcoming multifaceted global and regional challenges in recent years, the asset quality and profitability of the banking sector have improved. Banks maintain healthy capital and liquidity indicators. Most of them were able to recover the buffers that were released at the beginning of the pandemic before the date set by the NBG. In addition, amid the measures taken by the National Bank and the tightened monetary policy, loan growth approached a sustainable level. However, it should be noted that high uncertainty remains in terms of assessing the duration of the Russia-Ukraine war, a possible escalation of the conflict, an additional tightening of sanctions against Russia, and regarding the potential impact of such developments on the economy and financial sector. The National Bank continues to actively monitor the country's financial stability, assess domestic and foreign risks, and ensures financial stability through the utilization of a variety of macroprudential and microprudential instruments (see Table IV.1). Furthermore, the non-banking sector, which is also required to meet prudential requirements, remains resilient.

Table IV.1. Macroprudential measures of the NBG

Instrument	Rate	From
Counter-cyclical buffer	1%	15.03.2024
Systemic Buffers JSC "TBC Bank" JSC "Bank of Georgia" JSC "Liberty Bank"	 2.5% 2.5% 1.0%	 31.12.2021 23.01.2023
Conservation buffer	2.5%	01.01. 2024
Pillar 2 buffers CET1 Pillar 2 Requirement Consolidated Range Tier 1 Pillar2 Requirement Consolidated Range Regulatory capital Pillar 2 Requirement Consolidated Range	2.5% 1.8% - 8.0% 3.4% 2.3% - 10.6% 4.5% 3.1% - 14.9%	As of 30.06.2023 As of 30.06.2023 As of 30.06.2023 As of 30.06.2023 As of 30.06.2023 As of 30.06.2023
Total Regulatory Capital Requirements (including buffers) Common Equity Tier 1 (CET1) requirements (including buffers)	13.62% - 22.2% 8.3% - 13.1%	As of 30.06.2023
Leverage ratio	5%	26.09.2018
Payment-to-Income limit (PTI) For loans in foreign currency (unless income is in the same currency) Monthly net income<1500 GEL Monthly net income>=1500 GEL For loans in GEL (or in foreign currency if the borrower's income is in the same currency) Monthly net income<1500 GEL Monthly net income>=1500 GEL	20% 30% 25% 50%	01.04.2022 01.04.2022
Loan-to-Value limit (LTV) for GEL loans for foreign currency loans	 85% 70%	 01.01.2019 01.01.2019
Liquidity coverage ratio (LCR) requirements in All currencies (Cumulative) GEL Foreign currency	 100% 75% 100%	 01.09.2017 01.09.2017 01.09.2017
Net Stable Funding Ratio (NFSR)	100%	01.09.2019
Limits on open foreign exchange positions	20% of regulatory capital	20.07.2006
Reserve requirements for National currency for liabilities with the remaining maturity up to 1 year Foreign currency for liabilities with the remaining maturity up to 1 year for liabilities with the remaining maturity between 1-2 years	5% 10-25% 10-15%	25.07.2018 05.08.2021 05.08.2021
Restrictions on foreign currency loans	Below 200,000 GEL[50]	22.12.2018

50 This restriction is imposed by the Parliament of Georgia.

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