



საქართველოს ეროვნული ბანკი
National Bank of Georgia

Financial Stability Report 2022



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. This is a cornerstone for the sustainable development of the economy.

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

This analysis draws on data available up to 30 June 2022 unless otherwise stated.

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Executive Summary

Due to the macroprudential and microprudential measures taken by the National Bank of Georgia (NBG) before the pandemic, alongside the financial stability policy implemented since the start of the pandemic and the outbreak of the Russia-Ukraine war, the financial sector remains resilient and continues smooth lending to the economy. The majority of Georgian commercial banks have already recovered the capital buffers that were released during the pandemic and were able to meet the threats related to regional geopolitical tensions with solid buffers. The financial sector's preparedness was further facilitated by the sustainability of the asset quality of banks, which was greatly supported by the macroprudential measures implemented in the pre-crisis period to reduce household over-indebtedness and loan dollarization. In addition, in order to improve borrowers' creditworthiness, the National Bank updated certain requirements of the Responsible Lending Regulation this year. As a consequence, financial indicators have improved, which further indicates the healthiness of the country's financial system. Moreover, the non-banking sector, which must also meet prudential requirements, remains resilient.

Financial stability risks that arose during the pandemic have increased against the backdrop of the Russia-Ukraine war. 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. Georgia's economy began to improve alongside the global economic recovery in the second half of 2021. However, in the first quarter of 2022, in the wake of the Russia-Ukraine war, risks to financial stability increased. The increase in global inflation is particularly noteworthy, which was caused by the rapid recovery of demand and by the increase in prices of goods and energy products against the background of the Russia-Ukraine war and the attendant sanctions imposed against Russia. This risk is exacerbated by worsening supply chain problems and by a global tightening of monetary policy in response to the high inflation, all of which is reflected on the Georgian economy and its financial sector. With the improvement of the foreign sector, an increase in external demand and financial inflows into Georgia is expected. Although the latter will contribute to economic growth, it will also increase Georgia's exposure to balance of payment inflows and may again become a source of risk in the future. Such a risk is particularly noteworthy in light of the tightening of monetary policy in developed countries and the increase in regional sovereign risk premia. Financial stability risks stemming from the external sector are therefore significantly dependent on risk factors such as prolonged regional geopolitical tension, a slower-than-expected pace of the global economic recovery, and an upward revision of risk premia in developing countries.

Amid the improved economic situation in 2022, compared to the previous year, the credit risk of households has decreased. During the pandemic, a deterioration of households' creditworthiness was reflected in an increased share of non-performing loans; however, as the economy recovered, the share of non-performing loans decreased, and the quality of loans, especially those issued in foreign currency, improved significantly. Despite this positive trend, the high growth rate of consumer loans and inflation continue to be especially significant, since the latter is negatively reflected on households' real incomes. Households with low incomes and a high debt service burden are particularly vulnerable to this risk. The increase in foreign currency interest rates, against the backdrop of globally increased inflation, is also noteworthy as this also affects households' debt service burden. Despite having a declining trend, loan dollarization re-

mains a major challenge. However, the responsible lending and de-dollarization policies implemented by the National Bank of Georgia prevents an additional accumulation of such risks.

Despite the increased uncertainty amid the pandemic and the Russia-Ukraine war, non-financial companies in Georgia remain resilient. In the wake of over-coming pandemic-related difficulties, the revenues of non-financial firms have started to recover in both large- as well as in small- and medium-sized enterprises. However, in the background of the war, and as a result of a significant increase in the prices of fuel and intermediate goods, uncertainty also increased regarding the ability of companies to maintain the high turnover as had been recorded at the beginning of the year. In this regard, particularly noteworthy are those companies that have been directly affected by the situation created by the war, where an increase in the debt burden is already noticeable. The financial vulnerability of companies is also determined by their significant dependence on foreign sources of financing, their significant share of short-term debt and a high dollarization of their liabilities. Despite the increase in companies' credit risk during the pandemic, they were able to maintain access to financial resources, mainly due to the support measures taken by the National Bank of Georgia and the Government of Georgia, as well as the grace periods for loans offered by commercial banks. Consequently, the share of bank loans as sources of funding for companies has increased. In the face of increased uncertainty, bank loans will continue to be the main source of financing for companies. Under these conditions, the ability of financial institutions to identify viable companies – including those whose financial difficulties are only caused by temporary disruptions in global supply – will play a crucial role in their recovery and will contribute to overall economic growth. This will facilitate a growth in employment and, at the same time, will support financial resilience in the medium and long term.





In the real estate market, a trend of rising house and rental prices has been detected, which is a consequence of increased demand and higher costs of construction. The real estate market was resilient before the pandemic, which, along with measures taken by the government, helped the sector overcome the pandemic crisis. In light of this, there had been no significant adjustment of real estate prices in previous years. However, during 2022, dynamics of increasing house prices in both GEL and USD have been observed. This trend has been seen in other countries too, especially after the start of the pandemic. This was partly due to the transition to online modes of work and a corresponding need or desire to improve living conditions. In addition, demand for real estate increased as a result of increased migration into Georgia after the start of the war in Ukraine. Construction costs have risen as well, which further increases the price of real estate. It is also important to note the significant improvement of the capitalization index, which is a measure of the investment attractiveness of property. In overall terms, despite a slight decrease in 2022, the affordability of real estate remains at a high level, which is an important fundamental factor influencing demand. Based on the data available to the National Bank, the real estate market remains stable; however, the Russia-Ukraine war significantly increases uncertainty in the region, which could become a source of accumulation of risks in the sector. 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. Monitoring the real estate market thus gains particular importance.

As a result of the financial stability policy measures implemented by the National Bank of Georgia, the financial system remained stable and has continued lending to the economy in 2022 without any difficulties. The financial sector has successfully overcome the rather severe phase of the shock caused by the pandemic and remains stable despite the increased risks related to the Russia-Ukraine war. In 2021, the asset quality, profitability, capital, and liquidity ratios of the banking system improved, which were reflected in a reduction of the financial stress index. The credit-to-GDP ratio remained above its long-term

trend in 2021, however, due to the high economic growth and the appreciation of local currency, the credit-to-GDP gap decreased significantly and, in the second quarter of 2022, the credit-to-GDP ratio slightly lagged behind its long-term trend. Despite this recent trend, the existing level of the credit-to-GDP ratio in Georgia is still high in comparison with peer countries, which is an additional indicator of the high debt burden and vulnerability. Until the end of 2022 the credit-to-GDP ratio is expected to remain below its trend, while in 2023 credit growth 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, with relevant situation-based calibration, to reduce the impact of potential threats – including those stemming from the complex geopolitical situation in the region – on the country's economy to ensure financial stability. It should also be noted that the impact of the pandemic shock on the financial sector has already largely been reflected. However, high uncertainty remains with respect to the duration of the Russia-Ukraine war, the possible tightening of sanctions against Russia, and China's anti-COVID policies and their impact on the economy and the financial sector. The National Bank continues to actively monitor the country's financial stability, assess domestic and foreign risks, and 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						
<p>Uncertainty related to the duration of the Russia-Ukraine war and its impact on the economy. Uncertainty remains at a higher-than-usual level regarding the duration of the Russia-Ukraine war and the possible tightening of sanctions against Russia. The potential risks related to this are predominantly downside. A deterioration of the situation regarding the war in Ukraine may have a significant impact on investor sentiment in the region and could 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. Considering the high level of dollarization in the economy, a materialization of this risk will have a significant impact on both inflation and the quality of the loan portfolio.</p>							
<p>A greater-than-anticipated tightening of monetary policy by leading central banks in response to globally high inflation. Global inflation – the rise of which was caused by the rapid recovery of demand on the one hand, and, on the other hand, by the increase in prices of goods and energy products in the background of the Russia-Ukraine war, and supply chain disruptions amid the pandemic – has become a new challenge for central banks around the world. Wage growth is still lagging behind price growth. However, as changes in prices become more synchronized, a wage-price spiral may be formed, which will be reflected in increased inflation expectations and will require more radical monetary policy tightening from leading central banks. This will lead to the reassessment of risks on financial markets, which will be reflected in a tightening of financial conditions. As a result, developing and emerging economies will have limited access to foreign financing sources and the burden of foreign debt will increase.</p>							
<p>The Russia-Ukraine war significantly increases uncertainty in the region, which can become a source of risks being accumulated in the real estate sector. In 2022, a dynamic of increasing house prices has been detected in both GEL and USD. This is a result of increased demand for real estate amid increased migration to the country after the start of the war, and, on the other hand, a result of an increase in construction costs. Currently, the real estate market maintains stability, however, the Russia-Ukraine war significantly increases uncertainty in the region, which could become a source of risks being accumulated in the sector. 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 risks.</p>							
<p>Deterioration of external factors. The consequences of the Russia-Ukraine war have a particularly strong impact on Georgia's trading partner countries, because they are either parties directly involved in the war or those that have close trade relations with the latter. In the case of a prolongation of the conflict or a tightening of sanctions on Russia by Europe, it is expected that the adverse consequences will gradually be reflected on both remittances and foreign trade, and, therefore, on the economic recovery of the country. With deteriorating expectations, the financial sector may tighten credit conditions, further exacerbating economic drawbacks..</p>							
<p>1 = minor risk and 6 = major risk. The arrow indicates changes in the risk level from the previous year</p>							
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I. Macro-Financial Environment and Outlook

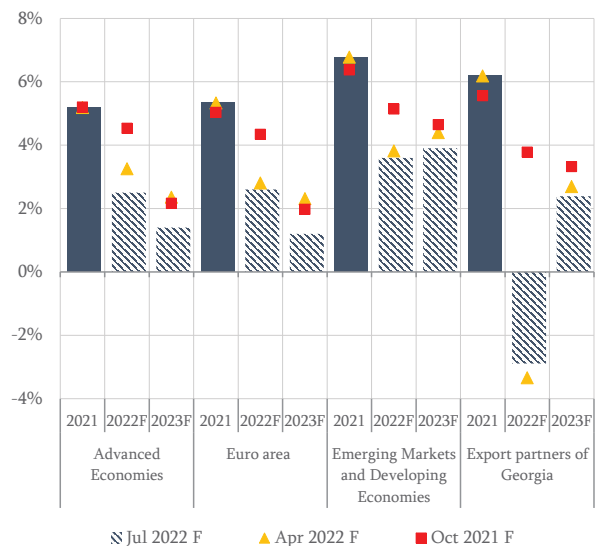
Russia's invasion of Ukraine has caused the largest humanitarian crisis since World War II and has significantly hampered the post-pandemic global economic recovery. In the wake of the war and the sanctions imposed on Russia in response, the outlook for global economic growth in 2022 has deteriorated significantly and the world has faced the challenge of global inflation. The vulnerability of developing and emerging economies remains high due to the tightening of financial conditions, increased risks of debt refinancing, and the burden of debt accumulated as a result of measures taken during the pandemic. Moreover, the tense geopolitical situation poses additional risks to the countries of the region. Each of these factors create threats to the domestic macro-financial environment.

The ongoing war in Ukraine has caused the largest humanitarian crisis since World War II and has significantly hampered the post-pandemic global economic recovery. The world started a rapid economic recovery in 2021, which further emphasizes the unique nature of the recession caused by the COVID-19 pandemic. Upon the lifting of those restrictions that had been introduced to contain the pandemic, global economic activity increased rapidly and significantly. The unprecedented fiscal, monetary and macroprudential measures implemented during the pandemic also significantly contributed to the economic recovery. However, this positive trend did not last long. The global economy, weakened by the pandemic, soon faced new challenges. Inflation reached a higher-than-expected level in almost all countries, especially in America and Europe, which, in turn, contributed to the tightening of financial conditions. This was compounded by the worsening pandemic situation in China, the containment measures imposed in response, and the disrupted supply chains left in its wake. The economic environment was particularly worsened by Russia's invasion of Ukraine in February. The war is an important geopolitical event and a humanitarian tragedy that has been accompanied by a particularly large economic cost. The latter shock, in content, is stagflationary and its impact on the countries of the world is heterogeneous.

In 2022, the world economic outlook has worsened significantly. Global economic activity grew more than expected in the first half of 2022, however global real gross domestic product contracted in the second quarter for the first

1 The IMF's July forecast has only been updated for some countries. Georgia's export partners include its seven main trading partners, but the April forecast was only updated for three of these. For the other four countries, the same forecasts have been used.

Figure I.1. Economic growth in a selected group of economies¹



Source: World Economic Outlook (WEO), NBG, NBU.

time since 2020. Global economic growth forecasts have worsened, especially for countries directly affected by the war and accompanying sanctions. The International Monetary Fund (IMF) estimated global growth of 6.1 percent in 2021 and predicts a rate of 3.2 percent in 2022, which is 0.4 percentage points (pp) lower than the forecast of April 2022 (see Figure I.1). The economic outlook has worsened, especially for advanced economies, largely reflecting the impact of the Russia-Ukraine war and the tightening of monetary policy by central banks amid rising inflation. For emerging and developing economies, the picture is relatively mixed. In the wake of the worsening pandemic situation in China, economic prospects for emerging Asia have worsened. Meanwhile, forecasts were revised in a positive direction or remained unchanged for other developing and emerging economies.

Global inflation poses new challenges to central banks all over the world. Since 2021, global prices have risen faster than expected. The rapid increase in global inflation was caused, on the one hand, by the rapid recovery of demand, which, in return, is the result of large-scale fiscal stimulus and the release of pent-up of demand after the pandemic. On the other hand, the increase in prices was caused by factors such as increased commodity and energy prices in the wake of the Russia-Ukraine war, the sanctions imposed on Russia in response, and supply chain disruptions in a number of sectors. Wage growth has so far lagged behind price growth in both advanced and emerging economies. However, the formation of a wage-price spiral may become a new challenge for central banks. In general, when sector-specific or relative prices increase this has less of an impact on the overall behavior of consumers and allows inflation to return to the target rate quickly. On the other hand, more synchronized price changes have a stronger impact on consumer behavior. They demand higher wages, which leads to the formation of a wage-price spiral and makes it difficult for monetary policymakers to anchor inflation. The probability of the development of such a spiral increases with the inflation rate. According to the July forecast of the International Monetary Fund, global inflation in the last quarter of 2022 will be 8.3%, which is 1.4 percentage points higher compared to the April forecast. The worsening of the inflation forecasts was largely caused by the situation in developed countries. Longer-term global inflation forecasts have also been revised upward, albeit to a lesser extent (see Figure I.2). Global inflation is expected to return to pre-pandemic levels by the end of 2024.

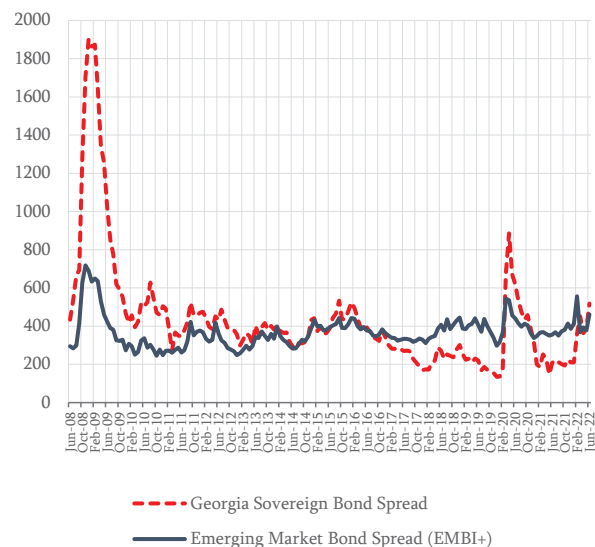
The uncertainty surrounding economic forecasts remains higher than usual due to the circumstances such as the duration of the Russia-Ukraine war, the possible tightening of sanctions against Russia, and China’s anti-COVID policies. In response to the major increase in global inflation, central banks have significantly tightened their monetary policies, which ensures the stability of long-term inflation expectations. Furthermore, a number of agreements were reached regarding both the export of grain from Ukraine and Russia’s supply of gas to Europe. However, uncertainty surrounding economic forecasts remains high. Potential risks are largely on the negative side. If the war in Ukraine worsens, or a maximum price limit is imposed on Russian oil exports, it is likely that prices of energy and goods will increase even more. Disruption of supply chains in the wake of the war and China’s anti-COVID policies might further contribute to the prolongation of high

Figure I.2. Global inflation forecasts



Source: World Economic Outlook (WEO).

Figure I.3. Sovereign bond spread² (basis points)



Source: Bloomberg database

inflation. The increase in inflationary pressures requires an even more aggressive response from central banks, which, in turn, increases the risks of recession. However, in the event of an insufficient response, the probability of a wage-price spiral developing increases, which would further worsen inflation expectations and intensify the challenges faced by central banks.

Global financial conditions have tightened sig-

2 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.

nificantly over the past few months, especially in emerging markets. In response to high inflation, central banks in developed countries have continued to raise interest rates, which can lead to a further tightening of global financial conditions. This creates additional challenges for emerging economies, where local currencies risk depreciation in the wake of capital outflows and the pressure on international reserves thereby increases. The situation is further worsened by such countries having limited opportunities for fiscal support due to the measures taken in response to the pandemic. As a result, emerging market bond spreads have widened significantly (see Figure I.3). Amid the above-mentioned events, investors' risk appetites have also deteriorated. Against a backdrop of stretched valuations in a number of sectors and countries, equity prices have fallen sharply (see the Financial Stability Report 2021).

Debt vulnerability and refinancing risks are on the rise for emerging economies. As a result of the large-scale fiscal support provided to mitigate the recession caused by the pandemic, fiscal deficits and thus debt burdens have increased significantly in many countries. This was accompanied by rising interest rates in developed countries and globally tightened financial conditions. This all increases refinancing risks and, therefore, leads to debt vulnerabil-

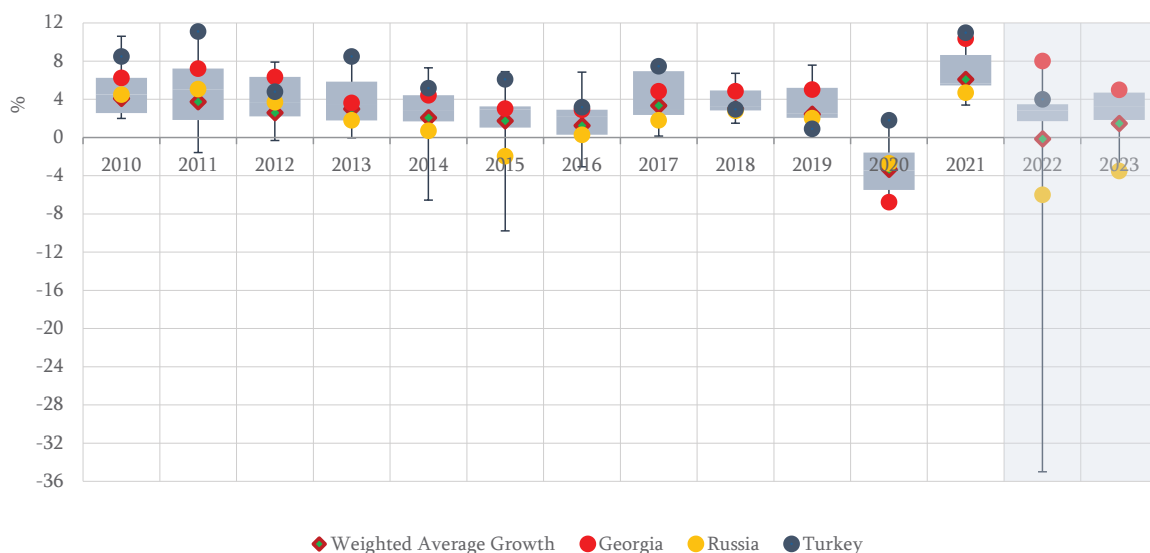
ity. The situation is further exacerbated by the delayed economic recovery in the background of the Russia-Ukraine war and the increase in sovereign risk premia.

Russia's invasion of Ukraine in February 2022 dealt a heavy blow to the economies of their trading partner countries, which were already negatively affected by the two-year global pandemic. The consequences of the war have had a particularly strong impact on Georgia's trade partners, since they are either parties directly involved in the war or those that have close trade relations with the former. Against the backdrop of the war, increased food and oil prices have significantly increased inflation in Georgia's trade partner countries, especially in the USA and Europe.

Inflation in Turkey reached an unprecedentedly high level. After the high economic activity recorded in 2021, in the first half of 2022 the pace of economic recovery in Turkey slowed significantly, consumer demand deteriorated, consumption weakened, and industrial production decreased. This was mainly due to the record depreciation of the lira, which further increases the inflationary pressure. These circumstances have been further worsened by the deteriorating foreign sector in the background of Russia-Ukraine war.

Against the backdrop of economic sanctions im-

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



Source: WEO, NBG staff calculations, NBU

posed by the West in response to the war, Russia’s economic activity deteriorated sharply in the first half of the year. Shortly after the start of the war, the ruble depreciated at a record level. Despite strengthening since then, the inflation rate has increased significantly. There are also ongoing talks on Europe imposing an embargo on Russian oil and gas, which would be a significant blow to the Russian economy.

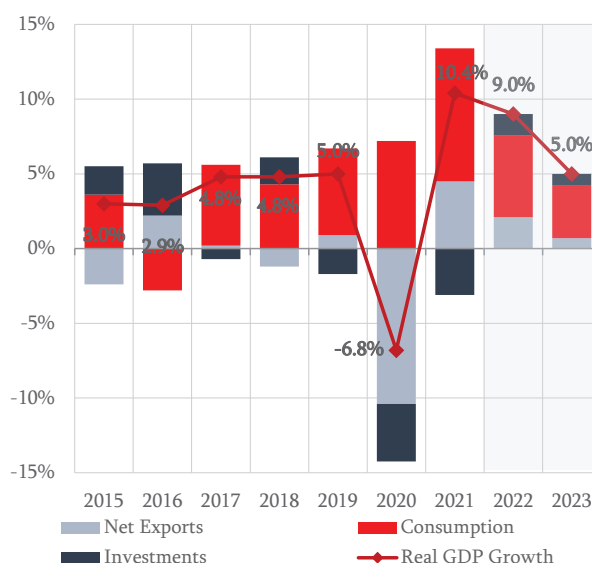
The contraction of the Russian economy also affects the economy of Armenia, for which Russia is the most important trading partner. The war has had a negative impact on Armenia’s exports. This has been further amplified amid ongoing tensions with Azerbaijan.

In Azerbaijan itself, economic growth continued to improve in the first half of 2022, which was largely a result of increasing oil prices. The industrial sector also improved, and the volume of investments increased. The foreign sector has also recovered, although it is expected that the negative consequences of the Russia-Ukraine war will gradually affect both remittances and foreign trade.

The war has had devastating consequences for Ukraine. The number of people killed in the war is increasing on daily basis and six million Ukrainians have already fled the country. As a result of the war, many cities and important infrastructure have been destroyed and the economic losses are large. According to the International Monetary Fund, Ukraine’s real economy will shrink by 35% in 2022 (see Figure I.4).

According to the NBG’s forecasts, real GDP will grow by 9 percent in 2022, mainly due to increased cash inflows and high credit activity in the first half of the year. In the second quarter of 2022, aggregate demand significantly exceeded expectations and, according to preliminary estimates, the annual growth rate amounted to 7.2percent. The main driving forces of this growth are the high of level migration from regional countries to Georgia in the background of the Russia-Ukraine war and the high credit growth in the first half of the year. All this was reflected in increased economic activity. Taking into account ongoing dynamics,

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



Source: NBG

the economic growth forecasts for 2022 were revised in a positive direction and amounted to 9percent. As a result of the above-mentioned factors, inflation has remained above its target for a prolonged period of time. It should be noted that, similar to the global economic forecast, economic forecasts for Georgia are also characterized by a high level of uncertainty.

The Russia-Ukraine war and the resulting sanctions imposed against Russia have also brought to the fore important structural issues, including energy security and climate change.

Actions to mitigate climate change have been delayed in the wake of the war. Due to energy security risks, a number of countries have been forced to expand fossil fuel production. Although these events have hindered the process of implementing climate-related policies, they have also emphasized their necessity. Any delay in taking steps to mitigate climate change will make the world’s economies more vulnerable to commodity price shocks, further fueling inflation and economic instability. In addition, the energy crisis once again emphasized just how important it is to produce clean, green energy to ensure the country’s energy independence and security.

Box 1. Analysis of climate-related risks for Georgian economic sectors and their effect on the banking sector

Climate change is a major challenge that affects all countries of the world, albeit on different scales. As a result, it becomes more and more important for financial institutions to identify, evaluate and manage risks related to climate change. This has been confirmed by the steps taken by leading central banks to analyze the risks related to climate change and their adaptation and mitigation, all of which supports financial stability.

Acute and chronic physical risks, such as natural disasters and rising temperatures over recent decades, have placed a significant toll on the economy, including on the financial sector. Particularly, economic loss caused by climate risk causes debt servicing problems for companies and households, which has a negative effect on financial institutions and creates financial stability risks. As a result, it is crucial for central bank to evaluate the potential effect of climate risk on financial institutions and their resilience.

With this purpose, the National Bank of Georgia, in cooperation with the German Sparkassenstiftung for International Cooperation (DSIK), developed a report³ on the Climate-related Risk Radar for Georgian Economic Sectors and its Possible Application for the Financial Sector. The report presents a climate risk scorecard for Georgian economic sectors, which determines the extent of the vulnerability of a particular sector to climate risk. This is followed by an evaluation of the exposure of the financial sector to high risk sectors.

The climate risk radar is used to evaluate the exposure of Georgia's economic sectors to climate risk. It is an evaluation methodology that adopts a top-down approach and is based on the available data to evaluate the potential climate risks of a sector. It covers acute and chronic physical risks, as well as transition risks. The evaluation also considers other environmental, social and governance (ESG) risks. When adopting this methodology, it is important to correctly analyze and model the transmission channels of climate risk to economic sectors. As international and local research and experience play an important role in this process, the first step of the analysis was devoted to a literature review and discussions with local experts. As a result, physical and transition risks that have the greatest impact on the Georgian economy were identified.

Sectoral vulnerability to physical risk and the risk scores were based on the potential loss caused by acute and chronic physical risks; while vulnerability to transition risk was evaluated based on the probability of change needed for a transition to a low-carbon economy. Moreover, a sector's vulnerability to other ESG risks, such as the loss of biodiversity and human rights violations, was also evaluated. As a result, a risk score was defined for each sector and a list of the most vulnerable economic activities was compiled. It should be noted that the risk radar was applied to all major sectors and sub-sectors of the economy as defined by the NACE⁴ classification. The risk radar is based on a scale of 0-10, where a higher score corresponds to higher risk. However, since both completely risk-free and particularly risky activities are both rare, the sectoral scores mostly range between 2-7. As such, a score of 6-7 indicates high risk, while sectors with a risk score of between 8-10 are considered of being at critical risk.

Based on the analysis, the following high-risk (6-7 scores) and vulnerable (4-5 scores) sectors were identified:

NACE code	Sector	Risk score
A	Agriculture, Forestry and Fishing	7
D	Electricity, Gas, Steam and Aid Conditioning Supply	7

³ See <https://nbg.gov.ge/en/page/climate-risk-radar>

⁴ Nomenclature of Economic Activities.

NACE code	Sector	Risk score
E	Water Supply; Sewerage, Waste Management and Remediation Activities	7
C	Manufacturing	6
F	Construction	6
H	Transportation and Storage	6
B	Mining and Quarrying	5
K	Financial and Insurance Activities	5
I	Accommodation and Food Service Activities	4

After identifying the sectors that are most vulnerable to climate-related risks, commercial banks' exposure to these high-risk sectors was evaluated. The risk radar indicates to what extent the Georgian financial system is exposed to a given vulnerable sector (see Figure B1.1). This method can be applied for both smaller as well as larger commercial banks and the financial sector as a whole. Based on the data about the sectoral distribution of corporate loans for commercial banks, the share of sectors with high climate risk in the entire loan portfolio was identified. This analysis was based on the data from 14 banks as of December 2021. The evaluation is based on the sectoral distribution of corporate loans and excludes consumer loans, due to their low vulnerability to climate risk. Based on the results, 32.9% of the total portfolio is issued to high-risk sectors. From which, 10.2% are loans to the energy sector and agriculture, which are sectors with the highest risk scores. Meanwhile, vulnerable sectors, which include real estate, financial institutions, hotels and restaurants, and manufacturing of basic metals, take up a 27.1% share of the total portfolio.

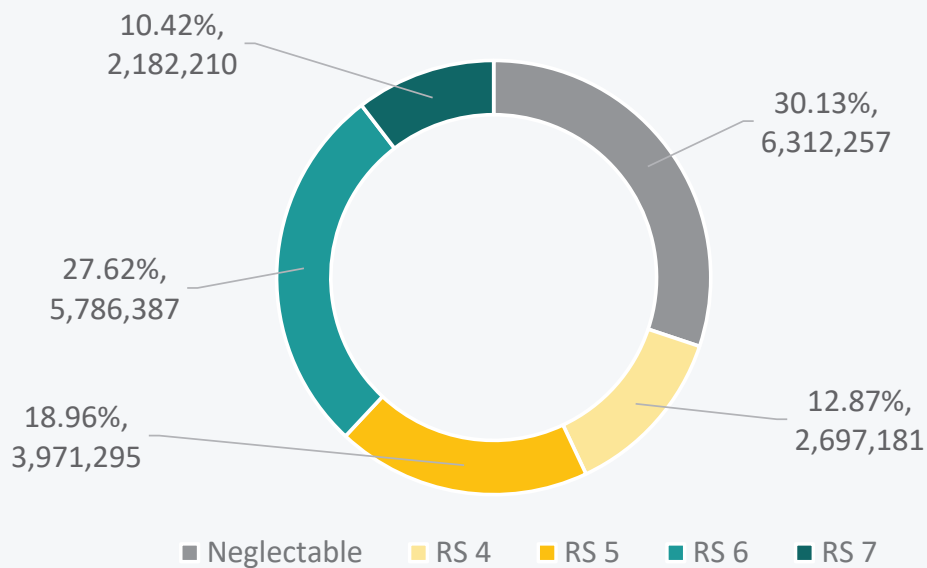
Figure B1.1: Heatmap for the total loan portfolio⁵

Risk Score	Activity	Share
7	Energy	6.06%
7	Agriculture	4.11%
7	Other	0.25%
6	Construction	14.63%
6	Food Products, Beverages & Tobacco Products	8.14%
6	Other	4.86%
5	Real Estate Activities	11.11%
5	Financial and Insurance Activities	3.79%
5	Other	4.06%
4	Accommodations and Food Service Activities	10.09%
4	Manufacture of Basic Metals	2.08%
4	Other	0.71%

A detailed description of the methodology, the results and their possible application are presented in the report, which is available on the NBG's [website](#).

⁵ The assessment is based on data provided by 14 banks. The figures are provided in thousands of GEL.

Diagram B1.1. Breakdown of corporate loans according to risk scores



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 all makes the country's financial system vulnerable to global economic and financial developments. With the gradual revival of the global economy in the second half of 2021, the Georgian economy also started recovering. However, the subsequent war between Russia and Ukraine exacerbated those financial stability risks that emerged during the pandemic. In particular, the rise in global inflation, the subsequent tightening of monetary policy, and the deepening of supply chain disruptions all worsened as a result of the war and significantly affected Georgia's economy and financial sector.

Despite the existing challenges, the recovery of the external sector is expected to increase Georgia's external demand and financial inflows, which will support economic growth and have a positive effect on both local employment and the stability of the exchange rate. However, a high level of dependence on financial inflows creates a risk of sudden outflows in the event of a shock – a scenario that was confirmed during the pandemic. This risk could materialize again in the face of rising interest rates in developed countries and the increase in sovereign risk premia in the region. Therefore, risks arising from the global macro-financial conditions remain significant; these include uncertainty about the duration of the war, a slower-than-expected global economic recovery, and potential rise in sovereign risk premia in developing countries

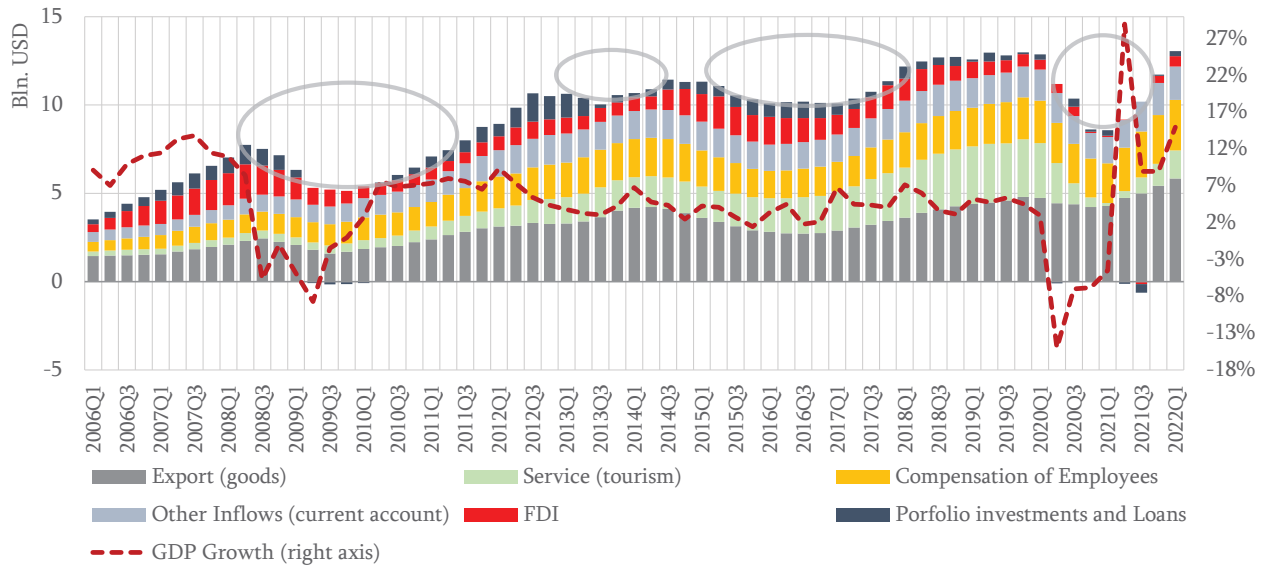
The Georgian economy started recovering in the second half of 2021. However, with the ongoing war between Ukraine and Russia, those external sector risks that emerged during the pandemic continue to be significant. In the spring of 2021, in parallel with the large-scale vaccination programs and an easing of pandemic-related restrictions, the global economy started a gradual recovery. With the revival of production and economic activity in trading partner countries, Georgia's external demand increased and continued to grow in 2022. Meanwhile, internal demand remained strong. As a result, from the second quarter of 2021, the Georgian economy started growing and, despite the Russia-Ukraine war, stayed at a high level. Growth was also supported by external inflows, particularly by money transfers and revenues from international travelers, which recovered as a result of the gradual easing of pandemic-related restrictions to reach pre-pandemic levels in the second quarter of 2022. However, it should be noted that in the first half of 2022, the number of international travelers was still well below the levels of 2019, with the growth mainly being driven by the base effect. With rising internal demand, imports of goods also increased. However, this was offset by an increase in exports of goods and other inflows, which supported the narrowing of the current account deficit. Nevertheless,

there is a risk that the high level of inflows will prove to be only temporary and, in the event of worsening external conditions, a sudden outflow would cause the current account deficit to deteriorate.

In the context of high global and regional uncertainty, Georgia's external sector risks can affect local financial stability through several major channels. The Russian invasion of Ukraine in February 2022 put a significant dent on the post-pandemic recovery, and, as a result, global economic growth was revised downwards. Global macro-financial risks – such as uncertainty about the duration of the war, slow economic recovery, and a higher-than-expected monetary policy tightening in developed countries – all increase Georgia's external vulnerability and create financial stability risks. These risks are transmitted to the financial system through several major channels. The tightening of financial conditions caused by increased risk premia in emerging economies increases the cost of lending in foreign currency from the supply side and decreases financial inflows, which is especially significant given the high level of dollarization in the country. This risk became evident during the COVID-19 pandemic, and could materialize again in the face of the ongoing war.

Another important transmission channel for

Figure II.1. Balance of Payment inflows in Georgia



Source: NBG, GeoStat

external financial stability risks is the global tightening of monetary policy, especially in developed countries. Monetary policy tightening causes local currency depreciation through financial outflows, which increases the price of imported goods and creates inflationary pressure. Given the high level of inflation and tight monetary policy stance globally, the risks stemming from this transmission channel are especially important. Moreover, the economic situations in trading partner countries should also be taken into account, as these can affect exports and money transfers. Economic difficulties in trading partner countries can have a negative effect on the external balance as well as on the local currency and could result in high exchange rate volatility.

The effect of global inflation on Georgia's imported inflation is also significant. Inflationary pressure, as caused by the pandemic-related disruption of supply chains, an imbalance of supply and demand on international markets, and a significant rise in the price of energy resources and raw materials, has increased significantly during the Russia-Ukraine war. As a result, global inflation reached its highest level in the past 13 years. Given Georgia's reliance on imported raw materials and goods, the above-mentioned factors put pressure on local prices and place significant strain on both companies and households. However, the appreciation of the GEL over the last year caused imported inflation to slow down. Overall, due to a high level of uncertainty in the external sector, financial stability risks and their transmission channels remain significant.

Despite the positive contribution of external

inflows to Georgia's economic growth, high dependence on balance sheet inflows could become a source of risk in the event of sudden capital outflows. With the recovery of the external sector from the second half of 2021, Georgia's external demand and inflows started to increase (see Diagram II.1). This was mainly driven by the rise in exports of goods, which surpassed pre-pandemic levels. Tourism revenues began to rise at the end of 2021 and reached the level of 2019 in the second quarter of 2022. Compensation of employees also remains at a high level, while foreign direct investments and portfolio investments and loans are still recovering following the decline in 2021. Overall, in the first quarter of 2022, balance sheet inflows reached the level of 2019, which supported economic growth and the narrowing of the current account deficit (see Diagram II.1). However, a high level of dependence on financial inflows creates a risk of sudden outflows in the event of a shock. The potential for this was confirmed during the pandemic, when the crisis caused by the recession led to a sudden decrease in balance sheet inflows and a worsening of the current account (see Diagram II.1). Given the existing external sector risks, a similar scenario could unfold again. Noteworthy risks include the prolongation of military activity in the region, a slower pace of recovery of the global economy, and the revision of the risk premia in developing countries. In the event of continued geopolitical instability and war in the region, there may be a significant decrease in incomes from exports of goods, remittances and tourism, which will lead to a deepening of the current account deficit. Moreover, high inflation and disruptions in supply chains could weaken external demand,

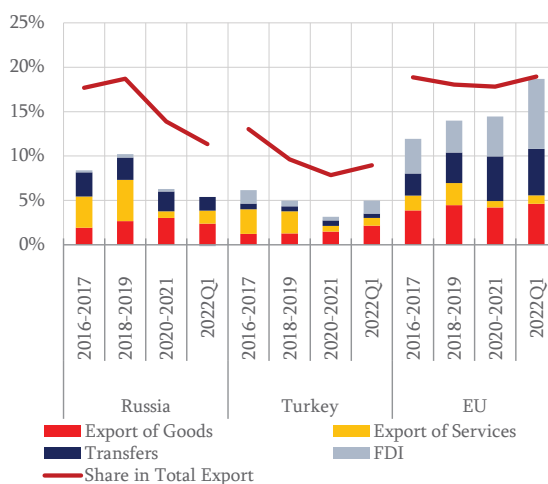
which would have a negative effect on the current account balance and the exchange rate. The rise of risk premia in the region and monetary policy tightening in developed countries will support additional financial outflows from developing countries, which will create pressure on the local economy and currency. It should, however, be noted that some of these risks could be partially offset by the diversification of inflows in terms of the countries of their origin.

The Georgian economy is significantly dependent on major markets, including the EU, Russia, and Turkey. Based on the first quarter of 2022, the total share of these countries in Georgia’s exports was 36 percent, which was 6 percent lower compared to the previous year. Compared to 2020-2021, the share of these countries in total inflows is also lower. Despite the fact that Russia’s share in total exports has been decreasing in the past couple of years, inflows remain at a high level (see Diagram II.2). Starting from April 2022, money transfers from Russia increased four times compared to the previous year and reached a record high. Moreover, with the recovery of tourism and increased regional migration, revenues from international travel from Russia increased significantly. Unlike other inflows, FDI from Russia decreased in the first quarter of 2022 and became negative. Considering the ongoing sanctions and Russia’s economic situation, it is expected that the FDI from Russia will remain at a low level for a sustained period of time. Due to the uncertainties surrounding the Russia-Ukraine war, it is unclear how long money transfers and tourism inflows will continue to grow. It should be noted that this trend could prove to be short-lived, with there being the potential for inflows to sharply decline after some time. Additionally, it is important to analyze the allocation of these money transfers and to determine their effect on Georgia’s economy.

As for inflows from the EU and Turkey, their shares in total GDP increased by 5 and 2 percent, respectively, in the first quarter of 2022 compared to the previous two years (see Diagram II.2). Growth is especially evident in FDI from these countries, while that from Russia became negative in the first quarter of the year. In this period, money transfers increased by 9.2 percent, with EU countries contributing significantly to this growth. Additionally, it should be noted that the number of visitors from the EU increased approximately four times. Overall, despite signs of diversification, Georgia’s dependence on inflows from these countries remains significant.

Although Georgia’s economy was on the road to recovery in 2021, with the growth of inflows continuing even after the onset of the war, risks remain significant due to the high level of uncer-

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



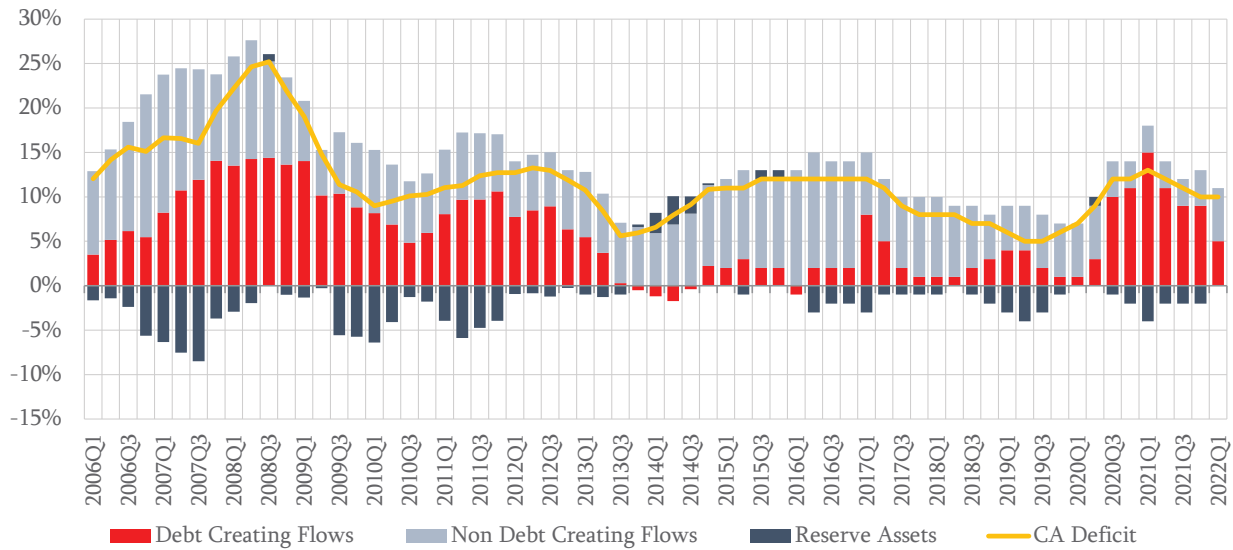
Source: NBG, Geostat

tainty in the region. The war has had a significant effect on Georgia’s major trading partners, which were still recovering from the pandemic. As a result, there is a risk of a potential decline in revenues from exports of goods, tourism and money inflows, which would have a negative effect on the country’s economy and, subsequently, on financial stability. Whether these risks are materialized will largely depend on the speed of the global economic recovery and the situation in Georgia’s trading partner countries.

Following the increase in foreign inflows and the stabilization of the national currency, the current account deficit started to decrease in 2022. As a result of the pandemic, the current account balance deteriorated significantly in 2020. However, with rising revenues from exports of goods and services, the current account deficit decreased by approximately 2.5 percentage points in 2021 compared to the corresponding period of the previous year. It should also be noted that strong internal demand increased imports, which hindered a further narrowing of the current account deficit.

Starting from the second quarter of 2021, there was a significant decrease in the share of debt instruments and reserves in financing the current account deficit, while the share of non-debt-creating inflows increased. Despite the fact that the share of debt-creating flows is still high compared to the pre-pandemic period (see Diagram II.3), these changes contribute to the decline of external vulnerability compared to 2020. The most important source of financing the account deficit was FDI, which was characterized by an increasing trend from the first quarter of 2021. In 2021, other investments also remained at a high level, which is mainly explained by the government taking on long-term debt. Portfolio inflows

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



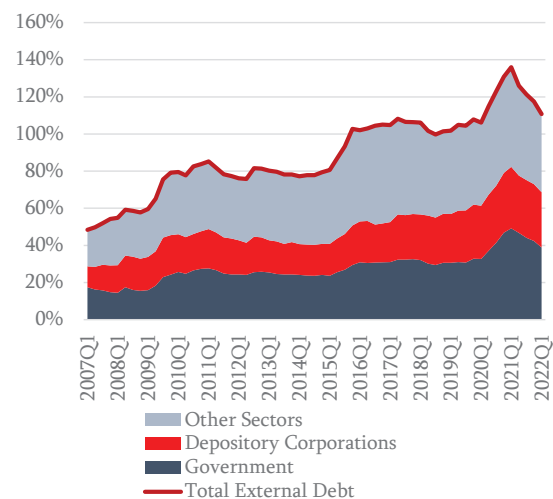
Source: NBG

declined at the beginning of the pandemic and remain at a low level. The pace of investment recovery will largely depend on global and regional developments.

The risk of a widening current account deficit remains in the event of a deterioration of external conditions. In particular, in the event of prolonged economic difficulties in partner countries, there is a potential risk of a decrease in the export of goods and services and lower international revenues, which will contribute to a widening of the current account deficit. A higher-than-expected tightening of monetary policy in developed countries and the growth of risk premia in the developing world will also contribute to financial outflows and, accordingly, to the worsening of the current account deficit. In addition, an increase in the sovereign risk premium could have a negative impact on business sentiment and investment and lead to lower-than-expected economic activity. This will also negatively affect the interest rate of foreign currency-denominated funds, increase the debt servicing costs of external debt, and create refinancing risk. However, the threat of the above-mentioned risks is reduced by the fact that the share of short-term debt in the total external debt of Georgia is small.

In 2021, the ratio of external debt to GDP and the debt burden both decreased significantly, which was mainly driven by an appreciation of the local currency and GDP growth. Despite the fact that the volume of external debt increased in 2021-2022, the appreciation of the GEL contributed to a decrease in GEL-denominated loans. As for the ratio of total external debt to GDP, its reduction was due to both the exchange rate effect and high GDP growth (see Diagram II.4). It should be

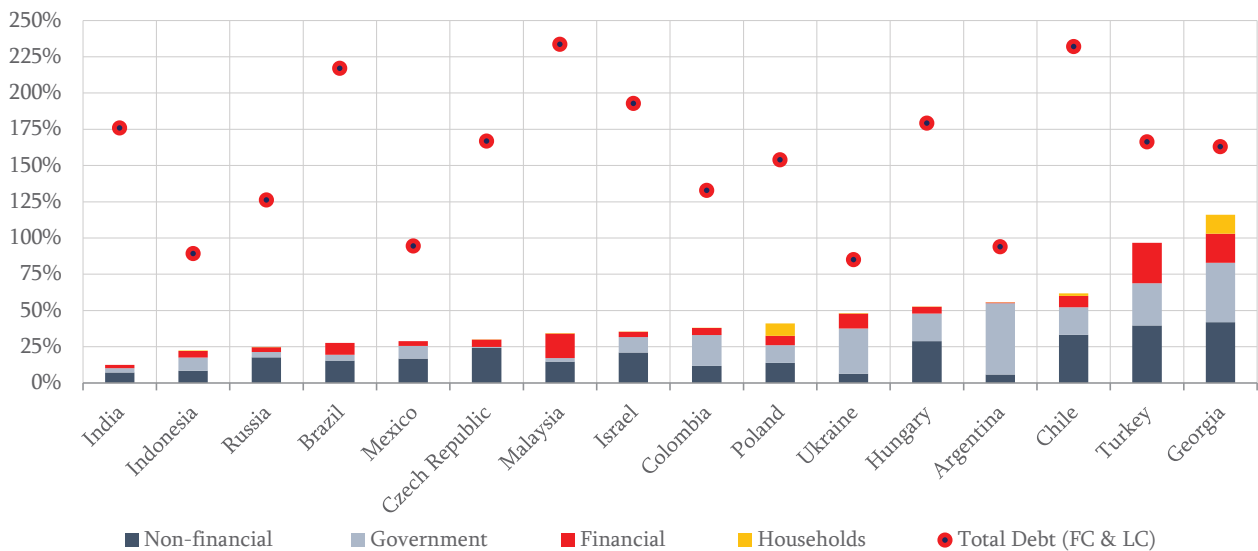
Figure II.4. External debt (% of GDP)



Source: NBG

noted that the share of government debt in total external debt remains at the sustainable level of about 47 percent. However, 90.9 percent of total external debt is denominated in foreign currency, making it vulnerable to exchange rate fluctuations. In the event of rapid capital outflows, there is a risk of depreciation of the local currency, which will increase the debt service burden and put pressure on international reserves, creating risks to debt sustainability. In addition, an increase in the risk premium will affect the interest rate of foreign currency-denominated funds and increase refinancing risk and the burden of foreign debt. However, the fact that the share of short-term debt in Georgia's total debt is low, amounting to only 20percent, reduces the risks of risk premium repricing and refinancing.

Figure II.5. Foreign currency debt by type of borrower: Cross-country comparison (% of GDP, as of 2022Q1)

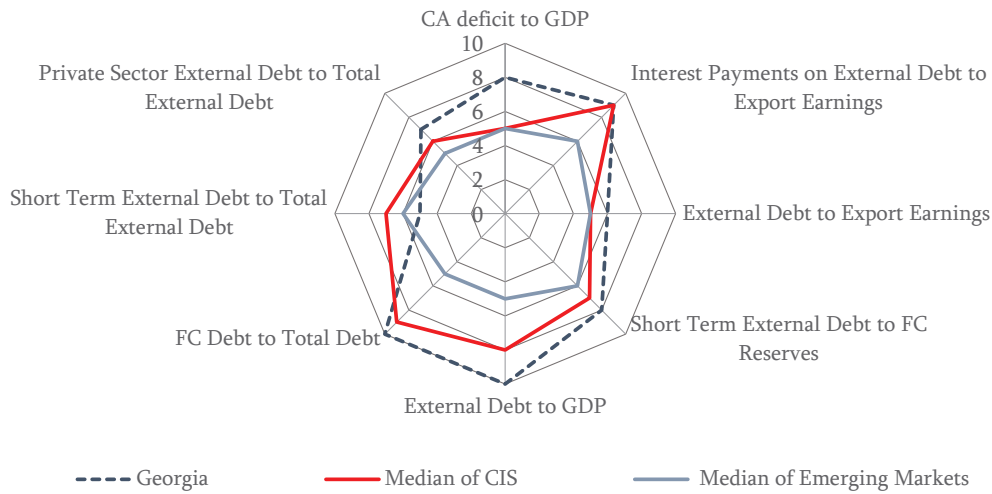


Source: NBS, Institution of International Finance; Statistical data of selected countries

In 2021, external debt increased significantly in Georgia, as well as in comparable countries. However, the share of foreign currency-denominated loans in Georgia is particularly high (see Diagram II.5). In the beginning of 2021, the ratio of global debt-to-GDP reached a peak. The large-scale fiscal measures adopted to mitigate the recession caused by the pandemic and a rise in interest rates in developed countries significantly increased refinancing risks and debt vulnerabilities. However, in the first quarter of 2022, the ratio of global debt-to-GDP decreased by about 15 percentage points. Although the total debt-to-GDP ratio has increased in some developing countries, its decline has been particularly pronounced in Europe. The rise in nominal GDP played an important role in this. However, in light of the expected global economic slowdown as a result of the Russia-Ukraine war, the total debt-to-GDP ratio may increase again. In addition, the tightening of monetary policy in response to inflationary pressure, as well as the increase of sovereign risk premia in developing countries will also contribute to the increase of the debt burden.

Despite the fact that Georgia’s total debt is not significantly high compared to other growing economies, and the fact that this ratio has even decreased compared to last year, the share of foreign currency debt for almost all types of borrowers, especially households, is particularly high (see Figure II.5). However, it should be noted that in the first quarter of 2022, the share of loans issued in foreign currency decreased, which will alleviate the burden caused by the depreciation of foreign currency-denominated loans. Moreover, a sizeable 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 2021)⁶



Source: NBS, IMF, WB

Georgia’s external vulnerability decreased more compared to the countries of the region and emerging market economies (EMEs). However, the majority of Georgia’s external vulnerability indicators are higher than the median value of comparable countries (see Figure II.6). In 2021, almost all indicators of Georgia’s external vulnerability improved, while in the region and in EMEs, the median of the majority of these variables worsened. The share of foreign currency debt in total loans is particularly noteworthy, which is characterized by a decreasing trend as a result of the active de-dollarization policy carried out in Georgia, while the median of comparable countries is rising. In particular, the increase in the share of short-term debt in total debt in the region and the ratio of short-term debt to reserves in EMEs indicate risks to debt sustainability in these countries.

Despite the fact that the post-pandemic recovery in Georgia has been more pronounced than in comparable countries, it is significant that the overall level of external vulnerability in Georgia is higher as compared to those economies (see Figure II.6). In Georgia, a large share of the foreign debt is denominated in foreign currency, which creates the risk of a rapid rise in debt servicing costs in the event of a sudden depreciation of the exchange rate. However, the favorable maturity structure of foreign debt indicates a low risk of refinancing in the event of a tightening of financial conditions.

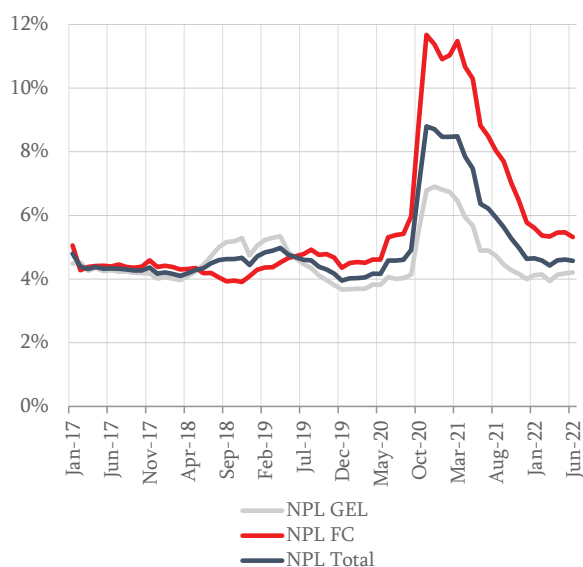
⁶ The rankings are based on global distributions of the corresponding indicators. A higher rank corresponds to higher vulnerabilities.

Household Sector Analysis

In 2022, household credit risk declined compared to the previous year, which reflects the effect of improved economic conditions. However, high consumer credit growth and the negative impact of inflation on households' real income are noteworthy, which might put more pressure on low-income households and those with high debt burdens. The increase of foreign interest rates against the backdrop of globally high inflation should also be considered as these will affect the household debt service burden. Despite the declining trend of credit dollarization, the currency risk of unhedged borrowers remains a significant challenge for the household sector. However, the NBG's policies on responsible lending and de-dollarization will hinder a further accumulation of such risks.

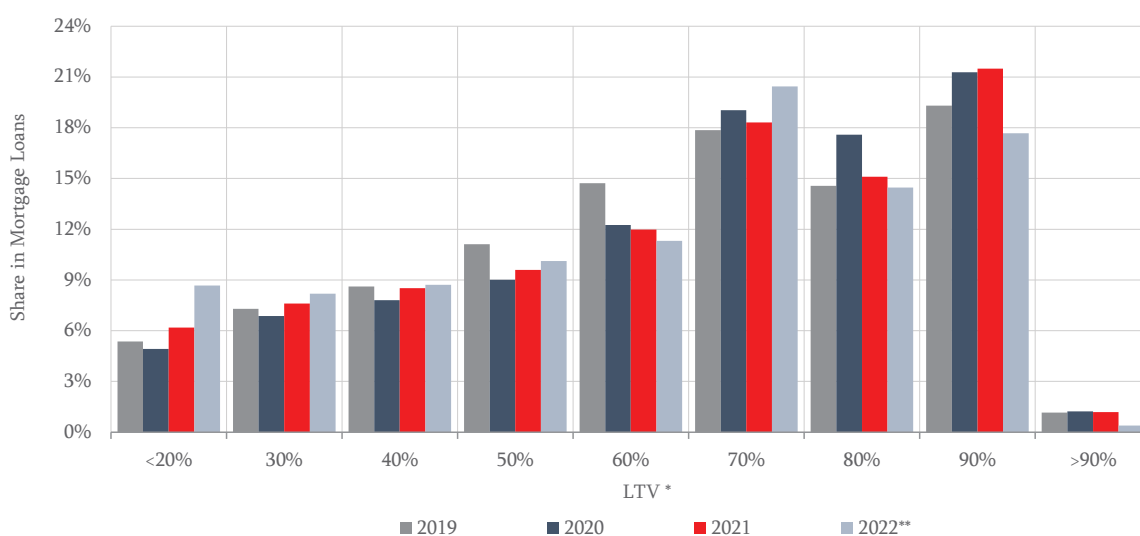
Household credit risk has declined compared to 2021, which reflects the effect of improved economic conditions. During the pandemic, households' worsened creditworthiness was reflected in a rise of non-performing loans. However, as expected, along with the economic recovery, the share of non-performing loans declined. Loan quality is also currently improved, especially in the case of foreign currency loans, which was driven by the appreciation of the GEL. The distribution of the payment-to-income ratio is healthy, which indicates that households will have sufficient buffers for periods of financial difficulties. In addition, the loan-to-value (LTV) ratio is above 80 percent for 17 percent of mortgage loans, which lowers the risk of credit losses for banks (see Figure II.8). Besides, real estate price growth is noticeable, which further reduces the credit risk of the loan portfolio.

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.

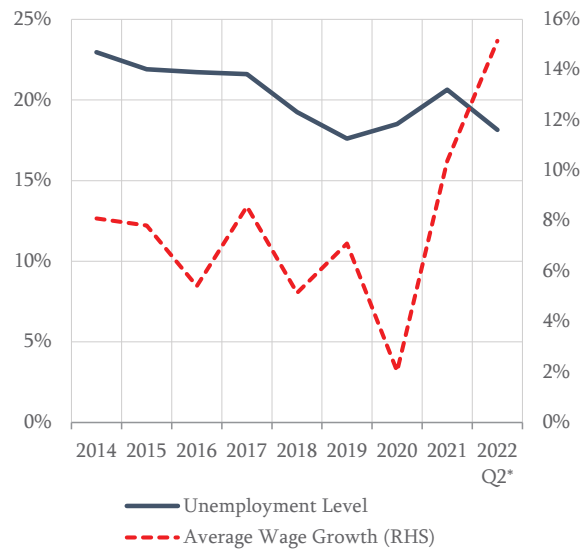
** The value in 2022 includes mortgage loans issued in the first and second quarters.

Source: NBG

However, the negative effect of inflation on households' real incomes should also be considered, which might put more pressure on households with low incomes or a high debt servicing burden. As of the second quarter of 2022, the unemployment level declined by 4 percentage points compared to the corresponding quarter of the previous year and amounted to 18.1 percent (see Figure II.9). The labor force participation rate is quite low, which is noteworthy when assessing households' economic conditions, and the current unemployment rate thus becomes worthy of more attention. In terms of wages, in the first quarter of 2022, the annual growth of wages was 15 percent. It should also be noted that annual inflation amounted to 12.8 percent in June 2022. Despite the improvement of unemployment and wage levels, high inflation increases the cost of living, decreases disposable income, and has negative effects on households' real incomes. In such a climate, the economic condition for low-income households worsens more than for middle- and high-income households. Besides, borrowers with a high debt burden might face financial distress, being left with less to cover day-to-day expenses after servicing their loans than they would have had in the case of lower inflation.

The increase in foreign currency interest rates, against the backdrop of globally increased inflation, is also noteworthy since it affects the household debt service burden. It is important to account for the interest rate risk of floating rate loans, considering the interest rate hikes of the US dollar and euro and the preconditions for a further increase. In order to form necessary buffers to respond to such a risk, the NBG

Figure II.9. Labor market indicators: unemployment level and growth of the average wage (YoY)

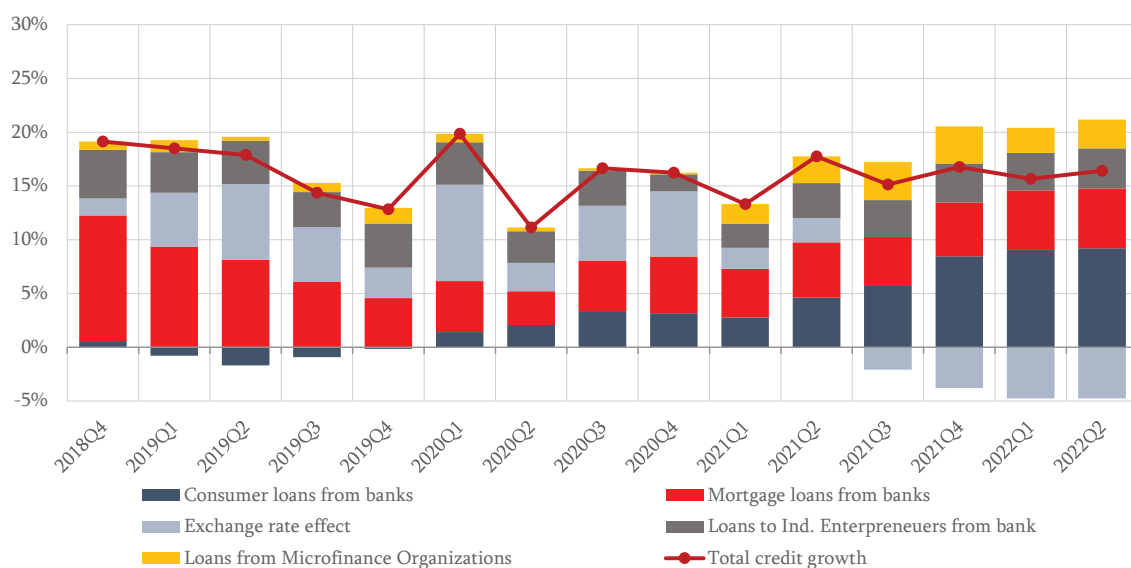


Source: GeoStat

required commercial banks to account for interest rate shocks even before the increase of interest rates in these currencies. According to the regulatory changes, when issuing loans with a variable interest rate, the payment-to-income (PTI) requirement should be satisfied after considering a 3-percentage-point interest rate shock (see Box 2). This will allow borrowers to continue servicing their debt without significant financial hardship in the event of a rise in interest rates.

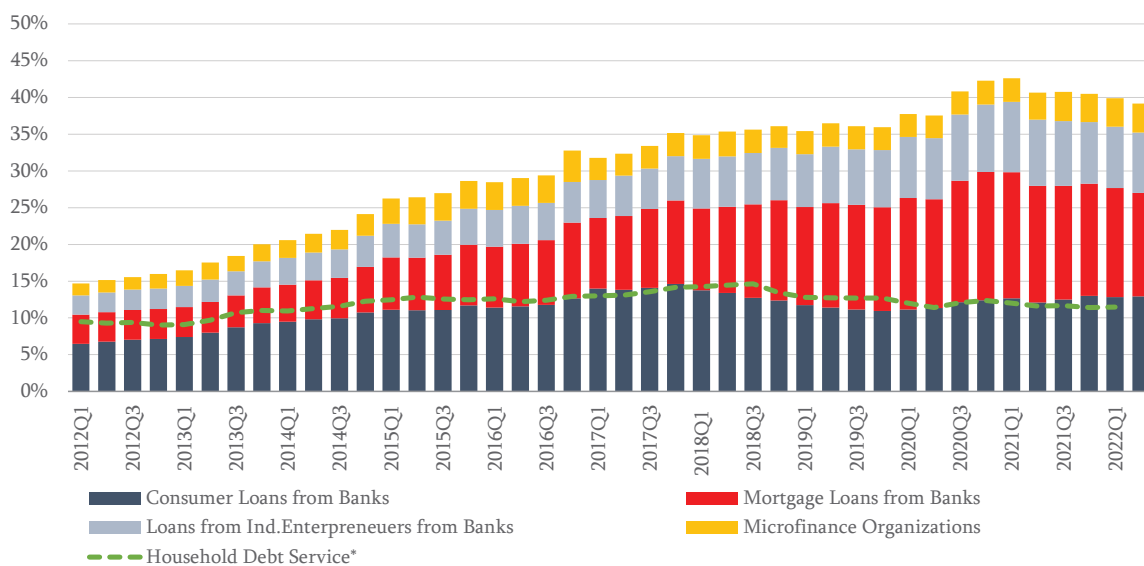
Household loans, consumer loans in particular, are still increasing at a high rate. The annual

Figure II.10. Decomposition of households' annual credit growth



Source: NBG

Figure II.11. Household debt to GDP ratio



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

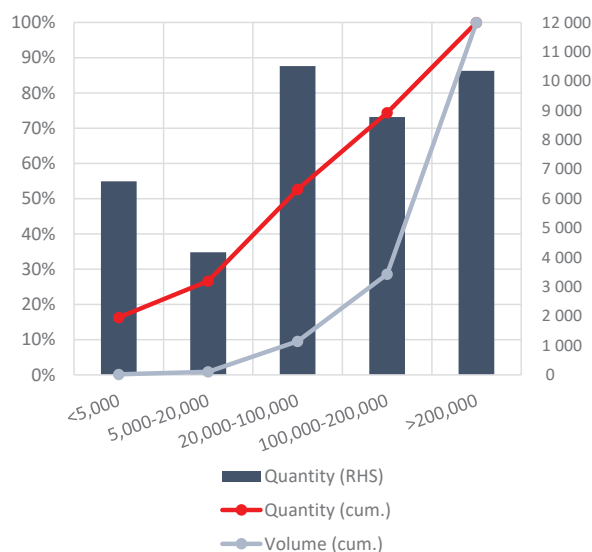
Source: NBG

growth rate of the credit portfolio amounted to 15.3 percent, excluding the exchange rate effect, in which consumer loans made a contribution of 9.2 percentage points. Over the last four quarters, the annual growth of consumer loans has significantly increased and exceeded the nominal wage growth. Consumer loan growth is expected to decelerate, which will also be supported by the tight monetary policy, the increase in the income limit for determining the PTI coefficient, and the decline of the maximum maturity for unsecured consumer loans. In the meantime, the NBG continues to monitor the growth rate and quality of consumer loans and, if necessary, will use all available instruments to prevent the accumulation of excessive risk.

At the same time, since the second half of 2021, the household debt burden has slightly decreased, which was a result of the GEL exchange rate appreciation and high economic growth. As of 2022, the household credit-to-GDP ratio amounted to 39.2 percent, which is 1.5 percentage points lower than the previous year (see Figure II.11). In this decline, the exchange rate appreciation effect was around 1 percentage point. It should be noted that the household debt service level has not significantly changed, since the increase in loan interest rates was compensated by the decline in the credit-to-GDP ratio.

Despite the declining dollarization of loans, the exchange rate risk of non-hedged borrowers remains an important challenge for the household sector. However, the larization (de-dollarization) policy implemented by the NBG prevents a further accumulation of such risks. In the second quarter of 2022, compared to the

Figure II.12. Distribution of the foreign currency loan portfolio, June 2022



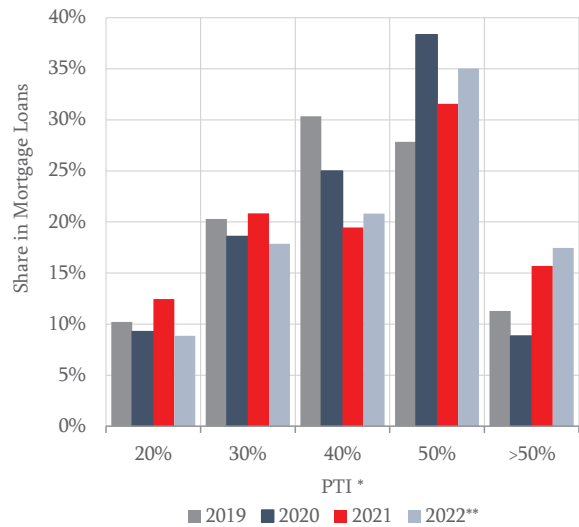
Source: NBG

same period of the previous year, household loan dollarization declined by 4.7 percentage points and amounted to 32.8 percent. However, this indicator still requires attention, because a significant share of foreign currency borrowers have income in the national currency. Such borrowers are vulnerable to exchange rate volatility, which raises additional creditworthiness risks. In response to these risks, the National Bank of Georgia has reduced the maximum maturity of foreign currency mortgage loans from 15 to 10 years. This limit is binding and is expected to reduce the issuance of mortgage loans in foreign currency. As a result of this change, the share of non-hedged

borrowers will fall, thus lowering their currency risk (see Box 2). It is also important to mention 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 only left with small debts. Currently, there are 41,000 active borrowers (or groups of borrowers) with foreign currency loans in the banking system portfolio, amounting to GEL 6.9 billion. For purposes of comparison, there were 140,000 such borrowers in the end of 2016.

Recent events have indicated that the adoption of the responsible lending regulation was timely. Since 2020, the global economy has faced major challenges, including the pandemic and the Russia-Ukraine war, which have had a significant influence on households' economic conditions. The role of NBG's policy was noteworthy during these crises. Had it not been for the implementation of the responsible lending regulation these events would have worsened households' economic conditions even further and this would have been translated into a higher share of non-performing loans (see Annual Report 2021, Box 4). The healthy distributions of the PTI and LTV ratios are also the result of the NBG's correct and timely policies. According to the data available in the first half of 2022, only 17 percent borrowers have a PTI of above 50 percent.

Figure II.13. Distribution of the PTI ratio



* Distribution of the PTI ratio is constructed based on the quantity of loans issued during the year

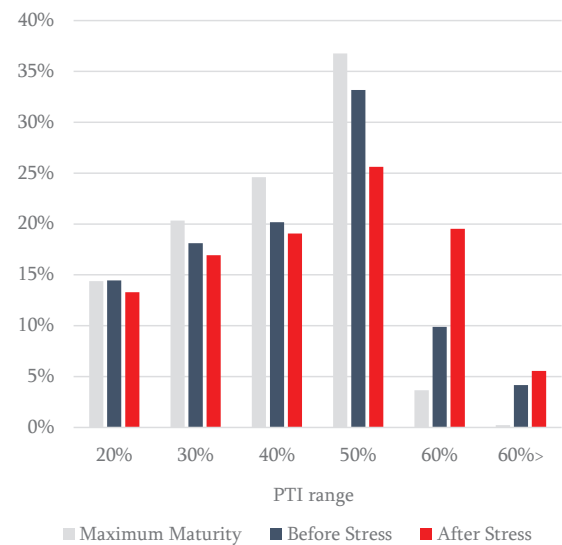
** The value in 2022 includes mortgage loans issued in the first and second quarters.

Source: NBG

Sensitivity Analysis of the Household Sector

As a result of the macroprudential policies implemented by the NBG in previous years, households' financial resilience against macroeconomic shocks has improved. An analysis of household sector vulnerabilities shows that, in the case of the severe risk scenario, which assumes an exchange rate depreciation of 20 percent and interest rates following the path of the pessimistic scenario (see the Macro-Financial Risk Scenarios section of this report), low-income borrowers are particularly vulnerable. In the event of such an economic shock, they are left with less buffers to overcome financial difficulties. Although high-income borrowers are characterized by a healthier PTI ratio distribution, under the stressed scenario their buffers also decrease significantly. In particular, the share of households whose PTI is above 50 percent sharply increases. Sensitivity analysis confirms that households remain vulnerable against exchange rate depreciation. Meanwhile, sensitivity against interest rates has increased compared to the previous year; however, since monetary policy is already tight, a material increase of interest rates in domestic currency is not expected. Interest rate risk is more noteworthy for foreign currency loans, taking into account the global hike of inflation and rising interest rates on both US dollars and euros.

Figure II.14. Sensitivity of household PTI to macroeconomic stress



Source: NBG

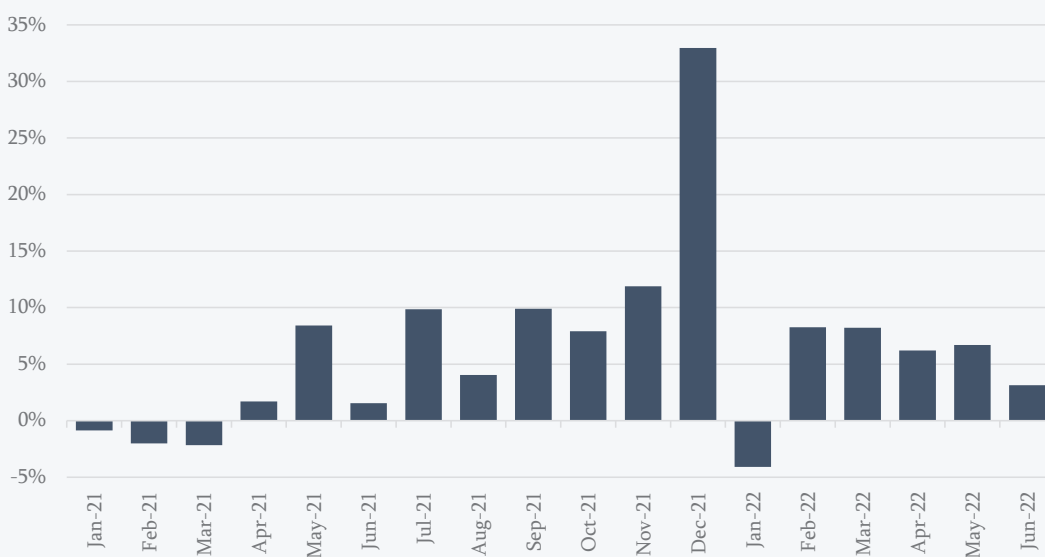
Box 2: Impact assessment of changes in the responsible lending regulation

In order to increase borrowers' creditworthiness, the National Bank of Georgia modified certain requirements in its responsible lending regulation. In particular, income limits for the PTI ratio were changed. Previously, these were based on the statistical data available as of 2017, but the set of nominal economic indicators increased significantly after that date. To compensate for these changes, according to the Financial Stability Committee's decision, from April 2022 a 25 percent PTI requirement was set for borrowers with a monthly income of below GEL 1,500, instead of the previous GEL 1,000. Following the implementation of this change, consumer loans issued to borrowers with a monthly income of between GEL 1,000-1,500 were halved in the second quarter of 2022 as compared to the corresponding quarter of 2021. If we assume that the growth rate of loans issued to borrowers in the GEL 1,000-1,500 income range should have been equal to the growth of credit issued to borrowers with an income of above GEL 1,500, this change would result in a 7.1 percent decrease of consumer credit growth in one year, which will be translated into a 1.3 percent decline in annual credit growth.

In addition, in order to decrease credit risk and promote de-dollarization, the National Bank of Georgia decreased the maximum maturity of foreign currency mortgage loans from 15 to 10 years. In the second half of 2021, along with the tightened monetary policy and the appreciated national currency, the growth rate of foreign currency loans increased significantly (see Figure B2.1.). In response to these dynamics, on the decision of the Financial Stability Committee, the maximum maturity of foreign currency mortgage loans was decreased from 15 to 10 years. As a result of this change, the annualized monthly growth rate of foreign currency mortgage loans decreased by 4 percentage points. Considering the interest rate differential between GEL and foreign currency mortgage loans, it is expected that half of those borrowers who were not able to take a foreign currency loan, substituted it with a GEL loan (see Figure B2.2.). Therefore, the total effect of this change would be a decline in the mortgage growth rate by 1 percentage point, which will result in a 0.2 percentage point decline in the annual credit growth.

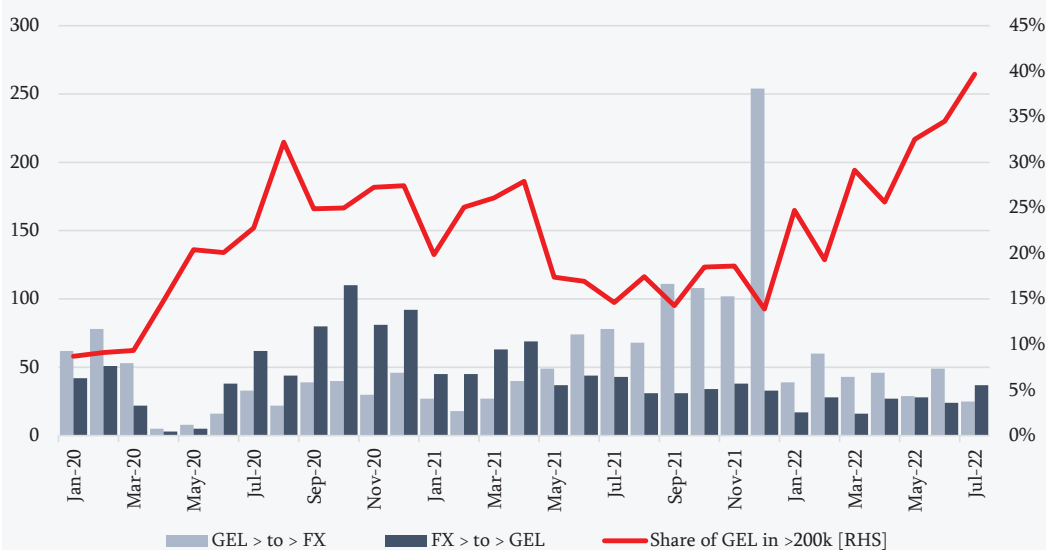
In addition, in 2022 there was a modification made to the issuance of floating interest rate loans. When assessing borrowers' creditworthiness before issuing a floating rate loan, commercial banks should account for an additional 3-percentage-point interest rate shock, in addition to the current PTI requirement. As

Figure B2.1. Growth of foreign currency mortgage loans (monthly, excluding the exchange rate effect, seasonally adjusted, and annualized)



Source: NBG.

Figure B2.2. The number of mortgage loans refinanced from GEL to FX and from FX to GEL and the larization of mortgage loans above GEL 200,000

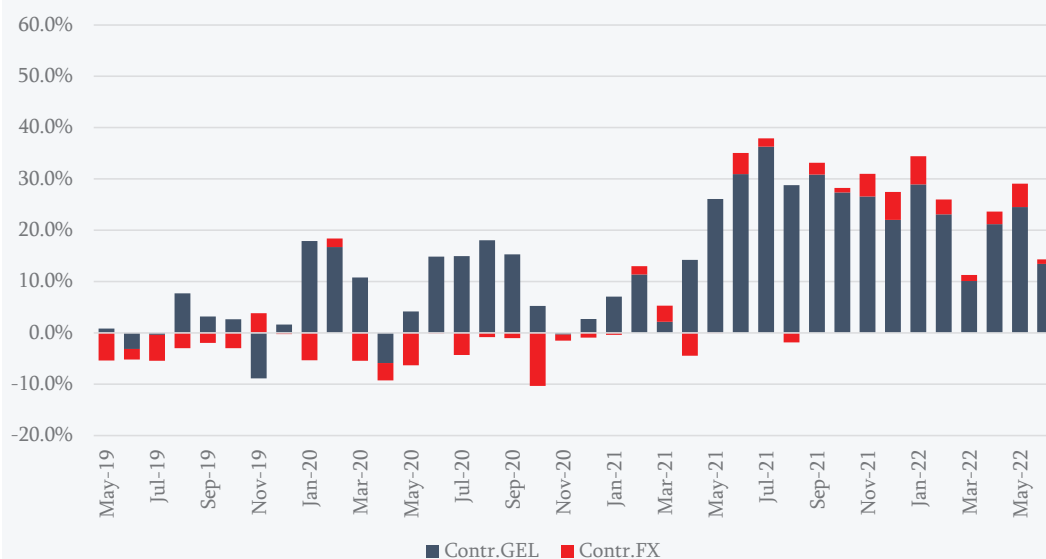


Source: NBG.

expected, this regulation did not have a significant impact on credit activity, since the PTI distribution was healthy and the majority of borrowers had sufficient buffers to overcome the stress. Therefore, in the second quarter of 2022, the weighted average PTI coefficient only slightly decreased compared to both the preceding quarter and the corresponding quarter of the previous year.

Furthermore, in order to avoid additional upward pressure on inflation, the maximum maturity for consumer loans was reduced from four to three years. Despite the tightened monetary policy, credit activity was maintained at high levels throughout the year, which was driven by the excessive growth of consumer and foreign currency lending (see Figure B2.3.). To avoid putting additional pressure on inflation, in addition to the tightened monetary policy, the maximum maturity of consumer credit was reduced from four to three years, with the aim of cooling down consumer lending. It is expected that during the next year the growth of unsecured consumer credit will be 8 percentage points lower, while total credit growth will be 1 percentage point lower.

Figure B2.3. Growth of consumer loans (monthly, excluding the exchange rate effect, seasonally adjusted, and annualized)



Source: NBG.

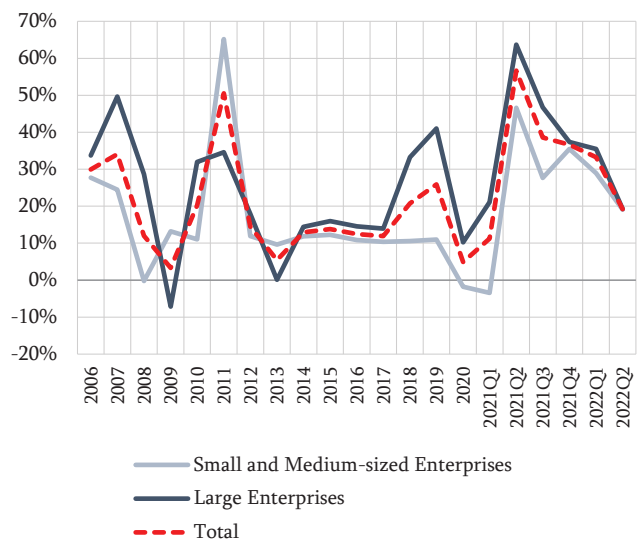
Non-financial Companies

In the first half of 2022, revenues of non-financial companies tended to improve as the challenges caused by the pandemic were gradually overcome. The rate of recovery was high in both small- and medium-sized companies, as well as in large companies. However, an increase in the debt burden has already become noticeable in those companies that are under the direct influence of the conditions created by the Russia-Ukraine war. This creates a threat to financial stability for the corporate sector. The vulnerability of companies to existing risks is also exacerbated by their significant dependence on external sources of financing, the high dollarization of liabilities and a significant share of short-term debt. Despite the increase in the credit risk of companies during the pandemic, they continued to have access to financial resources, which was largely due to the support measures enacted by the National Bank of Georgia and the Government of Georgia, as well as the grace periods for loans offered by commercial banks. Consequently, the share of bank loans as a source of funding for companies has increased. Under these conditions, the challenge for banking and financial institutions is their ability to identify viable companies – those whose financial difficulties are only caused by temporary disruptions in the global supply – and to ensure that such companies’ demands for financial resources are met. As a result, these companies will contribute to economic recovery and the growth of employment, while helping to maintain financial sustainability in the medium term.

Despite the increased uncertainty amid the pandemic and the Russia-Ukraine war, non-financial companies remain resilient. However, the financial impact of supply chain disruptions varies per company. With the lifting of pandemic-related restrictions in the first half of 2022, consumer sentiment improved and demand increased. The increase in demand is observed in both local and external markets. Foreign tourist inflows increased significantly, which was reflected in the recovery of high-contact sectors. In the current year, the turnover of non-financial companies has maintained a high growth trend, observed in both large- as well as in small- and medium-sized enterprises (see Figure II.15). Moreover, some companies’ costs have decreased due to the removal of pandemic-related safety regulations; however, as a result of a significant increase in the prices of fuel and intermediate goods in the background of the war, uncertainty has also increased regarding the maintenance of the high turnover growth that companies had recorded at the beginning of the year.

The dynamics of the recovery of companies’ activities varies across sectors (see Figure II.16). In the first half of the current year, the volume of income exceeded pre-pandemic levels in all sectors, except hospitality. Similarly, with the exception of the hospitality sector, a growth in income was revealed in each of the other sectors mentioned in Figure II.16. The discretion of consumers regarding the risk of a further COVID-19 outbreak in the country has become a hindrance to the recovery of the hospitality sector. An improvement of market sentiment will lead to the recovery of companies’ turnovers in the sector, which will subsequently con-

Figure II.15. Annual growth in turnover by company size

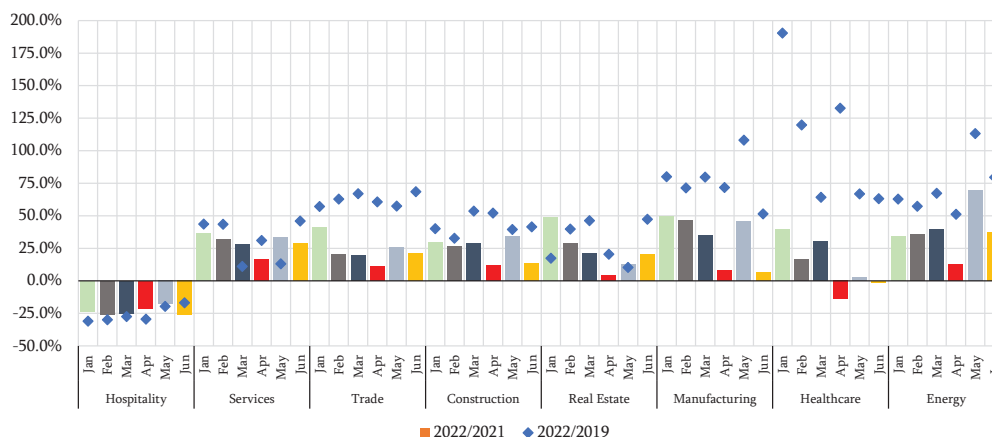


Source: GeoStat

tribute to the growth of investment activity and employment. As a result, the existing positive dynamics will be transferred to the household sector and will accelerate the process of economic recovery. It should further be noted that during the initial period of the Russia-Ukraine war, exports of wines and spirits decreased, although during the last few months a recovery trend can be observed (see Box 3).

Compared to the pandemic period, in the first half of 2022, the share of non-performing loans in non-financial companies decreased dramatically, including in those sectors with high vul-

Figure II.16. Change in turnover in selected industries

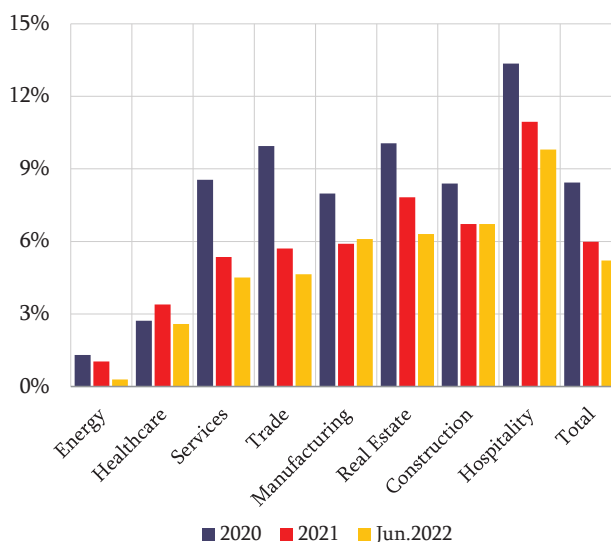


Source: Revenue Service of Georgia

nerability to the pandemic (see Figure II.17). In the pandemic period, the liquidity provision measures implemented by the NBG, the loan repayment moratoria offered by commercial banks, and the targeted sector support programs executed by the Government of Georgia all served to ensure that companies had continuous access to financial resources. Against the backdrop of the Russia-Ukraine war, the first half of 2022 saw an increase in non-performing loans only in the manufacturing sector. This could mean that the increased costs for companies as related to the impact of rising prices of oil products and intermediate materials can potentially affect the servicing of loans. This, in turn, leads to an increase in credit risk in the aforementioned sectors.

During the pandemic, the debt burden of non-financial companies increased significantly, but then started to decrease from the second quarter of 2021 and fell below the long-term trend. Since the beginning of 2021, the growth rate of the total debt of companies increased, which happened mainly at the expense of the growth of debt taken on the local market (see Figure II.18). Nonetheless, the growth of companies' debt was lower than the growth of nominal GDP, which led to a decrease in the debt burden. Thus, the ratio of total corporate debt to nominal GDP, which is a common measure of debt burden, has fallen below the long-term trend (see Figure II.19). During 2021, the reduction of the debt burden was largely due to the high growth of nominal GDP and the strengthening of the GEL (see Figure II.20). However, it should be noted that the share of GDP growth in reducing the debt burden was largely a result of the base effect. In the second half of 2022, the maintenance of high GDP growth and a further strengthening of the GEL provided additional relief of the debt burden of companies; as a result, the ratio of companies'

Figure II.17. Share of non-performing loans in total bank loans by selected industries (end of period)

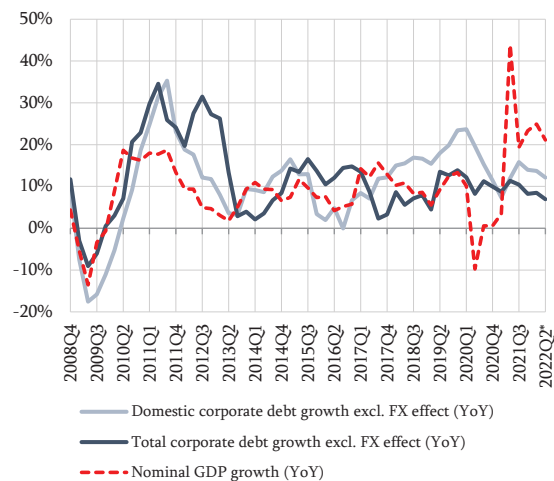


Source: NBG

total debt to GDP continues to fall compared to the long-term trend. However, taking into account the fact that high uncertainty remains in the country and that global financial conditions are expected to tighten, in the case of weaker-than-expected economic growth and an additional depreciation of the GEL in the following periods, the debt burden of companies may develop a growth pattern and approach the long-term trend. It should be noted that the significant impact of the exchange rate on the debt burden is caused by the high dollarization of companies' debts and illustrates the risks associated with foreign currency-denominated debt among non-hedged corporate borrowers. Due to such uncertainty, the financial sustainability risks related to the debt burden of companies remain considerable.

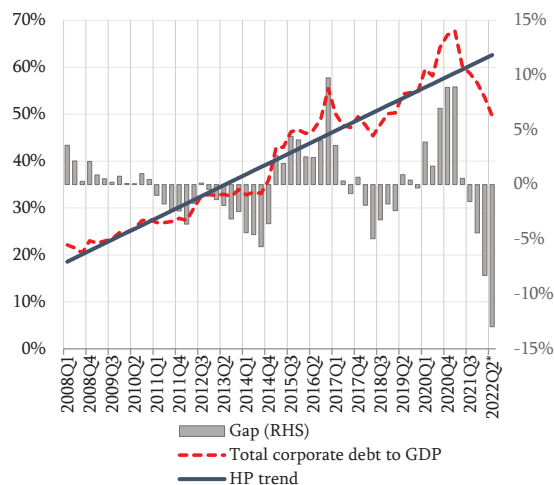
Despite the reduction of the debt burden, the dependence of companies on external financing sources and the significant share of short-term debt are both particularly apparent. As a result of improved access to global financial markets in 2021, the financing of companies from foreign sources increased in the first half of the year, although a decrease was observed by the end of the year (see Figure II.21). At the same time, the share of bank loans in the financing of companies increased significantly. Nevertheless, the financing raised by companies from foreign sources remains at a high level, which is accompanied by increased vulnerability to the expected tightening of global financial conditions. Against the background of the protracted period of increased inflation in the world since the COVID-19 pandemic crisis and the additional inflationary pressure arising from the Russia-Ukraine war, risks of tightened financial conditions and capital outflows are apparent for developing and emerging economies. The risks stem from the uneven recovery of the global economy and the start of monetary policy normalization by developed countries.⁷ Although a proportion of foreign financing relates to intercompany loans, which tend to be offered at favorable terms, in the event of a tightening of financial conditions, companies' access to foreign funding will considerably deteriorate. Considering the significant share of short-term debt in the balance sheets of companies, this creates debt rollover risks. It should also be noted that the share of short-term debt in corporate liabilities is relatively high, in both large- as well as in small- and medium-sized companies (see Figure II.22). In 2020, a significant increase in this share was observed in small- and medium-sized companies. At the same time, the high dependence of large-sized companies on foreign funding sources is noteworthy. The risk of companies' debt rollovers is particularly noteworthy in periods of high uncertainty, because, in the face of increased intermediate costs, uninterrupted access to financial resources becomes essential for the functioning of viable companies.

Figure II.18. Annual growth rates of nominal GDP and corporate debt



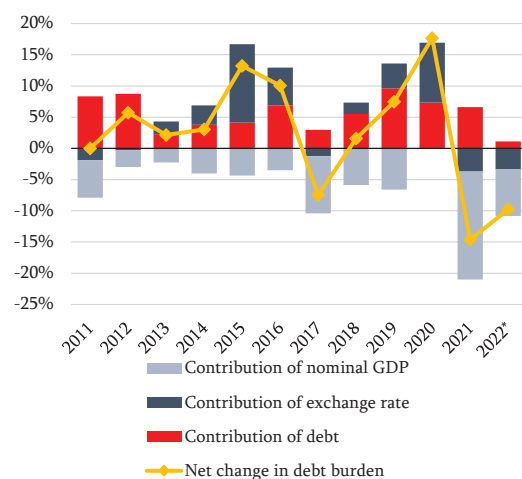
Source: NBG, GeoStat

Figure II.19. Total corporate debt to GDP ratio and its long-term trend⁸



Source: NBG staff estimates

Figure II.20. Decomposition of the annual change in the total company debt to GDP ratio (percent of nominal GDP)

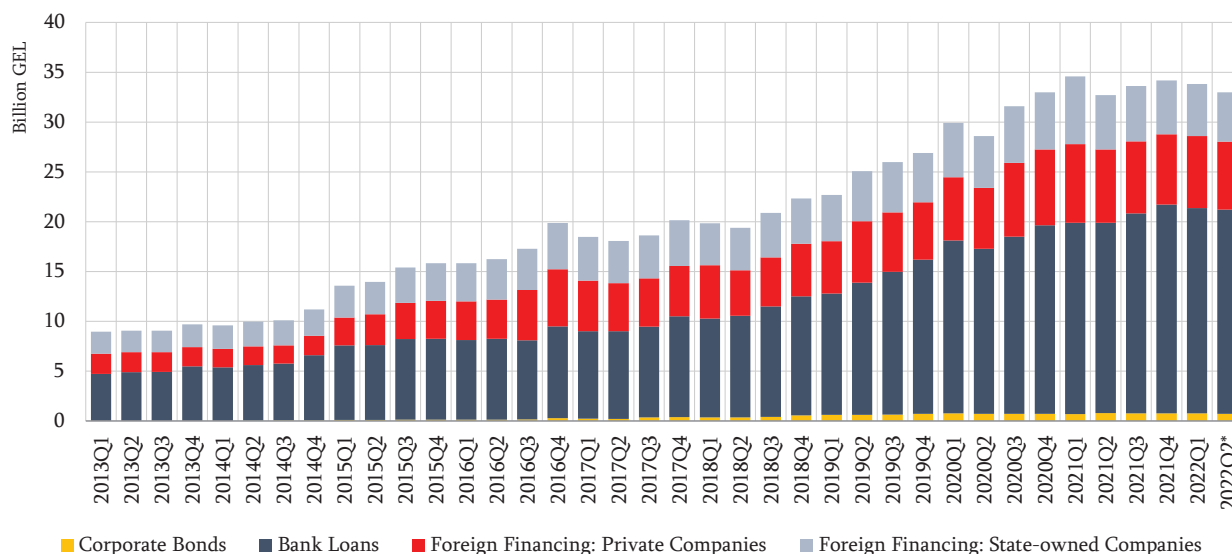


Source: NBG; GeoStat

7 See the Global Financial Stability Report, April 2022 <https://www.imf.org/en/Publications/GFSR/Issues/2022/04/19/global-financial-stability-report-april-2022> .

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.

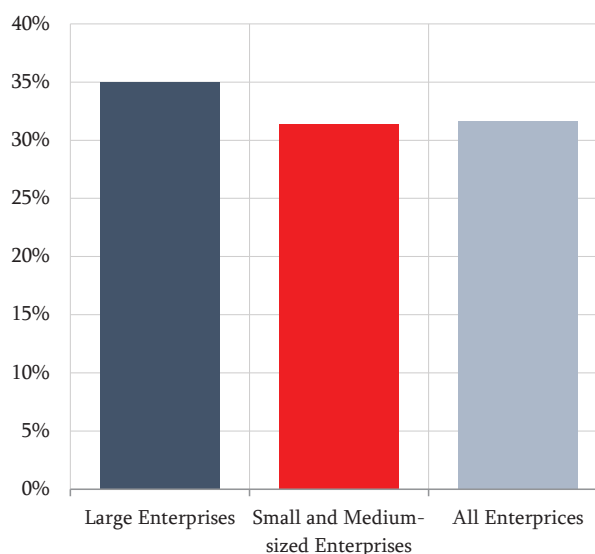
Figure II.21. Debt structure of non-financial companies



Source: NBG

The burden for companies servicing their loans issued in foreign currency was eased as a result of the strengthening of the GEL exchange rate. However, the tightening of global financial conditions increases solvency risks. The share of foreign currency-denominated debt remains high in companies' funding. In the first half of 2022, compared to the same period of the previous year, the dollarization of the domestic debt of companies decreased by 3 percentage points, although it remains at a high level of approximately 66 percent. The dollarization of the total debt of companies, including foreign debt, is 78 percent, which is 2 percentage points less than the previous year. Therefore, under conditions where there is improper hedging of this risk, the debt burden of companies is characterized by high sensitivity to exchange rate fluctuations. Against the background of the depreciation of the GEL during the pandemic, the costs of servicing foreign currency-denominated debt increased significantly; as a result, in conjunction with reduced incomes, a certain part of companies had to restructure their debts. The share of restructured loans remained at a high level for a long time and only started to decrease from the beginning of 2022, in which the strengthening of the GEL played a significant role. It should be noted that during the economic crisis accompanying the pandemic, debt restructuring even increased for companies that were borrowing in GEL. However, the significantly higher rate of restructuring recorded in foreign currency compared to GEL alongside the relatively large fluctuations of its share indicate a high vulnerability to exchange rate risk (see Figure II.23).

Figure II.22. Median share of short-term debt in total debt by company size (averaged over 2018-2020)*



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

Source: SARAS,⁹ authors' calculations

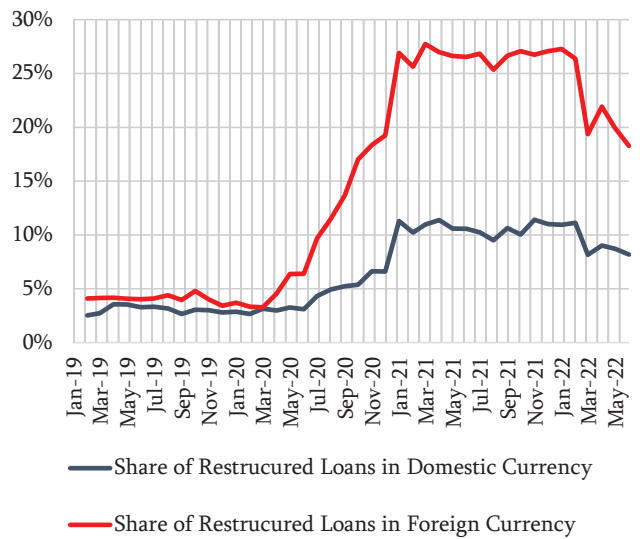
9 Service for Accounting, Reporting and Auditing Supervision of Georgia.

The incomes of a significant part of companies recovered, at least to some extent, following the recovery of the economy. However, uncertainty has subsequently increased because of the Russia-Ukraine war. Support measures that were put in place during the pandemic helped to maintain favorable financing conditions and reduce debt servicing and rollover risks. Due to the renewal of loan services by companies, the share of loans that were extended at least once by the grace period has significantly decreased compared to the previous year (see Figure II.24). These improvements were especially evident in small- and medium-sized companies. Meanwhile, those companies that continue to benefit from the loan moratoria are thoroughly scrutinized by commercial banks before such relief is granted. A decrease was observed also in such loans. In overall terms, companies affected by the pandemic are gradually abandoning the moratoria. Additionally, due to the new circumstances related to the ongoing war, those companies whose trade relations largely depend on the Russian and Ukrainian markets have gained particular prominence. Support from commercial banks will be important in order to maintain the viability of such companies and to ensure the functioning of the relevant sectors, at least until the geopolitical situation stabilizes and the impact of temporary factors recede. At the same time, great importance should be given to the assessment and analysis of borrowers' conditions. In particular, banks should be vigilant when financing those companies that are unlikely to survive the current challenges as there are risks of creating so-called zombie companies.¹⁰ In general, the risk of such companies being formed increases during crisis periods. These companies prevent new prospective businesses from accessing loanable funds, and therefore risk interrupting the economic recovery. Thorough scrutiny from commercial banks before deciding to extend loan repayment moratoria allows them to identify and exclude possible zombie companies, thereby facilitating an efficient allocation of loanable funds.

A decrease in the issuance of corporate bonds has been observed since the beginning of the previous year, while the share of bonds denominated in foreign currency remains high. During the pandemic, companies' access to market sources of funding deteriorated. The issuance of corporate bonds on the domestic debt securities market, which has been grow-

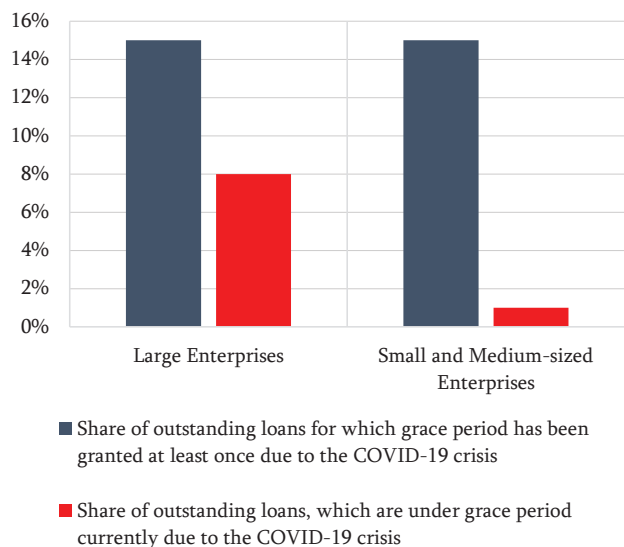
¹⁰ Zombie companies are loss-making commercial entities with unsustainable business models that manage to survive due to the receipt of various reliefs and state support programs. The risks of creating zombie.

Figure II.23. Share of restructured loans in total company loans issued by banks by currency



Source: NBG

Figure II.24. Share of company loans under repayment moratoria (as of 30 June 2022)



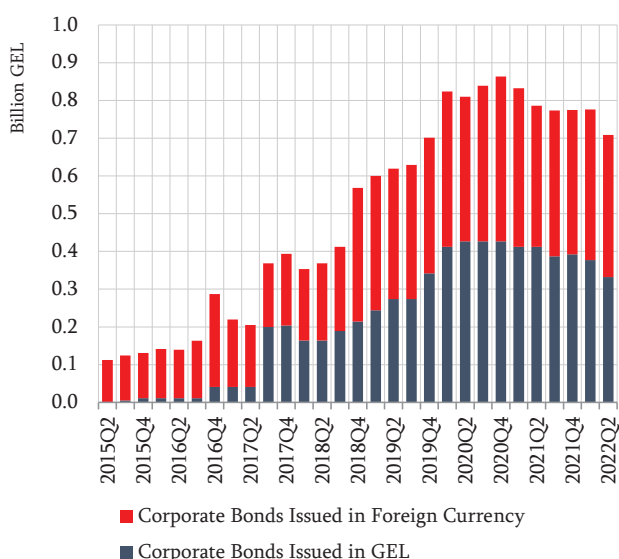
Source: NBG

ing markedly in recent years, has stabilized (see Figure II.25). This trend echoes the current situation in global capital markets and reflects investors' increased sensitivity to risks resulting from high uncertainty, especially towards developing and emerging market economies. In addition, a recent increase in the issuance of bonds denominated in foreign currency is apparent, along with a decreasing trend in bonds denominated in GEL. This highlights the significance of risks arising from exchange rate fluctuations. However, the role of bank lending as a source of corporate funding has increased to meet companies' demand for financial resources. The local banking system was able to

successfully cope with pandemic-induced risks and continues to provide lending to companies. The average maturity of corporate loans issued by banks has not changed significantly, while interest rates have stabilized after an initial increase, although an upward trend was evident in the first half of 2022 (see Figure II.26). In addition, an increase in interest rates on loans denominated in foreign currency is expected in the wake of the tightening of global financial conditions. Furthermore, in the wake of the Russia-Ukraine war, there was an increase in the share of rejected loan applications, especially for small- and medium-sized firms (see Figure II.27). As the credit conditions survey¹¹

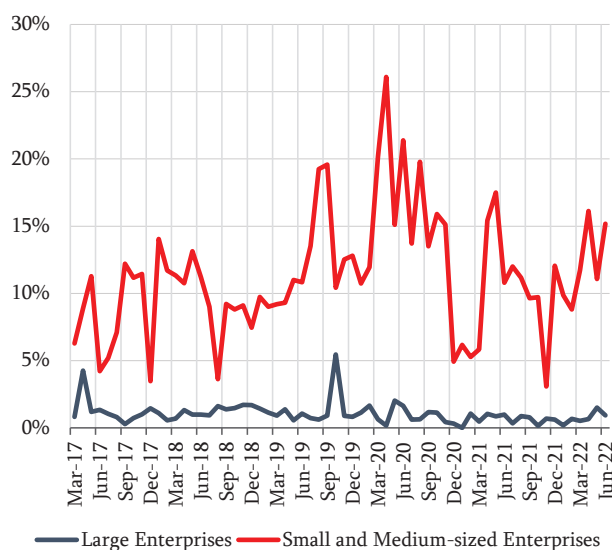
indicates, the tightening of banks' credit conditions for corporate borrowers in the first half of 2022 was predominantly driven by economic trends, and changes in regulatory policies and the cost of funds. In this environment, the main challenge for banks is to be able to identify those companies that are financially viable – insofar as their financial difficulties are only caused by temporary disruptions in global supply – and to ensure that such companies' demand for financial resources can be met. As a result, these companies will contribute to the economic recovery and growth of employment without accumulating medium-term vulnerabilities to their financial resilience.

Figure II.25 Outstanding corporate bonds issued in the domestic market (public offering)



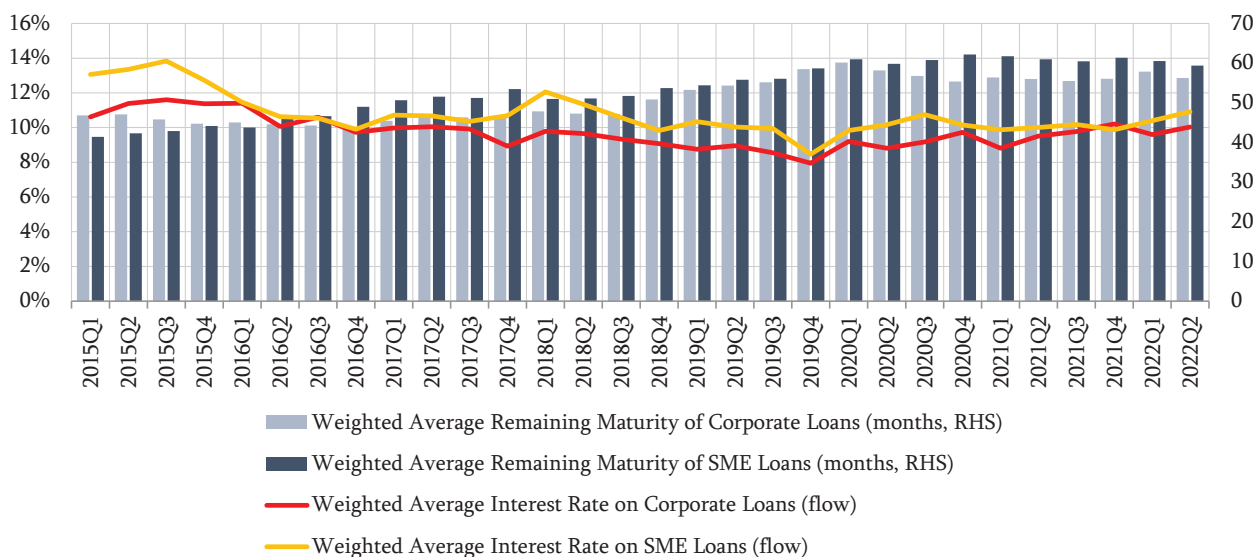
Source: NBG

Figure II.27 Share of rejected company loan applications



Source: NBG

Figure II.26. Weighted average interest rates and remaining maturity of company loans



Source: NBG

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

Box 3. The impact of the Russia-Ukraine war on wine and spirits exporters and their credit portfolios

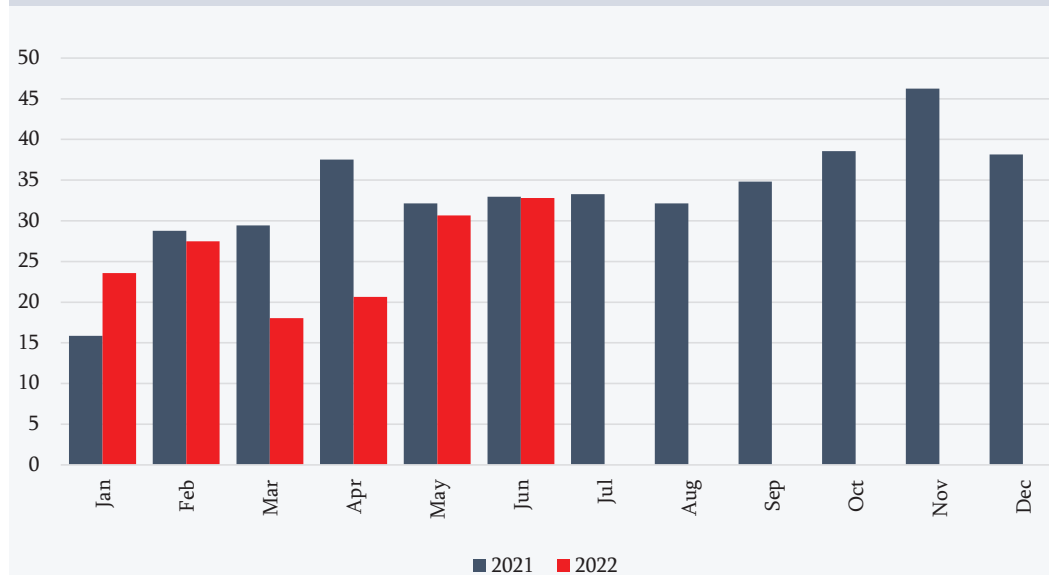
During 2021, USD 400 million worth of wine and spirits were exported from Georgia. In 2021, the shares of Russia and Ukraine in total exports were 44 and 17 percent, respectively. During the first six months of 2022, USD 153 million worth of wine and spirits were exported from Georgia, representing a 13 percent decrease compared to the corresponding period of 2021.

Table B3.1. Exports of wine and spirits by destination country

Exports of wine and spirits	2021	Share	2021/H1	2022/H1	Difference
Russia	\$175,031,984	43.8%	\$62,610,455	\$57,938,492	-7%
Ukraine	\$68,611,867	17.2%	\$10,233,631	\$3,402,967	-67%
Belarus	\$20,179,603	5.0%	\$2,274,850	\$2,271,894	0%
China	\$18,379,877	4.6%	\$7,535,574	\$7,195,420	-5%
Poland	\$14,701,006	3.7%	\$5,932,317	\$7,507,517	27%
Other countries	\$102,992,432	25.7%	\$88,134,388	\$74,861,730	-15%
Total exports	\$399,896,770	100.0%	\$176,721,216	\$153,178,021	-13%

Due to the Russia-Ukraine war, exports of wine and spirits experienced significant stress in March and April 2022. This was a result of rising uncertainty from the war, changes to terms of settlement in existing export contracts, and complications related to logistics. It is, however, noteworthy that these export dynamics improved in the following months.

Figure B3.1. Dynamics of exports of wine and spirits by month, 2021-2022 (million US dollars)



Currently, a credit portfolio of approximately USD 155 million has been created in the banking system for wine and spirits exporting companies. Due to the uncertainty in the wake of the war, a small number of exporters that are significantly dependent on the Russian and Ukrainian markets made use of a grace period for several months to service the principal amount of their loans.

At the same time, the banks conducted an additional analysis of the exporting companies to assess the challenges and risks arising from the war and to create an adequate reserve for possible credit losses. In light of the positive dynamics of wine and spirits exports in recent months, other things being equal, the probability of a material deterioration of the quality of the portfolio is small.

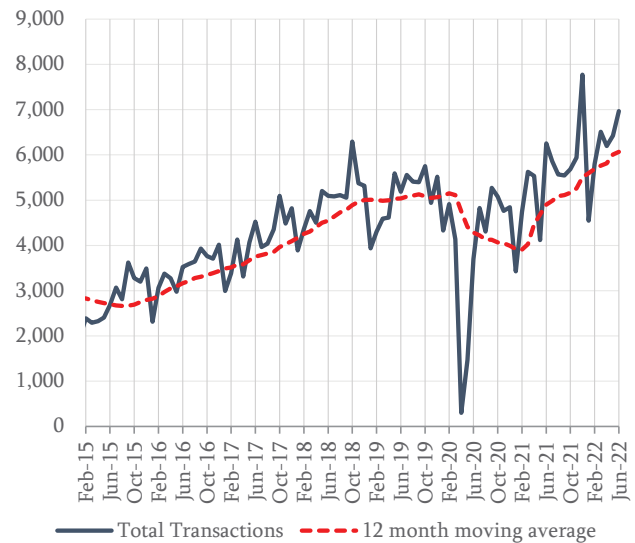
Real Estate

With the elimination of the negative consequences of the pandemic crisis, demand for real estate has increased significantly. As the demand for real estate and costs of construction have increased, a trend of rising house and rental prices has been detected. Although the market remains resilient, the ongoing military conflict between Russia and Ukraine significantly increases uncertainty in the region, which can become a source of risks for the sector. Monitoring the real estate market is thus of particular importance.

Along with the elimination of the negative consequences of the crisis, demand for real estate has increased significantly. However, given the ongoing uncertainty in the region, this trend highlights the special importance of monitoring the real estate market. The market was resilient before pandemic crisis and this, alongside the measures taken by the government, helped the sector to overcome the crisis in a timely manner. During 2022, as in the previous year, the growth of demand for real estate remained high. In the first half of 2022, the number of residential real estate transactions in Tbilisi increased by 22 percent compared to the corresponding period of the previous year (see Figure II.28). It should also be noted that, despite a slight decrease compared to previous years, the availability of real estate remains at a high level, which is an important fundamental factor of demand (see Figure II.29). Moreover, it is important to note a significant improvement of the capitalization index, which is a measure of the investment attractiveness of property (see Figure II.30). Based on the data available to the National Bank of Georgia, the real estate market remains stable; however, the Russia-Ukraine war has significantly increased uncertainty in the region, which could become a source of risks being accumulated in the sector. Based on the experience of the 2008 global financial crisis, the realization of accumulated risks in the real estate market can significantly affect the quality of banks' assets and, therefore, can become a source of financial stability risks. Real estate market monitoring is thus of particular importance.

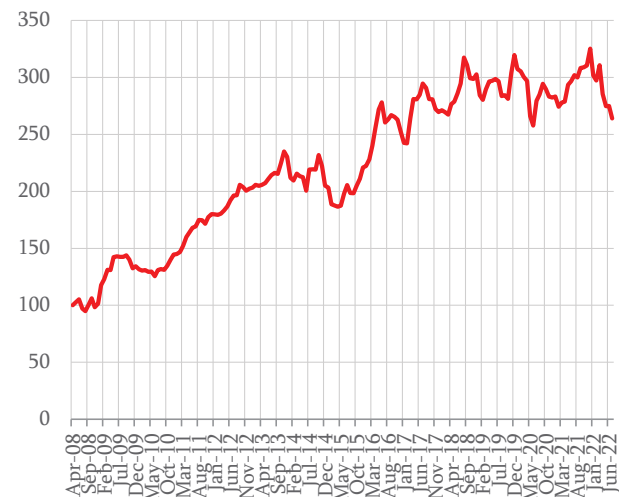
A significant part of the demand for real estate in Batumi is formed by foreigners, which makes the region particularly vulnerable to geopolitical risks. Much of that demand for residential real estate in Batumi is of an investment nature, which is largely determined by tourist inflows. During 2022, due to the effects of the pandemic subsiding and the ongoing war between Russia and Ukraine, the flow of

Figure II.28. Number of housing transactions



Source: National Agency of Public Registry

Figure II.29 House affordability index (2008=100)¹²



Source: NBG

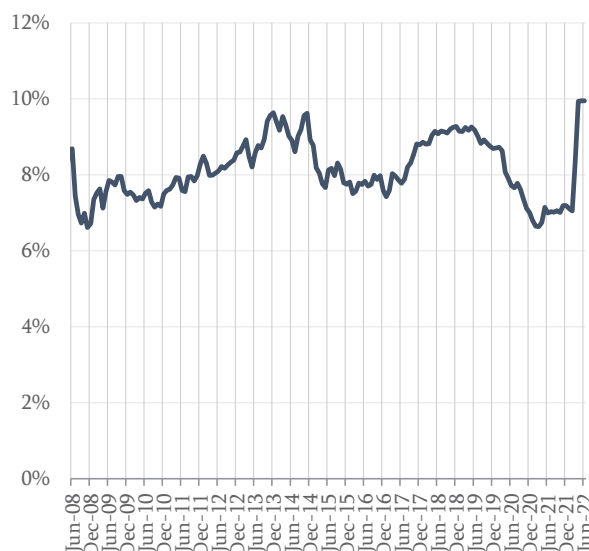
foreigners to the Adjara region has increased significantly. This has also been reflected in increased demand for real estate. In particular, in the first half of 2022, compared to the corresponding period of the previous year, real

¹² 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.

estate transactions in Batumi increased by 42 percent, and, compared to the corresponding period of 2019, rose by 47 percent. In addition, the share of non-residents in transactions has increased (see Box 4). It is important to note that non-residents, who own a third of the mortgages issued in Batumi, are more likely to default than residents – especially because of the increased uncertainty related to the ongoing military conflict in Ukraine. With the aim of reducing the risks to financial stability posed by non-residents, since 2019 the National Bank of Georgia has set LTV requirements for non-residents at 70 percent. It is also important to note that the high rate of construction of residential real estate in Batumi in recent years indicated an increased risk of excess supply; however, the increased sales this year have reduced that risk.

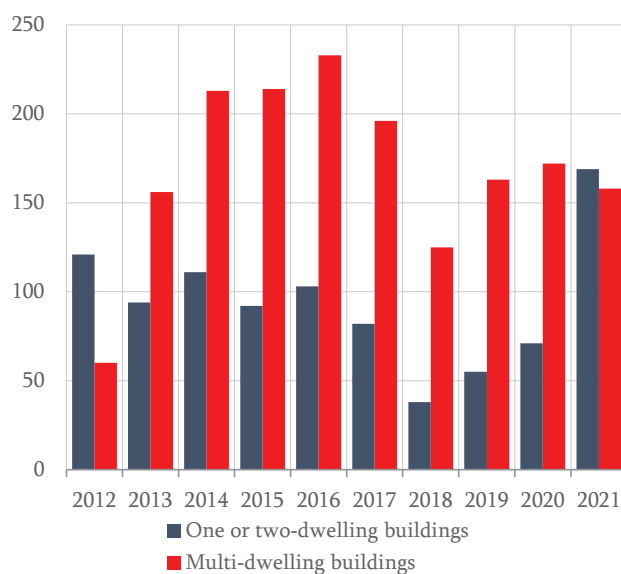
The number of permits issued for the construction of private houses have increased significantly, indicating a change in household preferences. In 2021, compared to 2020, the number of construction permits issued increased by 34 percent (see Figure II.31), which was due to a significant increase in the number of permits issued for the construction of private houses – their number doubling compared to 2020, and tripling compared to 2019. Meanwhile, the number of permits issued for the construction of multi-dwelling buildings has been largely stable over the last three years. The increase in building permits issued for private houses 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 or desire to improve living conditions. Consumer preferences have thus changed from multi-dwelling housing to private houses. It is expected that this trend will continue in the future, which should be taken into account when predicting the expected sales of property developers.

Figure II.30 Capitalization index (rent-to-price ratio)



Source: NBG

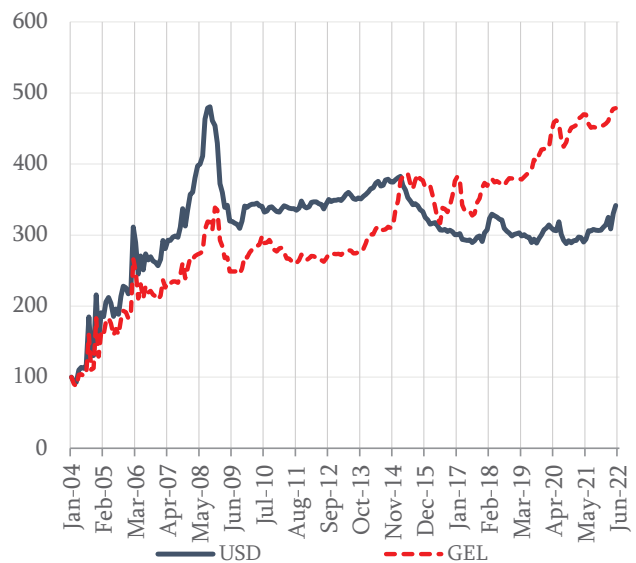
Figure II.31. Number of construction permits issued



Source: City Hall

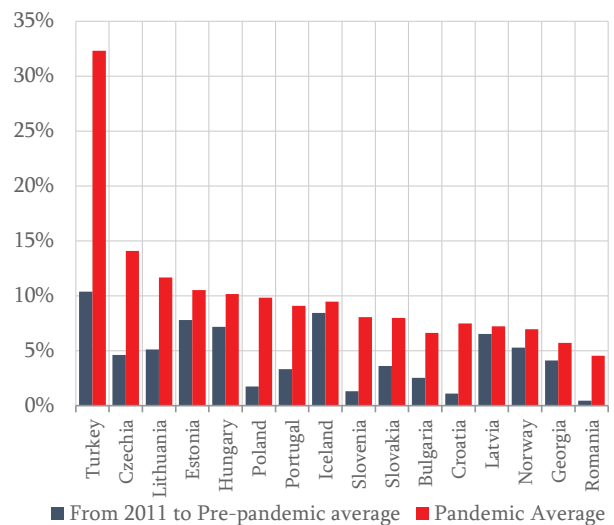
A trend of rising house and rental prices has been detected in the real estate market. This is due to both an increase in demand and rising costs of construction. Despite the severity of the shock caused by the COVID-19 pandemic, there had been no significant adjustment of real estate prices in previous years, which was mainly a consequence of the resilience of the property market before the crisis and the measures taken by government. However, in June 2022, compared to the corresponding period of 2021, the price of real estate increased by an average 5 percent in GEL and by 12 percent on average in USD (see Figure II.32). Real estate price growth dynamics have been observed in other countries too, especially after the start of the pandemic. This was partly due to the transition to online modes of work and the resulting need to improve living conditions (see Figure II.35). In addition, increased migration into the country after start of military actions in Ukraine, the recovery of tourism, and the increase in real estate investment attractiveness, have all increased demand. Construction costs have increased as well, which further increases the price of real estate. In June 2022, compared to the corresponding period of the previous year, costs of construction have increased by 18 percent.

Figure II.32. House price index



Source: NBG

Figure II.33. Residential real estate price dynamics in national currency before and after the pandemic

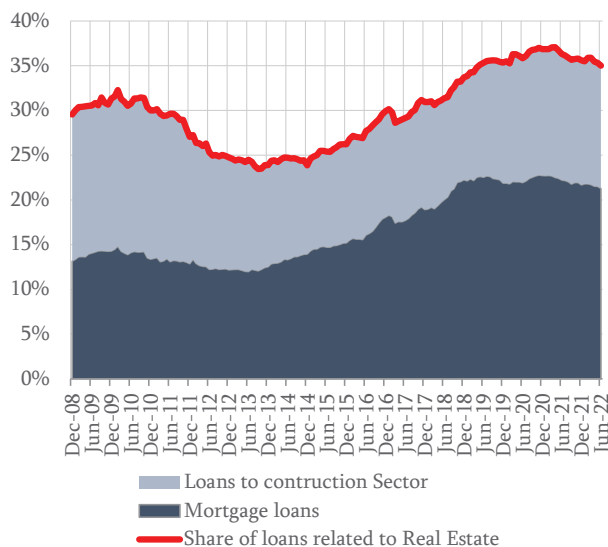


Source: ECB

The demand for commercial real estate has increased but remains below pre-crisis levels. Due to the scarcity of data, it is difficult to assess the trend of commercial real estate prices. However, during the crisis, the sharp decline in economic activity, the shift to remote work and the intensification of online sales all reduced both rental and sale prices of commercial real estate. As economic activity has increased, demand for commercial real estate also rose, but as the pandemic has altered office culture to some extent and has facilitated the development of online commerce, it is expected that demand for commercial real estate will recover at a slower pace compared to other sectors.

Although the share of loans issued to the construction and real estate sectors in the banking portfolio is high, credit quality has improved due to implementation of the responsible lending regulation. In June 2022, the share of mortgage loans in the total banking portfolio was 8 percentage points higher than in 2008, while the share of loans to the construction sector was 3 percentage points lower (see Figure II.36). It is important to note that mortgages, which are more granular, carry lower risk than loans made to the construction sector. Moreover, the adoption of the responsible lending regulation and the implementation of measures to decrease loan dollarization have contributed to reducing household vulnerability and have quickly improved the credit quality of the mortgage loan portfolio. It is also important to indicate that, in June 2022, the share of non-performing mortgage loans provided in USD decreased by 4 percentage points to 4 percent as compared to the corresponding period of 2021, while for loans issued in euro, the ratio decreased by 4 percentage points to 3 percent. However, these indicators still exceed pre-pandemic levels. Meanwhile, for loans issued in GEL, in June 2022, compared to the corresponding period of 2021, the share of non-performing mortgage loans decreased by 1 percentage point and equaled 2 percent. In addition, the share of non-performing loans in total loans issued to the construction sector decreased to the pre-crisis level of 6 percent in June 2022. Despite the declining trend in the share of non-performing loans, the high dollarization of loans issued to the construction and real estate sectors is still noteworthy from a financial stability perspective.

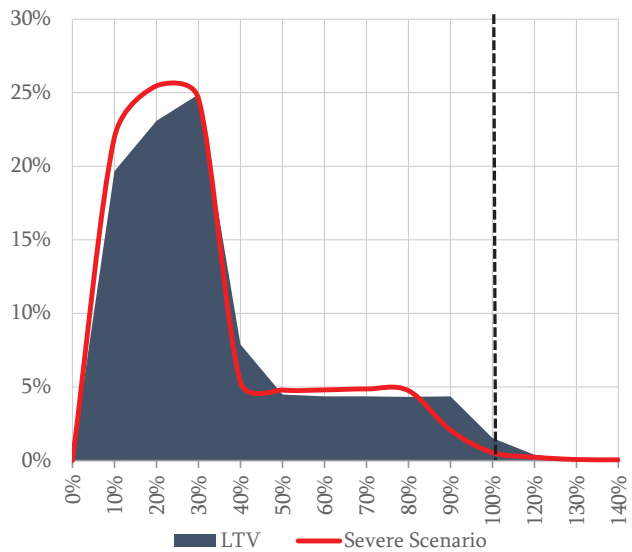
Figure II.34. Loans related to real estate



Source: NBG

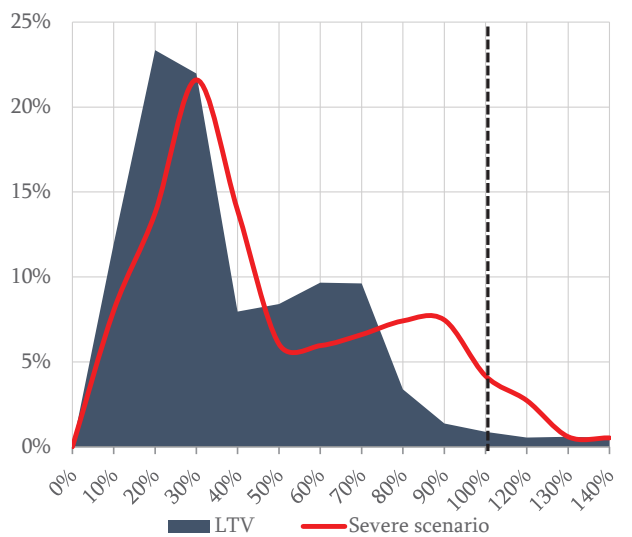
In the moderate risk scenario ¹³, the distribution of the LTV ratio does not change significantly, while in the severe scenario, an additional 5 percent of mortgages will exceed 100 percent of the LTV ratio. If the national currency depreciates by 25 percent against the USD and the euro, while real estate prices in the national currency rise by 10 percent, 9 percent of foreign currency mortgages will have a LTV ratio of more than 100 percent, which is 7 percent higher than under the baseline scenario (see Figure II.38). In the case of the moderate risk scenario, an additional but insignificant portion of foreign currency mortgages will exceed 100 percent of the LTV ratio, as compared to the baseline scenario. The distribution of the LTV ratio for mortgages issued in the national currency does not change significantly between the moderate and severe risk scenarios (see Figure II.37). Therefore, foreign currency loans carry relatively higher risk. In order to reduce this risk, since 2019 the National Bank of Georgia has set the maximum LTV ratio at 70% for foreign currency mortgages and at 85 percent for national currency loans. In addition, according to the principles of the responsible lending regulation, collateral only serves as an additional protection against risks. The main precondition for repayment of a loan remains the solvency of the borrower.

Figure II.35. Distribution of mortgage loans issued in the national currency by current and shock LTV ratios



Source: NBG

Figure II.36. Distribution of mortgage loans issued in foreign currency by current and shock LTV ratios



Source: NBG

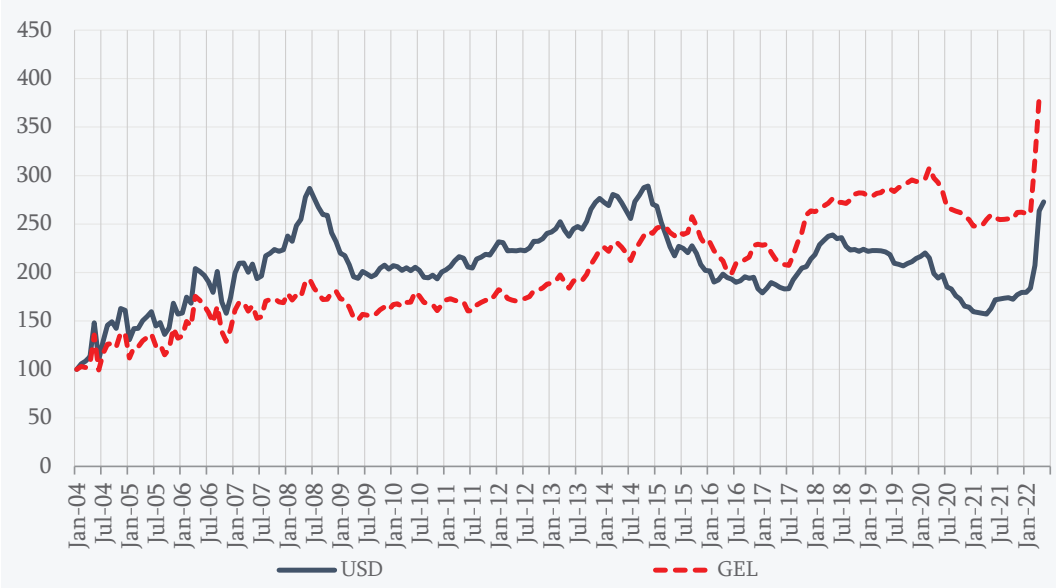
¹³ For more details, see the Macro-Financial Risk Scenarios section of this report.

Box 4. Rental prices

As a result of the increase in demand for relatively long-term rental accommodation from non-residents, rental prices have increased significantly; however, in light of the current geopolitical situation in the region, there is significant uncertainty about future trends. Due to the ongoing military conflict between Russia and Ukraine, the number of migrants in Georgia has increased significantly. As a result, demand for real estate rentals have increased and rental prices have increased accordingly. From the beginning of war in February until June 2022, 103,000 people entered Georgia from Russia, Belarus and Ukraine, which was three times higher than the corresponding period of the previous year. Consequently, in June 2022, compared to February, rental prices in GEL increased by 49 percent, while prices in US dollars increased by 59 percent (see Figure B4.1). However, due to the current situation in the region, there is high uncertainty regarding the future trend of demand for rental accommodation: this will depend on the dynamics and length of stay of visitors to the country. It should be noted that increased tourist inflows, as a result of the slowdown of the pandemic, and the return to face-to-face university education also had a positive effect on rental prices. Therefore, in the short term, it is expected that rental prices and the capitalization rate will remain at a relatively high level. However, in the medium term, as a result of a decrease in the number of migrants and/or an increase in the supply of rental real estate, the capitalization rate will approach the pre-pandemic level.

The increase in rental prices makes real estate more attractive as an investment asset; however, in order to prevent the accumulation of risks in the credit portfolio, it is important to base lending decisions on the medium-term dynamics of rental prices. A sharp increase in prices of rent and, as a result, a rising capitalization rate makes real estate a more attractive investment asset, which may significantly increase the demand for real estate for investment purposes. This, in turn, will contribute to the growth of real estate prices and the expectation of receiving high returns in future. However, if investment and lending decisions are based on short-term rent dynamics, in the event of a decrease in the number of long-term migrants, real estate prices will be negatively affected and may increase the riskiness of the mortgage loan portfolio. Therefore, in order to avoid accumulating financial stability risks, it is especially important that decisions to issue mortgage loans are based on medium-term rental dynamics.

Figure B4.1. Rental price index



Source: NBG

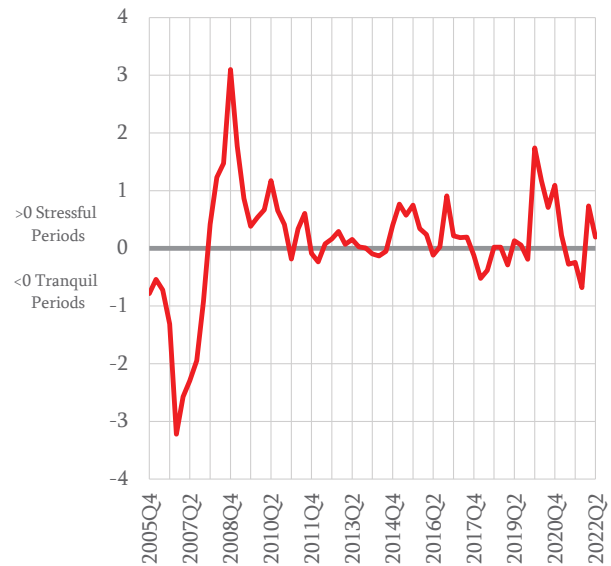
III. Financial Sector

Financial Sector review

As a result of the financial stability policy measures implemented by the National Bank of Georgia over time, the financial system has retained its resilience 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 any difficulties. Despite a significant decline, dollarization remains one of the major challenges for the financial sector; however, considering the enactment of recent macroprudential measures, it is expected that dollarization will continue to decrease, and the risks arising from it will be loosened.

The financial sector has successfully passed through the most severe phase of the shock caused by the pandemic and, despite increased risks as a result of the Russia-Ukraine war, the sector remains resilient. In 2021, having successfully passed through the most severe phase of the shock, the liquidity, capital adequacy, loan quality, and profitability of the banking system improved. As a result, the financial stress index (FSI)¹⁴ declined (see Figure III.1). The war initiated by Russia against Ukraine and the corresponding sanctions imposed on Russia have significantly increased uncertainty about macroeconomic trends in the region. In Georgia, direct sanctions were imposed only on one subsidiary of a Russian bank and this problem was soon resolved by the sale of parts of its assets and liabilities to other banks. However, amid the increased uncertainty, in the first quarter of 2022, the FSI rose by 0.8 standard deviations, indicating increased risks. The growth of the stress level was caused by the increase in the risk premium and the fluctuation of the GEL exchange rate. In the second quarter of 2022, along with improved banking sector indicators, the risk premium and exchange rate stabilized and, as a result, the FSI decreased.

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

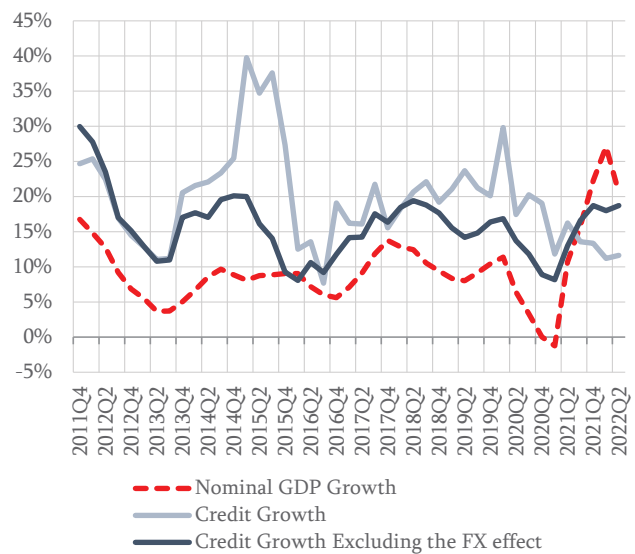


Source: NBG

¹⁴ Considering the fact that the banking system accounts for more than 90 percent of the Georgian financial sector, the index mainly combines the profitability, interest rate spread, capital and asset quality indicators of the banking sector. In addition, the index combines the exchange rate and risk premium indicators. The index is constructed by standardizing the variables and then weighting them.

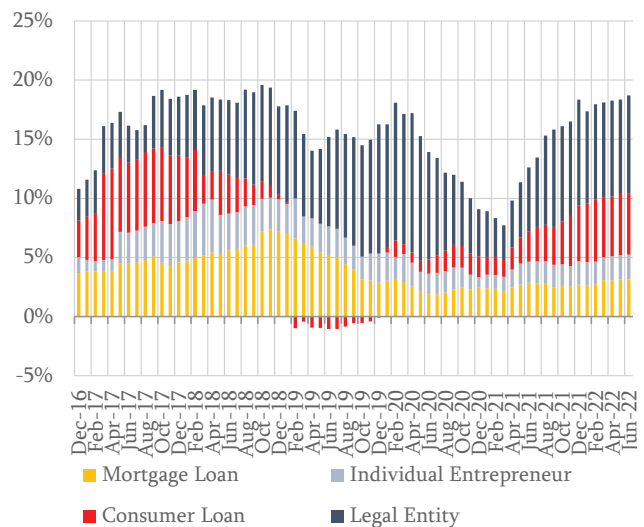
Despite increased uncertainty, the banking system continues lending to the economy without any difficulties and credit activity remains at a sustainable level. From the second half of 2021, the loan growth rate (excluding the FX effect) was slightly below the nominal GDP growth rate (see Figure III.2). It should be noted that over the recent period the contribution of business loans to total loan growth has been significant. In June 2022, the growth rate of total loans amounted to 19 percent, of which business loans made a contribution of 10.6 percentage points (see Figure III.3). From the second half of the previous year, the growth rate of consumer loans rose significantly and, in June 2022, amounted to 31 percent (see Figure III.4). Considering the expected impact of monetary and macroprudential instruments and current tendency of lending activity, at the end of 2022, other things being equal, loan growth will be around 15 percent.

Figure III.2. Annual growth of nominal GDP¹⁵ and credit



Source: NBG

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

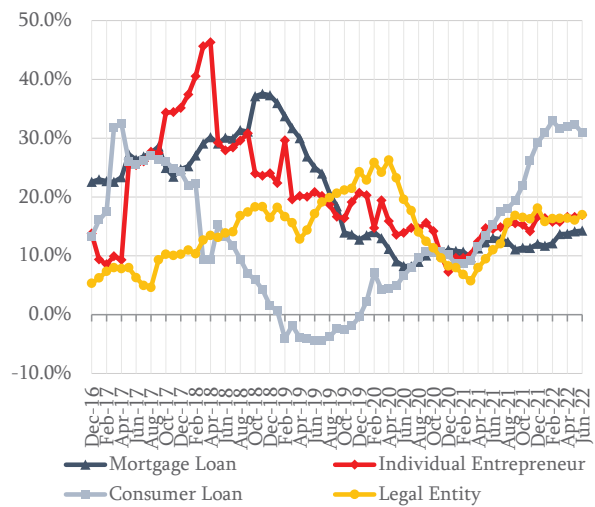


Source: NBG

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

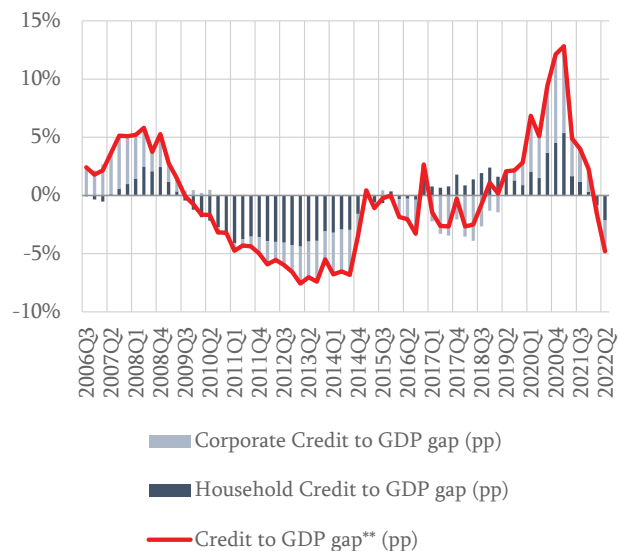
The credit¹⁶-to-GDP ratio is below its trend¹⁷, indicating a reduced debt burden and lower vulnerability of borrowers. Against the background of economic recovery, as expected, the credit-to-GDP ratio gradually declined and, in the second quarter of 2022, fell below its long-term trend (see Figure III.5). 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. It is expected that the credit-to-GDP ratio will remain below its trend until the end of 2022 and will then gradually converge with its trend in 2023.

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



Source: NBG

Figure III.5. Credit-to-GDP gap

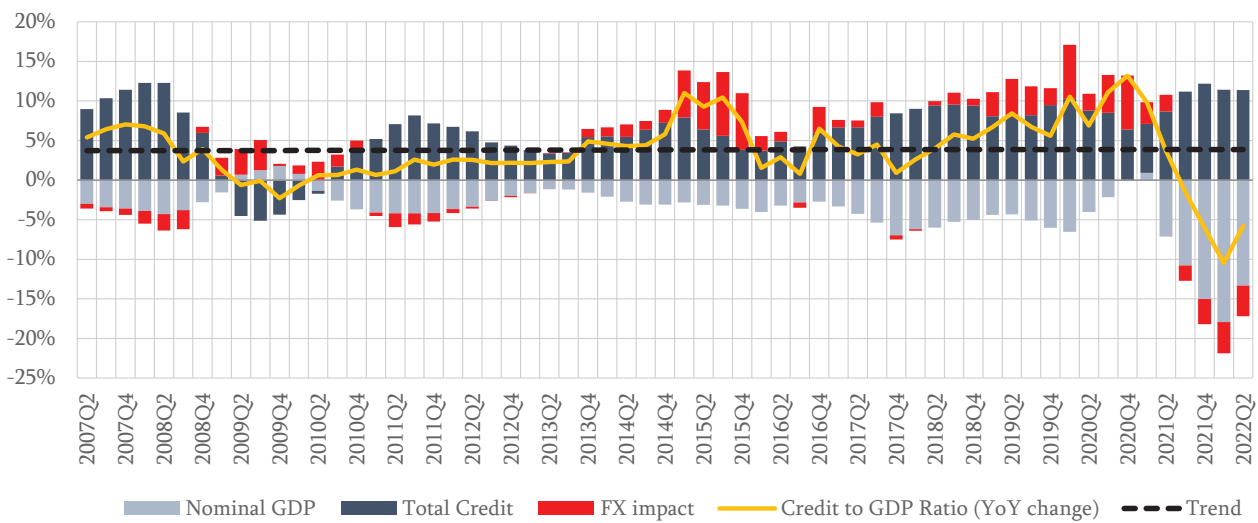


Source: NBG

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

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

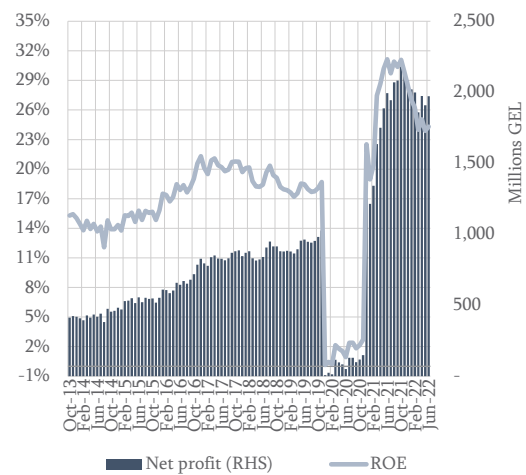
Figure III.6. Decomposition of the YoY change in the credit-to-GDP ratio



Source: NBG

In 2021-2022, amid the economic recovery, the profitability of the banking system remained at a solid level, which was mainly due to low credit losses. Amid the economic recovery, the profitability of the banking system reached a solid level. Improved profitability has mainly been supported by low credit losses and increased net interest income, which, in turn, was promoted by high credit growth, increased interest margins, and the loan loss reserves that had been created in advance in 2020. If the current trend of profitability is maintained, it is expected that the ROE will be around 20 percent by the end of the year (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.

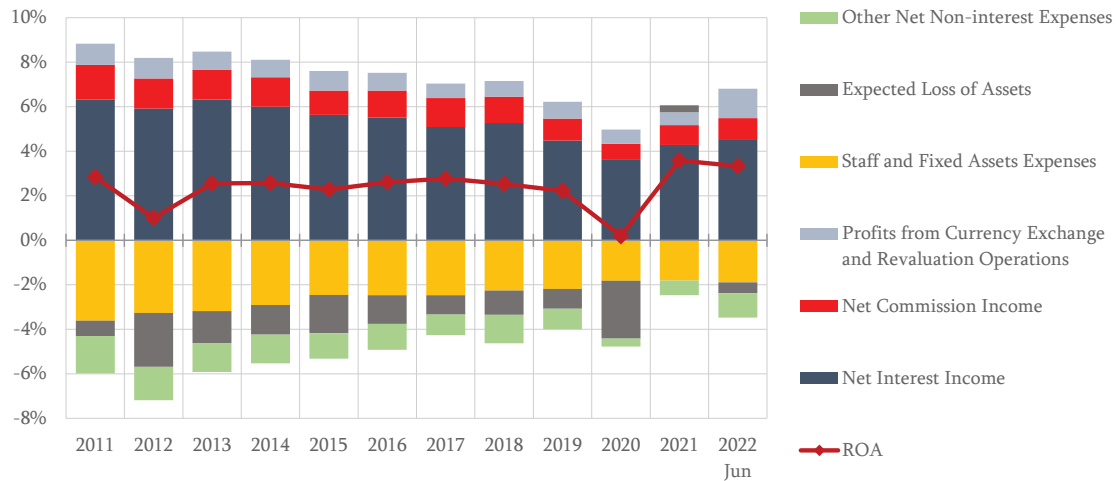
Figure III.7. Profitability¹⁸ in the banking sector



Source: NBG

¹⁸ This calculation is based on the data of the last 12 months.

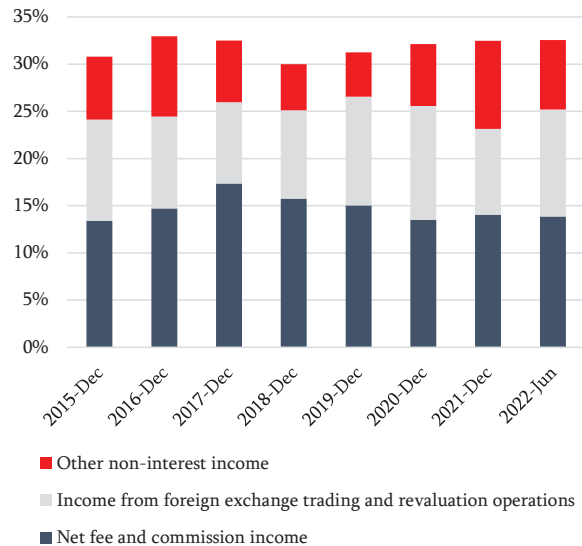
Figure III.8. ROA decomposition for the banking sector



Source: NBG

In recent years, the share of non-interest income in total income¹⁹ has been largely stable and, in the second quarter of 2022, amounted to 33 percent. Net commission income 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 income from foreign exchange trading is high, amounting to 35 percent in June 2022. 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.9. The structure of non-interest income for the banking sector



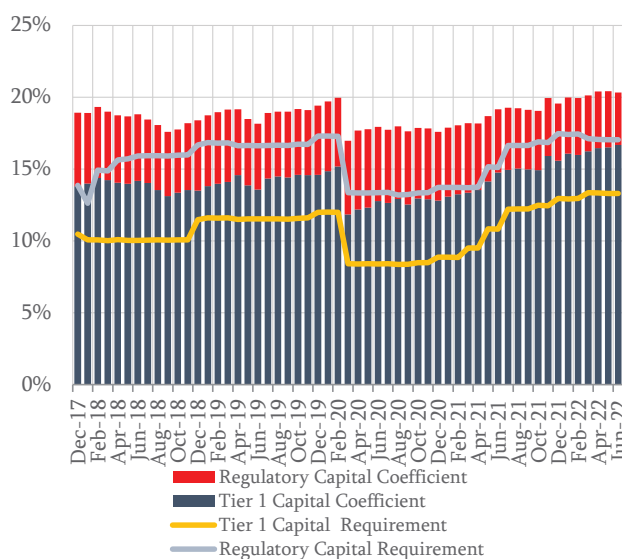
Source: NBG

19 Net interest income + non-interest income.

As a consequence of the earlier enactment of supervisory requirements, alongside historically stable profitability, the banking system maintains solid capital buffers against the potential risks posed by the tense geopolitical situation in the region. In recent periods, the capital ratios of the banking system have remained 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, and net GRAPE buffer). To reduce the impact of negative shocks resulting from the COVID-19 pandemic, from March 2020, the NBG released certain capital requirements: the capital conservation buffer requirement (2.5% of risk-weighted assets) and a portion of the Pillar 2 buffer requirement (2/3 of the currency-induced credit risk buffer) were eliminated. In June 2021, according to the Financial Stability Committee’s decision, effective 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 the restoration of the released capital requirements has already gradually started and, through improved financial indicators, a significant part of banks have already restored the released capital buffers.

In addition, 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. As a result, new rates for the credit risk concentration and net GRAPE buffers came into effect in March 2022. These amounted to 45 percent for core Tier 1 capital and 60 percent for Tier 1 capital (see Table III.1). A final increase in buff-

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



Source: NBG

er rates is planned for March 2023. As a result of the changes mentioned above, the quality of capital is expected to improve. Moreover, in the first half of 2022, the majority of commercial banks maintained solid capital buffers (see Figure III.11).

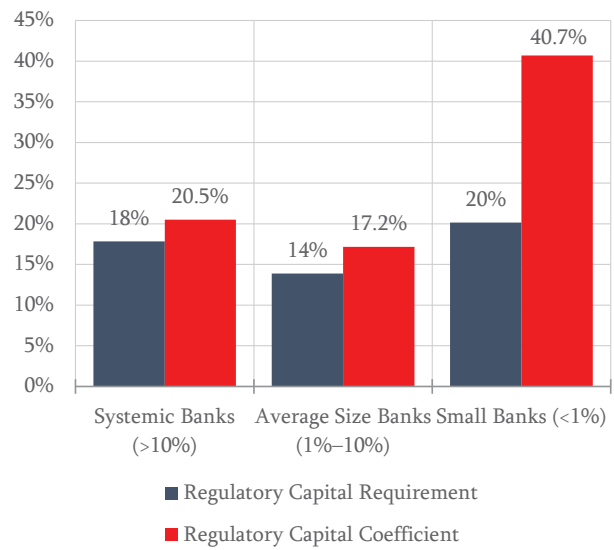
Table III.1. Concentration and net GRAPE buffer rates

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

Source: NBG

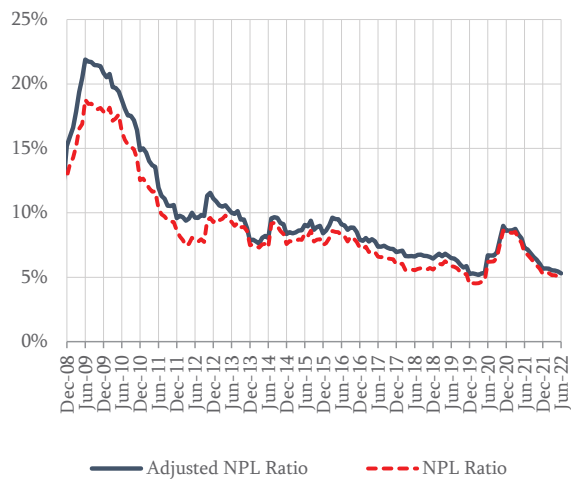
Following the economic recovery, the share of non-performing loans has declined to reach close to pre-pandemic levels. In the baseline scenario, despite the high levels of uncertainty, no increase in this indicator is expected. As expected, amid the economic recovery, the share of non-performing loans gradually declined and, in June 2022, approximated to 5 percent (see Figure III.12). According to the decomposition of the annual change of the non-performing loan ratio, the decline in the ratio at the beginning of 2022 was mainly caused by a decrease of non-performing loans rather than loan portfolio growth (see Figure III.13). 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.14). It should be noted that the non-performing loans coverage ratio remains at a high level. In June 2022, the ratio of loan loss reserves to non-performing loans amounted to 90 percent (see Figure III.15). 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.11. Distribution of capital adequacy in the banking sector



Source: NBG

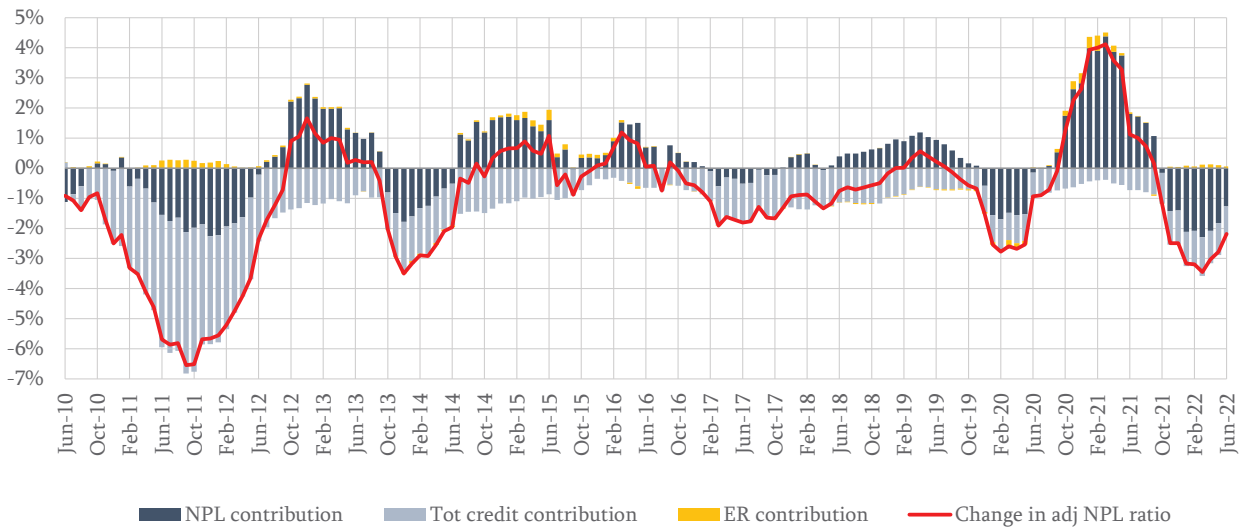
Figure III.12. NPL ratio for bank loans²⁰



Source: NBG

²⁰ According to the NBG’s methodology, NPLs include substandard loans together with doubtful and loss loans.

Figure III.13. Decomposition of the annual change in the adjusted NPL ratio²¹



Source: NBG

Figure III.14. The share of loans that used grace periods



Source: NBG

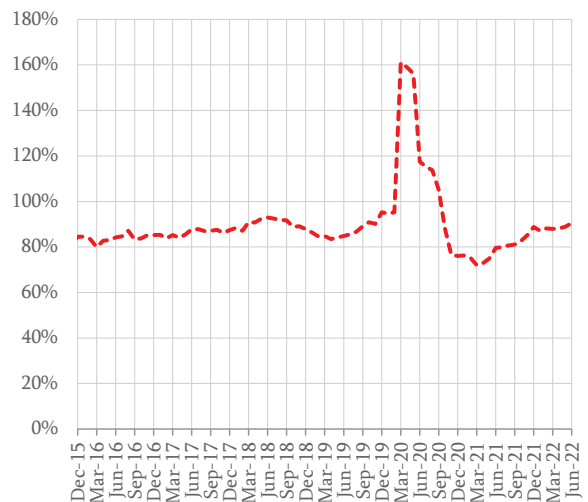
Amid the uncertainty caused by the Russian invasion of Ukraine, similarly to the tendency on global stock markets, the stock prices of Georgian banks declined; however, a recovery of prices started soon thereafter. Increased uncertainty related to the Russia-Ukraine war, the increase in the risk premium, and the fluctuation of the exchange rate have all negatively affected the stock prices of Georgian banks. In February 2022, similar to the global tendency,

their stock prices fell, but soon began to recover (see Figure III.16). The process of recovery in 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.

²¹ The adjusted NPL ratio accounts for loan write-offs and recoveries during the last 12 months.

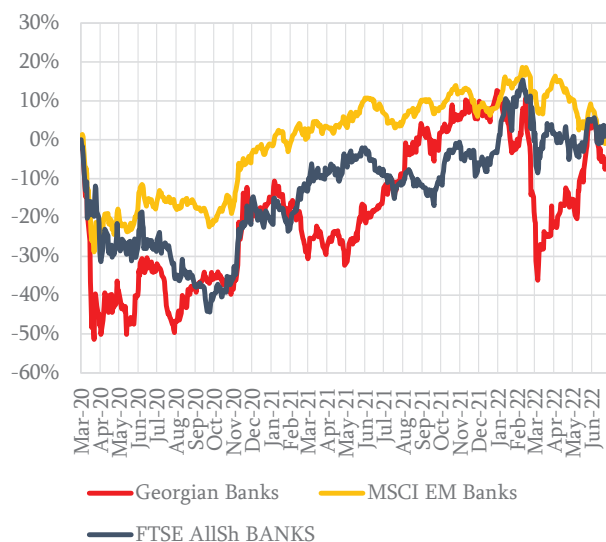
Liquidity risks have increased against the background of the uncertainty related to both the pandemic and the Russia-Ukraine war. However, commercial banks maintain solid liquidity buffers as a result of the measures implemented by the NBG. After successfully passing through the quite severe phase of the shock caused by the pandemic, banks were able to face the increased risks resulting from the tense regional geopolitical situation with stable sources of funding and solid liquidity buffers – as facilitated by the net stable funding (NSFR) and liquidity coverage (LCR) ratios that were implemented before the pandemic. In the current period, the LCR ratios for the banking system in both the domestic and foreign currencies significantly exceed the minimal requirements (see Figure III.17). In addition, over the last year, the NSFR has been maintained at close to 130 percent, which enables the dependence on short-term financing to be reduced. It should be noted that in the current period the share of non-resident deposits amounted to 15 percent (see Figure III.18). However, considering that these deposits are diversified by country of origin, that the NBG has introduced additional liquidity requirements, and that the share of term deposits in these deposits is relatively high, the liquidity risks for banks in this regard remain low.

Figure III.15. NPL coverage²² in the banking sector



Source: NBG

Figure III.16. Normalized equity prices²³

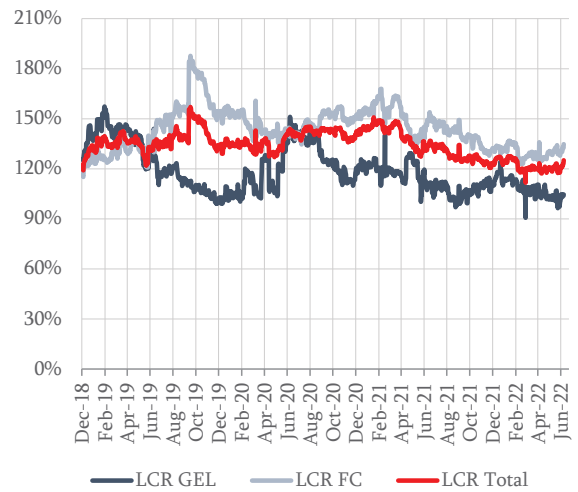


Source: NBG, Bloomberg.

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

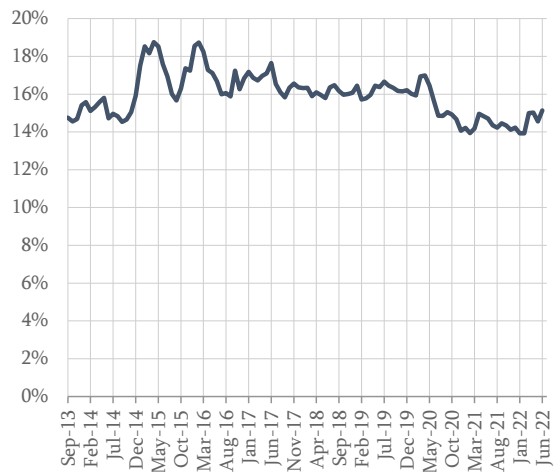
23 For Georgian banks, the index is weighted by equity capital. The data are normalized and reflect the percentage change with respect to the prices seen as of 2 March 2020.

Figure III.17. Liquidity coverage ratio (LCR) for the banking sector²⁴



Source: NBG

Figure III.18. Share of non-resident deposits in total deposits



Source: NBG

²⁴ The minimal requirement of LCR in GEL amounts to 75 percent, while for FX and in total it amounts to 100 percent.

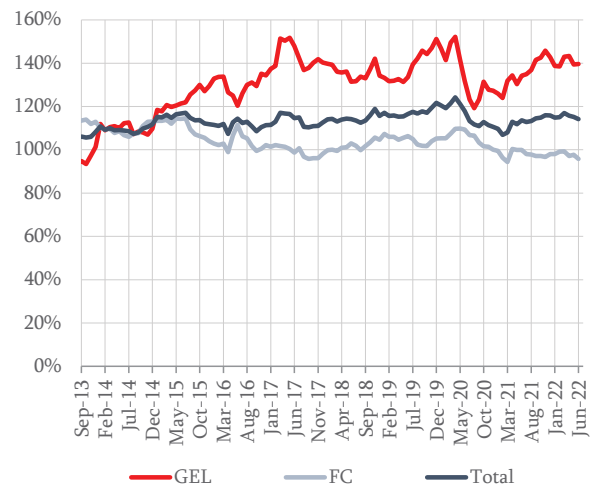
In order to maintain sustainable growth in domestic currency lending and to reduce reliance on other source of funding, the banking system needs to attract more deposits in the domestic currency. Over the last period, the loan-to-deposit ratio in domestic currency has been increasing and remains at a high level, amounting to 147 percent in the first half of 2022 (see Figure III.19).²⁵ However, despite the fact that, compared to deposits, borrowed funds are generally less stable sources of funding, such funds of 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 100 percent indicating that loans in foreign currency are financed through relatively stable funds. Therefore, the liquidity risk in foreign currency, in this regard remains low. Given that the NBG is more flexible in supplying liquidity in the local currency, the stability of foreign currency funding is crucial.

Dollarization has declined significantly over the last period, but it remains a major challenge for the financial sector. The share of loans issued in the local currency has increased significantly. In the first half of 2022, compared to the same period of the previous year, loan larization (de-dollarization) increased by 2 percentage points and amounted to 50 percent (see Figure III.20). Despite a significant decline in recent years, dollarization remains at a high level (see Figure III.21). Given that most foreign currency borrowers are still unhedged, a depreciation of the local currency increases 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 January 2022, the methodology for calculating that currency-induced credit risk (CICR) buffer changed.²⁶ The CICR buffer will be determined based on the level of loan dollarization instead of the previous 75 percent risk weight. If dollarization is 40 percent or below, the weight will be set at 40 percent and each 1 percentage point increase in dollarization will result in raising the risk weight by 3 percentage points, up to 100 percent. This change stimulates larization and, with increasing larization, the capital buffer requirement will soften over time with the systemic risk stemming from the exchange rate also decreasing. Despite the fact that interest rates on foreign deposits are

²⁵ 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.

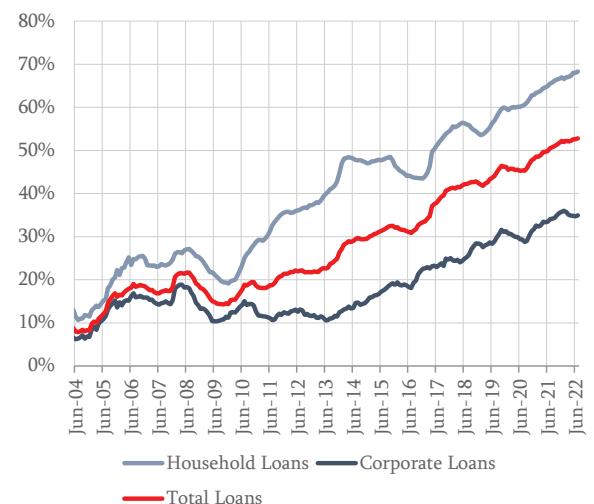
²⁶ See <https://nbg.gov.ge/financial-stability/committee>

Figure III.19. Loan-to-deposit ratio



Source: NBG

Figure III.20. Larization at a fixed exchange rate



Source: NBG

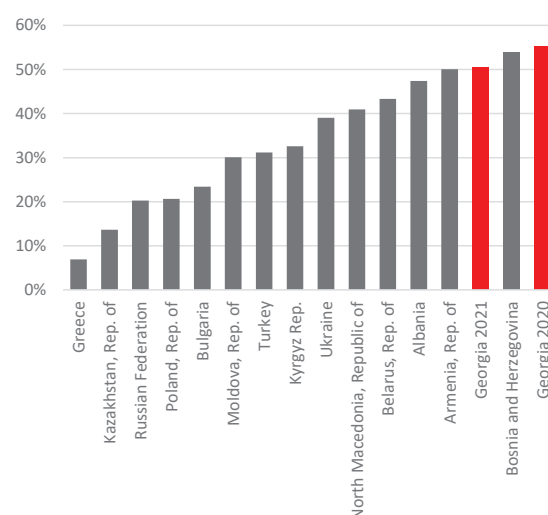
relatively low, it is noteworthy that the dollarization of deposits remains high, especially for deposits of natural persons. In order to encourage deposit de-dollarization, from July 2021 a new rule for determining the minimum reserve requirement for funds raised in foreign currency came into force.²⁷ According to this rule, the minimum reserve requirement for each commercial bank is determined based on deposit dollarization. By decreasing loan dollarization, with other factors remaining unchanged, banks will be able to increase leverage and therefore lending to the economy.

²⁷ See <https://nbg.gov.ge/en/media/news/changes-in-the-minimum-reserve-requirement-for-commercial-banks-to-take-effect-on-july-6>

The share of floating interest rate loans has been increasing over the recent period, which may increase the credit risk for banks. However, in the current year, the NBG introduced an additional requirement related to the responsible lending regulation, which will reduce this risk. As of June 2022, the share of floating interest rate loans in GEL, USD and EUR amounted to 42, 56 and 71 percent, respectively. Amid the existing uncertainty, USD and EUR interest rates have increased on global markets and these are expected to increase further in the future, which exposes banks to increased credit risk. However, an additional requirement related to responsible lending, which became effective from May 2022, serves to significantly reduce this risk.²⁸ According to this requirement, commercial banks should take into account an interest rate shock of 3 percentage points when assessing borrowers' creditworthiness. It should also be mentioned that, as the movements of domestic interest rates are more aligned with the domestic economic cycle, credit risk in the local currency is significantly reduced.

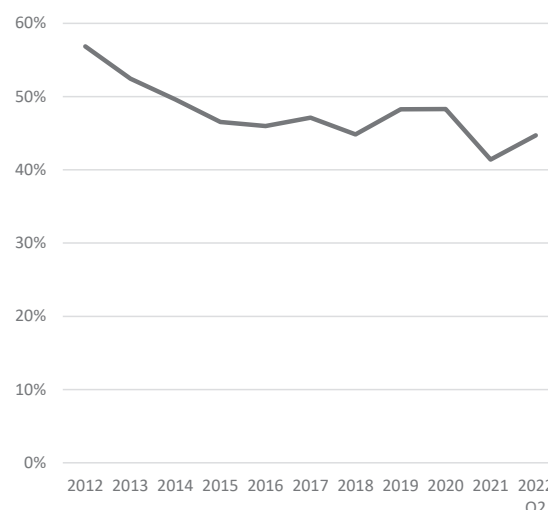
Georgia's banking sector is highly concentrated. However, considering that the interest rate spread has had a declining trend over recent years, this does not prevent competition in the market. In general, a high level of concentration might be associated with low competition, leading to higher interest rates. However, in the case of Georgia, the interest rate spread has a declining trend over time. It can thus be concluded that high concentration does not prevent competition in the Georgian financial market. In addition, in recent years, the share of systematically important banks in total lending has been stable and the efficiency of the banking sector has improved – as evidenced from the declining trend of the ratio of non-interest expenses to total income (see Figure III.22). These two factors additionally indicate that concentration does not prevent competition in the financial market.

Figure III.21. Loan dollarization by country (2020)



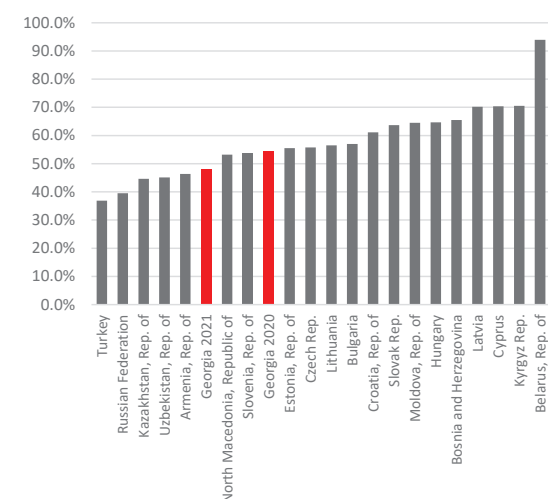
Source: IMF

Figure III.22. The ratio of non-interest expenses to income for commercial banks



Source: NBG

Figure III.23. The ratio of non-interest expenses to income for commercial banks by country (2020)²⁹



Source: NBG

28 See <https://nbg.gov.ge/financial-stability/committee>

29 In the indicator calculated by the IMF's methodology, "commission and other expenses received from services" are included in non-interest expenses, while in Figure III.22 the expenses mentioned above are deducted from non-interest income.

The NBG promotes the development of financial innovations, which will increase the population's access to finance and encourage competition in the financial sector. In order to encourage ideas related to innovative technologies in the financial sector and to convert these ideas into a sustainable financial model, the National Bank of Georgia has established a financial innovations office, which serves as the main channel of communication between financial innovators and the NBG.³⁰ It should also be noted that the NBG has developed a framework for a regulatory laboratory, which allows representatives of the financial sector to test innovative services and products in a supervised environment in real time.³¹ In addition, the NBG has published the principles of digital banking licensing.³² The emergence of new entities through digital banking will promote the development of a 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. It should be noted that on 4-5 May 2022 a digital currency conference was held in Tbilisi in partnership with USAID.³³ Leading technology companies took part in the event, and, after the conference, the technological requirements that the digital GEL technology should meet in a pilot mode were specified.

Despite the increased uncertainty in the region, there were no significant cybersecurity threats to the Georgian banking system. However, risks in this regard have been heightened. Cybersecurity has become a significant challenge for the financial sector globally over the past few years. Amid the pandemic, cyber-risks increased significantly, threatening the stability of both individual banks and the banking system as a whole. During the past year, cyber-attacks did not increase significantly, with only a small number of “phishing” and distributed denial-of-service (DDoS) attacks noticed in the Georgian financial system. However, it should be noted that given the recent development and introduction of remote service channels, and against the background of existing geopolitical tensions, risks related to cybersecurity

have increased. Considering this, according to the current cybersecurity supervisory requirements, Georgian commercial banks are required to implement and regularly evaluate their cybersecurity controls. Compared to 2020, in 2021, total operational losses of Georgian commercial banks declined by 6.5 percent and amounted to GEL 27.7 million; similarly to 2020, these operational losses were mainly recorded in the business lines of retail banking services and, to some extent, in commercial banking services.

The National Bank of Georgia has decided to develop a supervisory framework for micro banks, which are a new type of financial institution. Because the non-banking financial sector is diverse and includes both single-product-oriented entities and large organizations with a broad profile, it is important that, despite having the same status, different business models are subject to different regulatory and supervisory regimes. Micro banks, as a new type of financial institution, will be able to operate in a sector where, due to high operating costs, the interest of commercial banks has been relatively low. The statutory mandate of micro banks, which are mainly to lend to the entrepreneurial and agricultural sectors, will increase the financial inclusion of the population, especially in the regions. In addition, the costs of a micro bank, as compared to a micro-finance organization, will be significantly reduced and their access to resources in the local and international markets will increase. This, in turn, will make credit products cheaper and, accordingly, will promote an increase in competition.

The non-bank financial sector has successfully passed through the most severe phase of the shock caused by the pandemic, and it holds solid liquidity and capital buffers to respond to existing risks. Georgia has one of the highest levels of household accessibility to formal banking services, which indicates that demand for shadow financial services remains low.³⁴ In terms of the accessibility to formal financial services, the role of non-banking institutions is also important. As a result of the supervisory regulations implemented in recent years, these institutions were able to withstand the pandemic-induced difficulties and maintain solid liquidity and capital buffers in response to existing risks. In the first half of 2022, the assets of the non-banking financial sector amounted to GEL 2.2 billion, which is 3.4 percent of the total assets of the financial sector. The largest share of non-banking financial institutions' total assets, GEL 1.7 billion, belongs to microfinance organizations. In June 2022,

30 See <https://nbg.gov.ge/en/page/financial-innovation-office>

31 See <https://nbg.gov.ge/en/page/regulatory-laboratory>

32 See <https://nbg.gov.ge/fm>

33 See <https://nbg.gov.ge/en/media/news/governor-gvenetadze-discusses-future-prospects-of-digital-gel-at-international-conference>

34 See <https://data.imf.org>

compared to the previous year, the quality of the loan portfolio of microfinance organizations improved and the NPL ratio amounted to 5.6 percent. It is noteworthy that loan dollarization in the portfolios of microfinance institutions declined significantly to nearly 2.5 percent. In the recent period, the capital adequacy ratio for microfinance organizations amounted to 35 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 provide financial services to customers without difficulty, even in stressful conditions.

Following the current global trend, banking groups in Georgia have actively started developing electronic trading platforms and relevant ecosystems. In order to manage risks related to such ecosystems, the NBG has shared the main principles of ecosystem functioning with systemically important commercial banks. These relate to the openness of the platforms; their accessibility; operations on the principle of open hand; the need for ownership of appropriate resources by the ecosystem in order to avoid use of a bank's resources; decision-mak-

ing processes; and the exclusion of conflicts of interest. By supervising systematically important commercial banks' internal policies, procedures and practices, the NBG actively monitors their compliance with the above-mentioned principles. In addition, the NBG actively cooperates with the Competition Agency on issues related to the functioning of these ecosystems.

In addition, the NBG continues to improve the regulatory framework for these ecosystems. As part of this process, for the purpose of consultations, the NBG provided market participants with information related to changes to the by-laws related to management of conflicts of interest. The aim of these changes includes the process of transparent cooperation between the bank and the platforms and the construction of equal terms for market participants. The goals of the National Bank in this direction are to create a competitive environment, to ensure a truly open financial ecosystem, and to encourage the use of appropriate new financial technologies. A further objective is to ensure that the platform business models, as used by large and related groups, develop in such a way that information asymmetry and systemic risks can be adequately supervised.

Box 5: Possible limitation of competition on the insurance market from financial organizations

It is a widespread practice for financial organizations to require credit repayment risk insurance when offering a loan/credit, even though this is not mandatory by law. In this regard, over the years, financial organizations in Georgia have mostly been cooperating with one or two insurance companies – in many cases being directly affiliated with them – and the financial organizations have themselves been offering those same insurance companies' products to their consumers. Such practices increase the risk of a possible limitation of consumers' freedom of choice related to insurance companies and products and have restricted competition on the insurance market.

Therefore, in order to promote competition in the insurance sector and to raise the standards of financial Consumer Rights Protection, including increasing the choice for consumers, a new edition of the "Protection of Consumer Rights while Rendering Services by Financial Institutions" has been in force since 1 April 2021.

Among other things, the new requirements make it mandatory for financial organizations, when offering insurance related to a specific product, to offer consumers three possible alternative products from a minimum of three different insurance companies. In addition, customers must be informed that they can independently find and submit an alternative insurance policy of their choice. Also, financial organizations are obliged to inform their customers about the minimum conditions that such policies must meet. In addition, all relevant information related to insurance should be made fully available to the customer. In order to meet these requirements, financial organizations needed to cooperate and share their portfolios with insurance companies beyond their existing partner companies.

Following the enactment of the abovementioned requirements, the situation concerning offering alternatives to consumers has relatively improved, as is indicated by the low number of related complaints made by consumers and by the process of offering credit products through remote channels. However, despite the fact that, after the enactment of these changes, several insurance companies were able to start cooperation with financial organizations, the dynamics of the redistribution of the credit-related insurance portfolio to several insurance companies is still unfavorable. There are signs that financial organizations are evading the abovementioned requirements by using various sales techniques. Determining this will require additional research, including employing mystery shoppers.

Considering the above-mentioned facts, the possible limitation of competition in the insurance market by financial organizations remains a challenge. In order to prevent this risk, it might be necessary to consider limiting the ownership of insurance companies by financial organizations or to restrict structural connections between them, as well as changing the remuneration scheme by limiting the possibility of financial organizations' administrators to receive income from insurance activities. This requires further discussion with the involvement of financial and insurance sector regulators.

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 scenarios employed 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 the 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 2022 Monetary Policy Report.³⁵

The moderate risk scenario considers a prolongation of the Russia-Ukraine war and a tightening of global financial conditions. As a result, uncertainty in the market is significantly increased and economic recovery is delayed, especially in developing and emerging market economies. War-induced supply chain problems will cause an increase in inflationary expectations in developed countries, which, against the background of already high inflation, leads to a faster-than-expected tightening of monetary policy. This will be transmitted to developing and emerging market economies in the form of tighter financial conditions, which, in turn, will exacerbate risks of capital outflows. The deterioration of expectations related to the recovery of the economy and the growing tendency of risk aversion will become an additional driver for the tightening of financial conditions in this group of countries. As the situation in the region stabilizes and supply chain disruptions are resolved, expectations and market sentiment will gradually improve in developing and emerging market economies. The economic recovery in such countries will gain momentum from the second half of 2023.

In the moderate risk scenario, the prolongation of the Russia-Ukraine war will significantly hinder the economic recovery of Georgia's trading partner countries. The deterioration of expectations related to economic recovery in these countries and the increased uncertainty re-

garding the geopolitical situation have a negative impact on market sentiment. As a result, the positive dynamics observed in the first half of the current year in terms of tourist inflows and remittances are lost. Close trade relations with Russia further exacerbate external risks, which, in the case of an additional tightening of sanctions, will be reflected in a severe disruption of trade circulation in Georgia. Against the backdrop of deteriorating market sentiment and weaker-than-expected economic fundamentals, the country risk premium will rise and the local currency will depreciate. Consequently, the debt burden for foreign currency borrowers increases.

In this scenario, amid deteriorating expectations and increased debt burdens, households and companies reduce spending on consumption and investment. Some companies with financial sustainability risks face with solvency problems due to reduced revenues and an increased cost of debt servicing. These risks are aggravated by the future depreciation of the national currency and the high dollarization of loans. Furthermore, the delayed recovery of economic activity may lead to the closure of some businesses following a reduction in demand. Consequently, unemployment increases and, due to reduced incomes, households face difficulties in servicing their debts. The growing credit risk worsens the availability of loans and further hinders the pace of economic recovery. At the same time, the potential resources for providing additional fiscal support to the economy are limited due to an increased level of government debt. As a result, at the end of the current year, and in the first half of 2023, real GDP exhibits weak growth. Economic recovery gains pace from the second half of 2023.

Under the moderate risk scenario, with deteriorating expectations for future economic growth and weak domestic demand, real estate activity declines, putting downward pressure on real estate prices. However, given the increased prices of construction materials and the depreciated national currency, real estate prices expressed in GEL increase. In coming years, the growth of real estate prices will be driven mainly by the improvement of expectations and the stabilization of intermediate product prices.

³⁵ See <https://nbg.gov.ge/fm/./2022/2022q3-eng.pdf?v=c27ib>

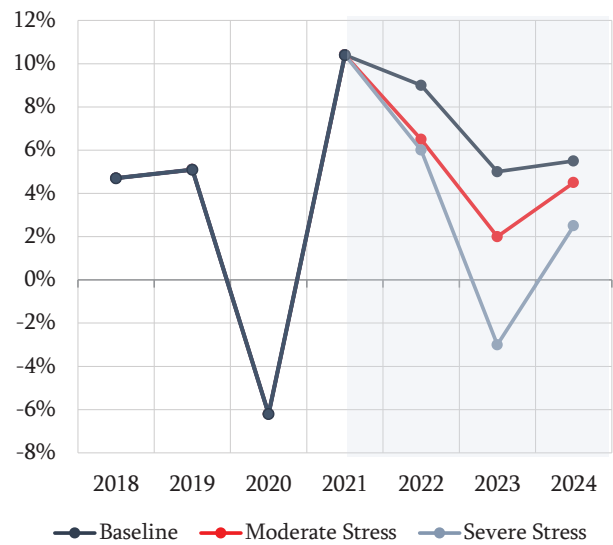
Under the moderate risk scenario, the disinflationary effect of weak demand is offset by the deterioration of production potential. However, a significant increase in the costs of imported goods and intermediate materials – a result of exchange rate depreciation and the overall increase in global prices – create inflationary pressure. As a result, inflation will remain above the target level during 2022 and 2023. Since inflation has remained above the target for a long period, and as the increased prices of commodity products traded on international markets are expected to be maintained, inflation will reach a higher level as compared to the baseline scenario. In response to inflationary expectations, monetary policy is tightened relative to the baseline scenario, and it remains tighter for longer – only to gradually ease 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 6.5 percentage points.

The severe risk scenario envisages the imposition of additional economic sanctions on Russia by leading economies and a further tightening of financial conditions in response to high global inflation. In this hypothetical scenario, the prolongation of the Russia-Ukraine war becomes a significant obstacle to the post-pandemic recovery of the global economy. Taking this into account, developed countries tighten sanctions against Russia, which further restricts trade and financial flows. Moreover, uncertainty grows regarding the duration of the war and its impact on the global economy. The higher prices observed in the wake of the pandemic will see an additional increase due to the war. As a result, increased inflation expectations are no longer perceived as being only temporary. The world's leading central banks respond to this event by sharply tightening their monetary policies. Against the backdrop of deteriorating expectations and high uncertainty, the reassessment of risks on the global financial market leads to a further tightening of financial conditions and a sharp decline in the value of investment assets.

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

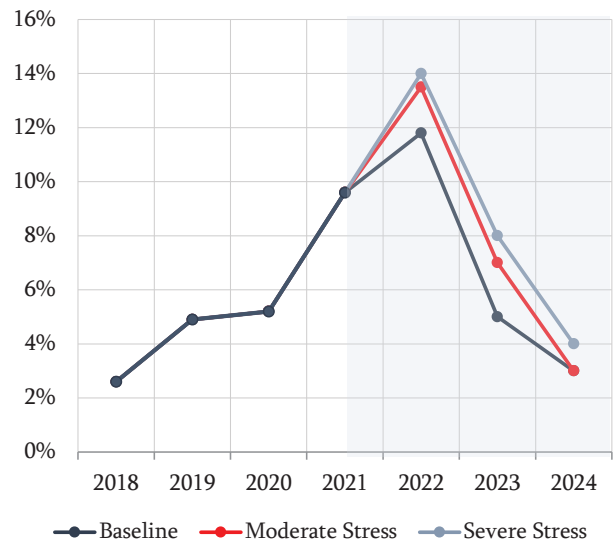
In this scenario, weak external demand is ac-

Figure III.24. Risk scenarios: annual real GDP growth (YoY)



Source: NBG staff estimates

Figure III.25. Risk scenarios: average annual CPI inflation



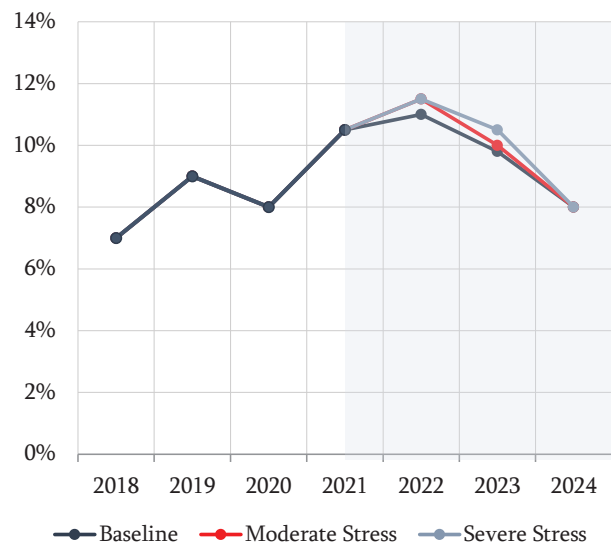
Source: NBG staff estimates

companied by a significant decrease in domestic demand, which is due to the sharply worsened expectations of both households and companies and the increased debt burden. Taking into account the sharply deteriorated financial conditions of borrowers and the increased burden of debt, the financial system suffers significant losses and sees a tightening credit conditions, which, in turn, causes an additional deterioration of the economy. As a result, the country's risk premium increases, which is reflected in capital outflows and the reduction of new investment inflows. The situation is aggravated by the depreciation of the GEL in the background of high dollarization. Furthermore, as a result of the additional sanctions imposed on Russia, inflows of remittances

are hindered and the positive dynamics that were recorded in the first half of 2022 are lost. The expected decrease in income and high uncertainty significantly reduces activity in the real estate market. However, real estate prices expressed in GEL continue to rise as a result of the weakening of the local currency and increased prices for construction materials. A period of prolonged and high uncertainty leads to a deterioration of the growth potential of the economy. Subsequently, in the post-crisis period, the economy will recover at a slow pace.

The disinflationary effect of reduced demand under the severe risk scenario is weaker as compared to the moderate risk scenario. The decrease in demand is accompanied by a greater deterioration of the economy’s growth potential due to a decline in workers’ professional skills. Due to the significant depreciation of the exchange rate, the contribution of the imported component of inflation and the growth of intermediate costs are higher. As a result, overall inflation increases compared to the moderate risk scenario. In order to moderate inflationary expectations, monetary policy remains in a tighter position for longer and its return to the neutral level proceeds at a relatively slow pace. In the severe risk scenario, the total drop in GDP growth compared to the baseline scenario is equal to 14 percentage points.

Figure III.26. Risk scenarios: annual average monetary policy rate



Source: NBG staff estimates

Table III.1. Macro-financial risk scenarios*

Variable \ Scenarios	Current value*	Baseline scenario			Moderate risk scenario			Severe risk scenario		
		2022	2023	2024	2022	2023	2024	2022	2023	2024
Fed Funds Rate	2.5%	+0.9 pp	+0.4 pp	-0.4 pp	+1.0 pp	+0.5 pp	-0.5 pp	+1.5 pp	+0.5 pp	-0.5 pp
ECB Policy Rate	0.75%	+1.0 pp	+0.25 pp	+0.0 pp	+1.0 pp	+0.5 pp	-0.25 pp	+1.25 pp	+1.0 pp	-0.5 pp
Country Risk Premium	4.5%	-1.0 pp	-1.0 pp	-0.5 pp	+0.0 pp	-0.5 pp	-0.5 pp	+0.0 pp	+0.5 pp	-1.0 pp
GEL/USD Nominal Exchange Rate	2.77	Appr. 0%	Appr. 0%	Appr. 0%	Depr. 10%	Depr. 10%	Appr. 5%	Depr. 15%	Depr. 20%	Appr. 5%
Nominal Effective Exchange Rate Index (1995=100)	331.3	Appr. 0%	Appr. 0%	Appr. 0%	Depr. 6%	Depr. 6%	Appr. 3%	Depr. 10%	Depr. 13%	Appr. 3%
Change in Real Estate Prices (in GEL, YoY)	8.2% (2021)	14.0%	7.5%	5.5%	13.5%	8.0%	5.0%	13.5%	6.5%	5.0%
Real GDP Growth (YoY)	10.4% (2021)	9.0%	5.0%	5.5%	6.5%	2.0%	4.5%	6.0%	-3.0%	2.5%
Unemployment Rate	20.6% (2021)	-2.1 pp	-1.0 pp	-0.0 pp	-1.1 pp	+0.5 pp	-1.0 pp	-0.6 pp	+2.0 pp	-1.0 pp
CPI Inflation (YoY)	9.6% (2021)	11.8%	5.0%	3.0%	13.5%	7.0%	3.0%	14.0%	8.0%	4.0%
Monetary Policy Rate**	11.0%	+0.0 pp	-1.2 pp	-1.8 pp	+0.5 pp	-1.5 pp	-2.0 pp	+0.5 pp	-1.0 pp	-2.5 pp

* The values under each scenario display the average change in the corresponding macro-financial indicators compared to the previous period. The numbers for 2022 show changes relative to the current values. The current values correspond to 31 July 2022, unless otherwise stated.

** The current value of the monetary policy rate reflects the Monetary Policy Committee's decision made on 3 August 2022. In the scenarios, the change in the monetary policy rate corresponds to the change in the average value of the rate in the given 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 part of the financial stability analysis toolkit. The main purpose of stress testing is to assess the resilience of banks in the event of adverse shocks. 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, limiting the duration of the stress, and contributing to faster economic recovery. It should be noted that stress tests provide an analysis of hypothetical risk scenarios and the results attained are thus conditional.

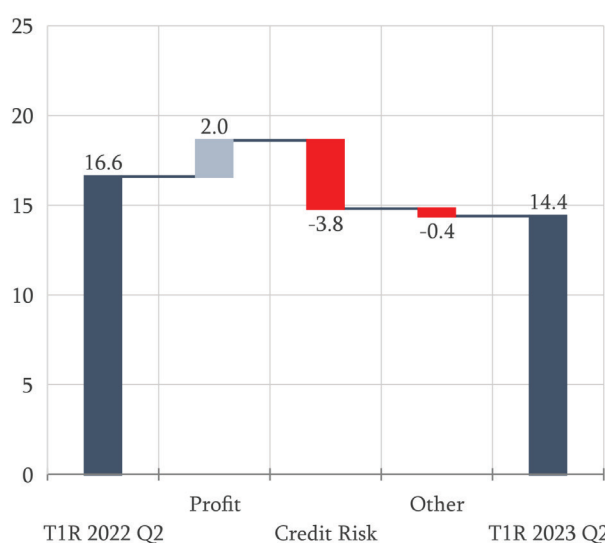
At the end of 2021, the NBG launched an interactive stress test web platform. This platform allows interested parties to choose a hypothetical stress scenario for each macroeconomic variable and to observe the dynamics of an individual commercial bank's capital ratio as well as that of the banking system as a whole.³⁶ The methodology of top-down stress testing is based on the framework that was developed with the support of the technical assistance provided by the International Monetary Fund in 2019-2020. A description of this methodology can be found on the NBG's website.³⁷

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 high growth of the real economy 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 around 18 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 Tier 1 capital ratio. Under the moderate scenario, the exchange rate fluctuation 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 capi-

tal adequacy ratio thus declines slightly to 16.4 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 exchange rate fluctuates considerably, the risk premium increases and, in response to the risk of deposit outflows, the interest margin compresses as a result of increased interest rates on deposits. Thereby, net profit declines and banks face sizeable credit losses. The revenue generated over the first year increases the capital coefficient by 2 percentage points, which is not enough to compensate for the -3.9 percentage points drop in the capital ratio caused by the credit losses (see Figure III.27). 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, at the end 2023, some banks would need additional capital to maintain the minimum Tier

Figure III.27. Decomposition of the change in the capital ratio of the banking sector in the severe risk scenario (%)



Source: NBG

36 See <https://nbg.gov.ge/en/page/interactive-stress-test>

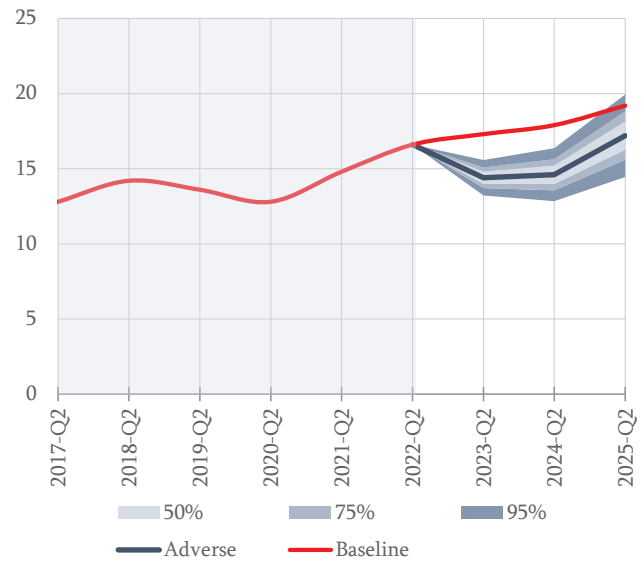
37 See <https://nbg.gov.ge/en/page/-top-down-stress-test>

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 2024, the capital adequacy of banks starts to gradually recover as a result of improved asset quality and stable operating profits (see Figure III.28).

According to “reverse stress testing”, the banking sector is able to mitigate an additional GEL 4.3 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, fully deplete. Considering the current level of capital adequacy, a 8.3 percent decline of capital buffers was analyzed, which equals credit losses of around GEL 4.3 billion. The non-performing loan ratio would need to be 4.4 times higher and to exceed 20 percent to obtain such losses. This loss could be attained in different ways, however, in aggregate, real economic losses in 2022-2023 would need to exceed those seen in 2020; in addition, there would have to be a 40 percent depreciation of the exchange rate and a significant rise of unemployment. It should be noted that reverse stress testing, similarly to the “top-down” stress test, 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 con-

Figure III.28. Capital adequacy under the baseline and severe risk scenarios (%)



Source: NBG

ducted 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 the supervisory process, 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 the next year.

IV. Financial Stability Policy Measures and Recommendations

The NBG maintains financial stability and supports the sound operation of the financial system in Georgia. With this central aim in mind, a number of macroprudential and microprudential policy measures were implemented in previous years. Due to the measures taken by the National Bank of Georgia before the pandemic and the financial stability policy implemented since the start of the pandemic and the subsequent Russia-Ukraine war, the financial sector remains resilient and continues smooth lending to the economy. The majority of banks have already recovered the capital buffers that were released during the pandemic and have met the threats related to regional geopolitical tensions with solid buffers. Against the backdrop of high economic growth and the appreciation of the domestic currency, the credit-to-GDP ratio remains below its long-term trend, although it is expected that credit growth will be in line with the nominal economic growth in 2023. Therefore, as there is no need to change the countercyclical buffer in the current period, the NBG has left it unchanged at 0 percent. The National Bank of Georgia continues to monitor the country's financial stability and works to support the sustainability of the financial system.

Due to the macroprudential and microprudential measures taken by the National Bank before and during the pandemic, as well as the financial stability policy implemented since the start of the Russia-Ukraine war, the financial sector remains resilient and continues smooth lending to the economy. Amid the measures taken by the National Bank, the financial sector has successfully overcome a rather severe phase of the shock caused by the pandemic. During 2021, the banking sector's asset quality, profitability, capital and liquidity indicators all improved, which allowed the majority of banks to recover, ahead of schedule, those buffers that had been released by the National Bank at the beginning of the pandemic. As of the first half of 2022, banks maintain healthy capital and liquidity buffers, while asset quality has improved compared to the previous year. The solid profitability of banks is driven by strong credit activity and small loan loss provisions. It should also be noted that the imposition of Liquidity Coverage (LCR) and Net Stable Funding (NSFR) ratios in previous years has further promoted the stability of banks' funding and improved liquidity buffers. Against the backdrop of improved financial indicators, the banking sector was able to face potential threats related to the Russia-Ukraine war with substantial buffers. Aside from that, only one bank in Georgia, a subsidiary of a Russian bank, was directly affected by the sanctions imposed in response to the war. This problem was soon resolved by the sale of parts of its assets and liabilities to other banks. The stability of the financial sector was further proven by the results of the stress test released in December 2021, according to which the banking

sector remains solvent even under severe and extreme risk scenarios.

The Financial Stability Committee of the National Bank of Georgia has left the countercyclical capital buffer unchanged at 0 percent. The annual growth rate of the credit portfolio in June 2022, excluding the exchange rate effect, amounted to 19 percent, which was mainly driven by the growth of business loans; however, the increasing dynamics of consumer loans is also noteworthy. The credit-to-GDP ratio remained above its long-term trend in 2021; however, due to the high economic growth and the appreciation of local currency, the credit-to-GDP gap decreased significantly and, in the second quarter of 2022, the credit-to-GDP ratio slightly lagged behind its long-term trend. Despite the recent trend, the existing level of Georgia's credit-to-GDP ratio remains high in comparison to that of peer countries. Until the end of 2022, the credit-to-GDP ratio is expected to remain below its trend, while credit growth in 2023 will be in line with the nominal economic growth. Therefore, there is no need to change the countercyclical buffer in the current period.

Dollarization has declined significantly amid measures taken by the National Bank; however, it remains a source of structural risk in the economy and poses a challenge for the financial sector. Foreign currency-denominated loans are associated with exchange rate and interest rate risks. Particularly noteworthy is the exchange rate risk in the face of the high share of foreign currency loans and increased exchange rate fluctuations. This risk is aggravated by increased uncertainty regarding the

regional macroeconomic environment in light of the Russia-Ukraine war and the sanctions imposed in its wake. This is accompanied by increased interest rates on both the US dollar and euro in response to global inflation, which makes interest rate risk more noteworthy in the medium term. Against this background, financial dollarization is a major challenge for non-hedged borrowers and for the financial system in general.

The National Bank continues to take macroprudential and microprudential measures to mitigate the structural risks caused by high levels of financial dollarization. Those measures include a change in the methodology for calculating the Currency Induced Credit Risk (CICR) buffer and linking it to the level of credit portfolio dollarization, which creates an incentive for banks to support the larization of loans. According to the new methodology, the CICR will be determined based on the level of loan dollarization instead of the previous 75percent risk weight. If dollarization is 40 percent or below, the weight will be set at 40percent and each 1 percentage point (pp) increase in dollarization will result in a rise of the risk weight by 3 pp, up to 100%. This change was activated on 1 January 2022 and supports the larization process. Along with the increase in larization, the capital buffer requirement will soften over time as the systemic risk stemming from the exchange rate decreases. To further mitigate structural risks stemming from financial dollarization, the maximum maturity for foreign currency mortgage loans was decreased from 15 to 10 years. In the second half of 2021, along with the economic recovery, the tightening of monetary policy, and the appreciation of the national currency, the growth of foreign currency mortgage loans accelerated. Because most borrowers are unhedged, and a major part of mortgage loans have floating interest rates, in addition to exchange rate risk these loans are subject to interest rate risk. Considering the size of the portfolio, the above-mentioned vulnerability contributes to the accumulation of systemic risks in the financial sector. In order to mitigate such risks, the National Bank reduced the maximum maturity for foreign currency mortgage loans to 10 years.

To support borrower's creditworthiness, the National Bank recalibrated particular requirements of the responsible lending regulation. Payment to Income (PTI) requirement has been set for borrowers in relation to their incomes. According to the previous version of the regulation, PTI was set differently for individuals with a monthly income of below and above GEL 1,000. Upon the increase in a set of nominal economic indicators, the Financial Stability Committee

decided to increase this limit up to 1,500 GEL. Aside from that, an additional requirement has been introduced: starting from 1 May 2022, commercial banks have been required to take into account a 3-percentage-point interest rate shock when assessing a borrower's creditworthiness. Each of these changes support the improvement of borrowers' creditworthiness and, consequently, contribute to financial stability.

The National Bank continues to efficiently implement its supervisory mandate and has published an updated version of its supervisory strategy for 2022. The first supervisory strategy document was published in 2020, with its first update published in 2021. The supervisory strategy covers the strategic priorities for a period of three years (2020-2022). 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 the 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. It should be noted that the National Bank has already started working on a new supervisory strategy document, which will include new strategic priorities and relevant tasks for the next three years (2023-2025). The National Bank will lead the process of developing this new strategy with a greater involvement of the private and civil sectors.

With the aim of supporting sustainable finance development, the NBG continues the development of a sustainable finance framework. In July 2022, the National Bank of Georgia, in cooperation with the German Sparkassenstiftung for International Cooperation (DSIK), prepared a report on the "Climate-related Risk Radar for Georgian Economic Sectors and its Possible Application for the Financial Sector". The report developed a climate risk scorecard for Georgian economic sectors and assessed the financial sector's exposure to those sectors identified as being at risk. In addition, in August 2022, the National Bank of Georgia approved the Sustainable Finance Taxonomy and the related Regulation on Loan Classification and Reporting according to the Sustainable Finance Taxonomy. The regulation sets the requirement for commercial banks to comply with the taxonomy criteria when classifying loans as green, social and sustainable; it also imposes reporting requirements on banks according to the taxonomy. An overview of these and other sustainable finance actions and plans are pre-

sented in the NBG's Sustainable Finance Report 2022.

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, with relevant situation-based calibration, to reduce the impact of potential threats, stemming from the complex geopolitical situation in the region, on the country's economy and to ensure financial stability. It should also be noted that the impact of the pandemic-related shock has already been largely reflected

on the financial sector. However, high uncertainty remains with respect to the duration of the Russia-Ukraine war, the possible tightening of sanctions against Russia, and China's anti-COVID policies and their impact on the economy and the financial sector. 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 a range of macroprudential and microprudential instruments (see Table IV.1). Furthermore, the non-banking sector, which must also meet prudential requirements, remains resilient.

Table IV.1. Macroprudential measures of the NBG

Instrument	Rate	From
Counter-cyclical buffer	0%	18.12.2017
Systemic Buffers JSC "TBC Bank" JSC "Bank of Georgia" JSC "Liberty Bank"	2.5% 2.5% 1.5%	31.12.2021
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% 1.4% - 5.2% 3.3% 2.9% - 6.9% 5% 3.1% - 15.7%	As of 30.06.2022 As of 30.06.2022 As of 30.06.2022 As of 30.06.2022 As of 30.06.2022 As of 30.06.2022
Total Regulatory Capital Requirements (including buffers) Common Equity Tier 1 (CET1) requirements (including buffers)	11.7% - 23.8% 6.1% - 12.1%	As of 30.06.2022
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 one 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 ³⁸	22.12.2018

³⁸ This restriction is imposed by the Parliament of Georgia.



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