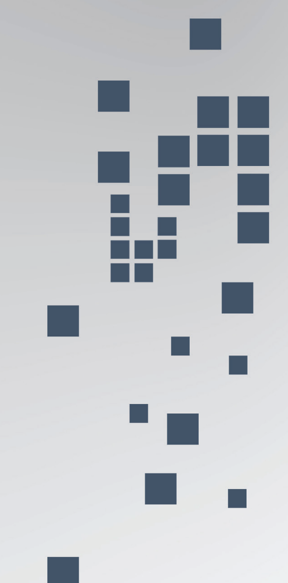
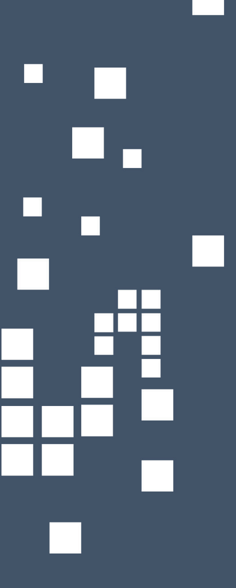


Financial Stability Report 2020



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 medium- to long-term structural features of the financial sector and the aspects of the Georgian economy that are of importance for financial stability. It also analyses the resilience of the domestic financial system and reviews the policies and measures undertaken by the Financial Stability Committee (FSC) in order to support financial stability.

The financial system is considered stable when it can provide crucial services to market participants in both good and bad times. It is the cornerstone for the sustainable development of the economy. As per its mandate as defined in the Organic Law of Georgia, the National Bank of Georgia continuously aims to ensure a safe and sound financial system.

This analysis draws on data available up to 30 June 2020 unless otherwise stated.

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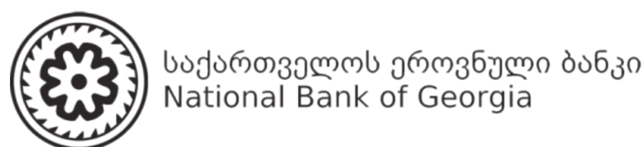

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Executive Summary

The Georgian financial system faced the COVID-19 pandemic well prepared. Its and it maintains resilience was ensured as a result of the financial stability policy measures implemented over recent years. The additional capital requirements imposed by the NBG in previous periods and the profits acquired by commercial banks have enabled them to accumulate sufficient capital buffers to tackle stressful situations. In the pre-crisis period, the NBG implemented a number of macroprudential measures to reduce the high level of household indebtedness and loan dollarization. These measures decreased vulnerabilities in the non-financial sector and built up the resilience of the financial system. In addition, in previous years, the NBG imposed liquidity coverage and net stable funding ratios that promoted market liquidity and the stability of banks' funding. As a result, the Georgian financial system is resilient, and has accumulated sufficient liquidity and capital buffers to mitigate the shocks caused by the COVID-19 pandemic. Microfinance organizations, which became subject to prudential requirements in recent years, also remain resilient. Although the share of non-performing loans is expected to increase as a consequence of the pandemic, commercial banks have made loan loss provisions in advance. Consequently, the banking system has sufficient resources to continue providing loans to the economy without any difficulties.

At the same time, financial stability risks have increased in the wake of the global crisis caused by the COVID-19 pandemic. Georgia is characterized by a number of structural vulnerabilities. Coupled with the COVID-19-related recession, these imbalances have revealed the economy's vulnerability to the external sector. Georgia is a small open economy with a high level of dollarization, a current account deficit and increasing dependence on international financial inflows; all of which make the country's financial system vulnerable to global economic and financial trends. The COVID-19-induced global economic crisis and, more specifically, the significant decline of economic activity and financial inflows, have increased risk premia. Moreover, the uncertainty surrounding the spread and duration of the pandemic has increased Georgia's vulnerability to external developments. Consequently, risks to financial stability have increased.

The COVID-19 pandemic and the measures implemented to avoid its rapid spread have increased the financial vulnerability of the household sector. The shock caused by the pandemic has significantly hampered economic activity and has led to a decline in employment and income. This has caused significant financial distress for households. However, it should be noted that the introduction of responsible lending regulations by the NBG has reduced over-indebtedness and households thus entered the current recession in a better financial condition than they would have otherwise. In addition, as a result of recent legislative changes and macroprudential measures implemented by the NBG, the vulnerability of the household sector towards exchange rate fluctuations has significantly decreased. However, the currency risk of non-hedged borrowers remains an important challenge. It should be noted that the financial health of the household sector also matters for the financial stability of the economy as a whole. Programs implemented to support households, including the loan deferral and government assistance programs, are expected to soften the impact of the recession on households' financial conditions and thereby support their ability to service debts – all of which will positively affect the financial sector's resilience.

The COVID-19 pandemic has had significant adverse effects on non-financial companies, causing an increase in risks in terms of their financial soundness. The measures undertaken to contain the spread of the virus, growing uncertain-

ty and diminishing demand have all increased risks related to the financial resilience of the corporate sector. Although the overall corporate debt remains at a sustainable level, companies are vulnerable to the prevailing risks due to their sizable exposure to foreign funding sources, their significant share of short-term debt and high liability dollarization. The recession caused by the pandemic and the materialization of existing vulnerabilities will result in increased credit risk in the corporate sector. The adverse consequences caused by the increased credit risk have a considerable bearing on the financial sector and also spill over to households. The pandemic is deemed to have had a particularly strong negative impact on small- and medium-sized enterprises, procyclical industries, and external demand-oriented businesses. In order for companies to maintain access to funding sources, which is vital for their continuous functioning and their continued provision of employment, targeted anti-crisis state programs are of crucial importance.

The shock caused by the COVID-19 pandemic has also increased risks in the real estate sector. Amid the recession, a close monitoring the property market is particularly important from a financial stability perspective. Due to reduced incomes and increased uncertainty, demand for residential real estate has significantly decreased. Moreover, the drastic reduction in tourist flows, which decreases the attractiveness of property as an investment asset, has had an additional negative effect on demand, especially in tourism-heavy regions. Given that the supply of residential real estate had increased prior to the current crisis, the decreased demand in the current period increases the likelihood of the realization of oversupply risk. Real estate prices are decreasing due to weak demand and increased uncertainty in the market. However, due to the stability of the real estate market before the current crisis, prices will not fall as sharply as they did after the global financial crisis of 2008. Measures taken by the government will help the market mitigate the negative effects of the crisis and thereby lower the risks to financial stability.

In order to reduce the negative impact of the COVID-19 pandemic on the financial sector and to stimulate the economy, the NBG has taken a number of macroprudential and microprudential measures. The National Bank of Georgia has developed a temporary supervisory plan[1], which implies use of the capital and liquidity buffers of the banking sector during periods of financial stress. These enable banks to absorb potential losses and to continue business as usual. The capital requirements of commercial banks have been lowered, resulting in the elimination of the capital conservation buffer and a portion of the Pillar 2 buffers. At the same time, banks are able to use foreign currency buffers for liquidity management in GEL and, by so doing, can maintain the total liquidity requirement. In order to further ensure that the banking system has sufficient liquidity, the NBG activated swap operations and has launched a new liquidity instrument to support SME financing. By use of this instrument, commercial banks will have the opportunity to receive liquidity support from the NBG against collateral of the SME loan portfolio. This tool can also be used by microfinance organizations, so the SME sector will be able to attract funding easily. Moreover, in order to support liquidity in foreign currency in the FX market, the NBG has activated a new rule-based mechanism of interventions.

The NBG's macroprudential efforts have been assisted by the government's actions. The anti-crisis plan developed by the government provides support for those sectors that had previously made high contributions to economic growth and employment. In particular, the government has developed an Anti-Crisis Plan on Tourism Revival, with a total budget of 200 million GEL.[2] Significant funds have also been allocated to supporting agriculture. The role of the agricultural sector in employment is particularly large and, although the share of total loans to the sector does not exceed 3.4%, it remains important due to its contribution to employment. The real estate development sector is a rapidly grow-

1 See https://www.nbg.gov.ge/index.php?m=754&lng=eng

2 See http://gov.ge/files/288_76050_775262_final_Tourismpresentation.pdf

ing sector of the Georgian economy and also accounts for a significant share of the loan portfolio of the financial sector. Thus, working jointly with the National Bank and the private sector, the Georgian government has implemented measures to support the real estate development sector.

The efforts to improve the resilience of the financial system are a continuous work in progress. This is being achieved through a combination of macroprudential measures, focused on the banking system as a whole, and microprudential measures aimed at strengthening the position of individual financial institutions. The National Bank of Georgia continues monitoring the country's financial stability and will use all available instruments at its disposal to minimize the impact of the pandemic on the financial system. It should also be noted that significant uncertainty remains regarding how long the pandemic will last and concerning its impact on the economic and financial sectors. However, the current forecast suggests that the impact of the shock on the financial sector has already been largely reflected. The National Bank continues to actively work to promote a sound and stable financial system.

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

The Main Risks to Financial Stability	Magnitude/Change
Uncertainty associated with the duration and economic impact of the COVID-19 pandemic. In the event of the continued spread of the pandemic and the delayed production of an effective antivirus, virus containment measures and social distancing requirements will remain in place for an indefinite period. Subsequently, consumer and business sentiment will deteriorate and further depress demand. Moreover, given the continuation of containment measures, production costs will remain high. This will cause a deeper and longer global recession. Given the significant exposure to the external sector, a severe global downturn will adversely affect the domestic economy.	
An increase in the country risk premium and its repercussions on the exchange rate and foreign currency debt burden. If the epidemiological situation in the region worsens, expectations regarding economic recovery will be revised downward. This may cause a further increase in the country risk premium and may lead to capital outflows, which will put depreciation pressure on the local currency. As a result, both the foreign currency debt burden and exchange rate-induced inflation will increase.	
Greater-than-anticipated adverse impacts of weaker external demand and continued virus containment measures on tourism and adjacent industries. If the virus containment measures remain in place for an indefinite period, the recovery of international tourism flows will be delayed for longer. Subsequently, tourism and adjacent industries characterized by high labor intensity will face extraordinarily weak demand for an indefinite period. This will lead, on the one hand, to a significant deterioration of the current account and, on the other, to increased unemployment and the declining financial health of households.	
A drop in real estate prices due to weak demand and its adverse impact on the financial sector. Real estate prices may decrease because of weak demand accompanying the crisis. If expectations regarding the economic recovery are revised downward, the probability of an abrupt drop in real estate prices will increase. This will have a direct adverse impact on the real estate sector. In addition, a possible drop in real estate prices poses risks to the resilience of the financial sector as this will induce a deterioration of the credit quality of loans for which real estate serves as collateral.	

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

≥1	≥2	≥3	≥4	≥5	≥6

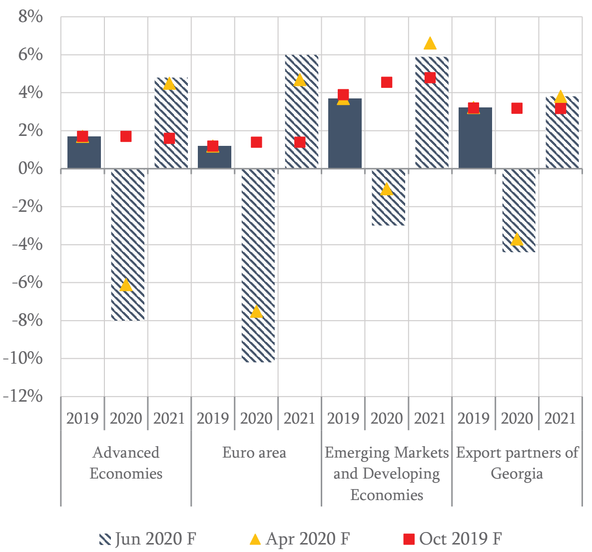
I. Macro-Financial Environment and Outlook

In the wake of the COVID-19 pandemic, global economic growth has slowed significantly. The recession caused by the pandemic is fundamentally different from earlier instances of economic decline. Its impact on economic activity is transmitted through several channels simultaneously. On top of that, there is great uncertainty surrounding the further development of the pandemic and, consequently, on economic forecasts. Downside risks are particularly pronounced in the region due to the spread of the virus, geopolitical tensions and significant reductions in oil prices. Each of these factors pose risks to the domestic macro-financial environment.

The COVID-19 pandemic and restrictions introduced to prevent the rapid spread of the virus have led to a significant slowdown in global economic growth. The disruption of global supply chains due to the pandemic, the suspension of production and services, and the introduction of self-isolation and social distancing requirements have all led to an immediate and large-scale drop in demand occurring alongside supply disruptions, which has had a major impact on the economies of almost every country in the world. The IMF projects global growth of -4.9% in 2020, which is 1.9 percentage points (pp) lower than the forecast of April 2020 and 8.3 pp lower than the forecast of October 2019.[3]

The great uncertainty surrounding the scale of COVID-19's impact on the economy has led to a revision of the forecasts. The negative impact of the COVID-19 pandemic on the economy in the first half of 2020 turned out to be much larger than had been anticipated in the April forecast. On top of that, according to the June 2020 World Economic Outlook, the recovery of the global economy in the coming years will be slower than was initially expected in the first half of the year. Forecasts have been significantly revised downward for both developed as well as developing and emerging economies (see Figure I.1).

Figure I.1. Economic growth in selected group of economies[4]



Source: WEO database

Uncertainties remain high surrounding both the impact of restrictions imposed on the economy to prevent the spread of virus, and the time it will take for the economy to recover. Consequently, the uncertainty surrounding economic forecasts is higher than usual. Due to the unique nature of the shock, the current forecast may be significantly revised. The current projections are based on assumptions about the spread of the pandemic and the development of a vaccine. The economies of those countries with a declining rate of infection are expected to recover at a slower pace in the second half of 2020, reflecting reduced productivity due to social distancing and tighter safety and health standards at workplaces. Meanwhile, in those countries where the virus continues to spread at a high rate, restrictions on economic activity are assumed to be sustained. The current forecast also considers that financial conditions will remain at the current level. Therefore, the uncertainty surrounding the time it will take for the world economy to stabilize is significant – this depends on the spread of the virus, the duration of the restrictions and prohibitions associated with it, and the scale and effectiveness of measures introduced to support economic growth and health care.

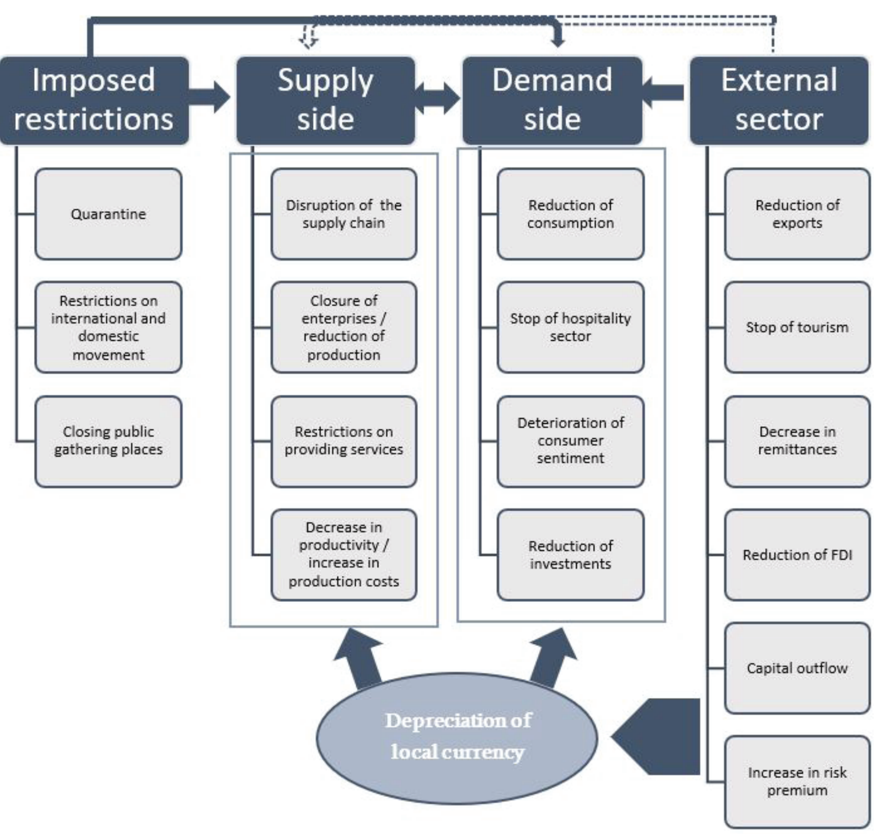
3 See World Economic Outlook (WEO), June 2020, IMF.

4 Georgia's export partners: the top seven countries with the largest shares in Georgia's export volume.

The recession caused by the COVID-19 pandemic is significantly different from earlier crises. Unlike previous crises, the current recession has hit virtually every country in the world. Economies have come to a sudden stop and the decline has been more severe than that during the global financial crisis of 2007-2008. Moreover, the onset of the current recession is not related to the real or financial sectors of the economy. Instead, it is the result of global and domestic restrictions and measures taken to prevent the rapid spread of the virus. Those restrictions initially affected the real sector of the economy, which also put the financial sector at risk. In contrast, the crisis of 2007-2008 started in the financial sector and then got transmitted to the real economy. These circumstances make the current crisis unique and it thus requires different fiscal, monetary and macroprudential policies. It should also be noted that the policies implemented by central banks and governments to address the existing challenges have been quicker and more robust than they were during the global financial crisis.

The economic effects of the pandemic are transmitted to economic activity through several channels simultaneously. Assessing the impact of the COVID-19 virus on the economy is difficult due to the unique nature of the existing shock. COVID-19 is a purely exogenous shock to the economy, having a significant negative impact on both supply and demand. In order to prevent the spread of the virus, it became necessary to impose a number of restrictions that have had a negative impact on economic activity. These measures include declaring a quarantine, restricting international and domestic travel, and limiting public gatherings. These restrictions led to a disruption of the supply chain, the suspension of certain enterprises and an interruption of services. The existing shock was more like a supply shock at the initial stages; however, with the spread of the pandemic, there has been a large drop in demand in various sectors of the economy. On top of that, in small open economies, the external factors caused by the pandemic have played an important role. In these kinds of countries, a large drop was observed in exports, remittances and foreign direct investment, which was accompanied by capital outflows and an increase of countries' risk premia. The tourism sector, which is an important source of foreign exchange inflows for many countries, has also come to a sudden stop. These external factors

Figure I.2. The economic effects of COVID 19 in countries is small open economies



Source: OECD, NBG

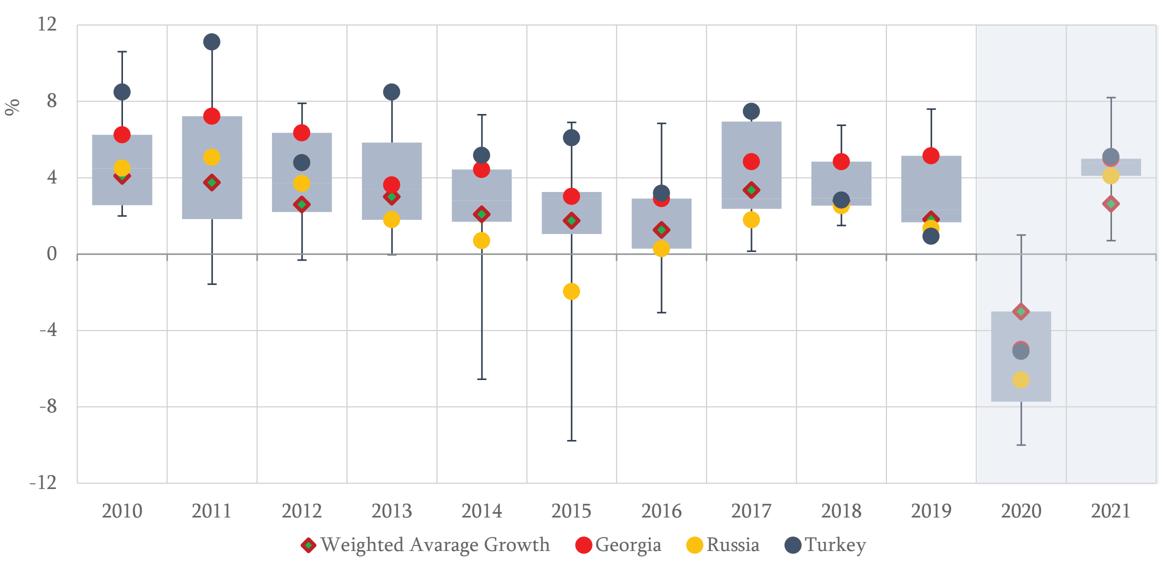
had a direct impact on the demand side, but also indirectly affected both the demand and supply sides through the depreciation of local currencies (see Figure I.2). If the negative economic consequences of the pandemic persist for a long time and lead to a long-term growth in unemployment and mass bankruptcies of businesses, it is possible that COVID-19 will leave long-term negative effects on the world economy.

The effect of the COVID-19 pandemic has been especially severe for developing and emerging economies. At the same time, the economic situation in the region has further deteriorated due to a significant reduction in oil prices. In light of existing structural challenges, developing and emerging economies have found themselves particularly vulnerable to the pandemic. These types of countries have experienced multiple shocks: a termination of local economic activities, capital outflows, significant reductions in exports and lower remittances. Developing countries face this shock with more limited fiscal capacity. Weak health care systems and large informal sectors have also proved to be significant challenges for implementing effective policies in many countries.

At the same time, the sharp decline in oil prices was an additional source of negative shock for the countries of the region. In the first quarter of 2020, in light of a large drop in oil prices and the coronavirus pandemic, the situation deteriorated in Russia, where exports fell significantly. The worsening of the situation in Russia also had a negative impact on the Armenian economy, which has been hit hard by declining investment and lower exports due to the pandemic. The fall in oil prices also had a negative impact on Azerbaijan's foreign sector. Nevertheless, in the first quarter of the year, the non-oil sector of Azerbaijan remained highly active. However, with the spread of the virus and restrictions being imposed on economic activity, this growth slowed in the second quarter. After a significant drop in April, oil prices rose again and the market became relatively stable. According to the IMF, oil prices will continue to rise in the second half of the year, but will remain lower compared to 2019 levels.

The global pandemic and the declared state of emergency also put a lot of pressure on the Turkish economy. Nevertheless, the first quarter of 2020 was characterized by a slight recovery in economic activity and an improvement in business sentiment. However, this situation subsequently changed significantly due to the COVID-19 pandemic. The manufacturing sector deteriorated, consumer sentiment worsened and spending declined. Business sentiment has also deteriorated significantly. At the same time, investments are still at a significantly reduced level, the trade balance has worsened and inflationary pressures remain high amid the depreciation of the lira. The International Monetary Fund projects real economic growth in Turkey in 2020 to be -5% (see Figure I.3).

Figure I.3. Growth distribution of the main trading partners of georgia

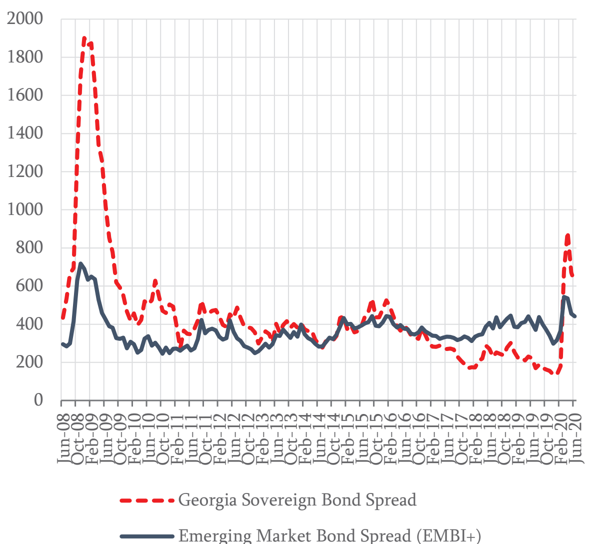


Source: WEO; NBG staff calculations

The stress placed on financial markets increased significantly at the beginning of the year due to the pandemic, but global financial conditions eased in May and June. With the spread of COVID-19, investor risk appetite has declined worldwide, resulting in large capital outflows from developing and emerging economies. This has led to the depreciation of local currencies and increased exchange rate fluctuations. In addition, sovereign yield and country risk premia increased (see Figure I.4). In March alone, about 80 billion USD of capital flowed out of emerging economies – a record number for monthly capital outflow.[5] However, the sharply tightened global financial conditions observed in March eased significantly in May and June. Investor sentiment towards emerging markets has also improved. Moreover, the easing of fiscal, monetary and macroprudential policies to support economic growth around the world has significantly contributed to improving sentiment in global markets. The reduction of stress in financial markets was accompanied by increased investor optimism about the rapid recovery of the economy, which was partially due to the removal of restrictions on economic activity. However, it should be noted that the easing of financial conditions at this rate may reflect excessive optimism about the prospects of the real economy. Consequently, if expectations in financial markets are revised and the risk appetites of investors fall once again, then the process of economic recovery may be jeopardized.

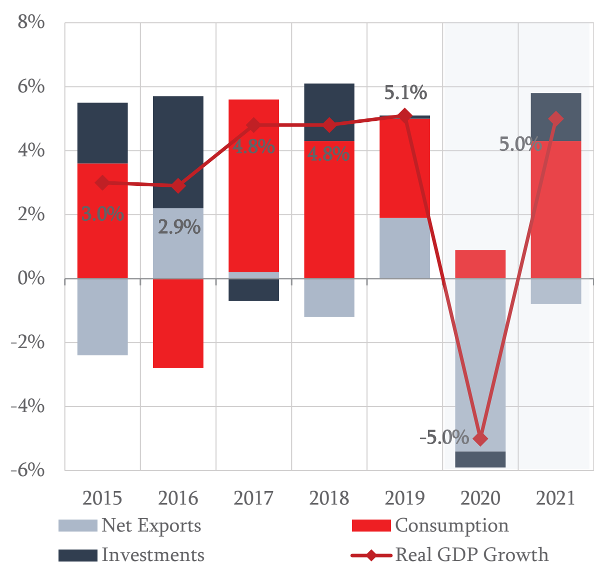
According to the economic forecasts, economic activity in Georgia in 2020 will drop significantly. According to the current forecast[7], real GDP growth in Georgia in 2020 will be -5%, which is mainly a consequence of declining net exports and lower investment (see Figure I.5). Restrictions imposed to avoid the rapid spread of the virus have had a negative impact on economic activity. The tourism sector has suffered substantially. This situation has been further worsened by the second wave of the virus that has started in many different countries and the continued uncertainty surrounding the time it will take to create a vaccine. Given these circumstances, it is likely that domestic restrictions and the strict regulations imposed on travel between countries will be prolonged, which will further harm the tourism sector. Due to the global situation and locally imposed restrictions, export earnings, remittances and inflows of foreign direct investment will all decrease in Georgia in 2020. However, the vast fiscal stimulus measures planned in partnership with international financial institutions will partially offset the effects of the severe shock and will contribute to the rapid recovery of the economy in the post-crisis period. It should, however, be noted that, as is the case with the global economic forecast, Georgia's economic forecasts are characterized by a high level of uncertainty.

Figure I.4. Sovereign bond spread[6] (basis points)



Source: Bloomberg Database

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



Source: NBG

5 See Global Financial Stability Report, June 2020. https://www.imf.org/en/Publications/GFSR/Issues/2020/06/25/global-financial-stability-report-june-2020-update

6 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.

7 For a more detailed forecast, see the NBG's Monetary Policy Report of August 2020: https://www.nbg.gov.ge/index.php?m=349.&lng=eng

Box 1. Economic crises and the policy of the National Bank of Georgia

National economies, including Georgia, repeatedly face challenges and crises. Adopting the correct macroeconomic policy plays an important role in overcoming these with minimal losses. The current century has been marked by two large crises: that of 2008-2009 and 2020. Although their causes are different, the economic downturns in both cases were large and global. In Georgia, although both crises resulted in significant economic downturns, their impact on various macroeconomic indicators was different, and thus required different macroeconomic policy responses. It is interesting to compare these two crises in Georgia, to assess the economic environment, the challenges these crises brought about and the macroeconomic policy response.

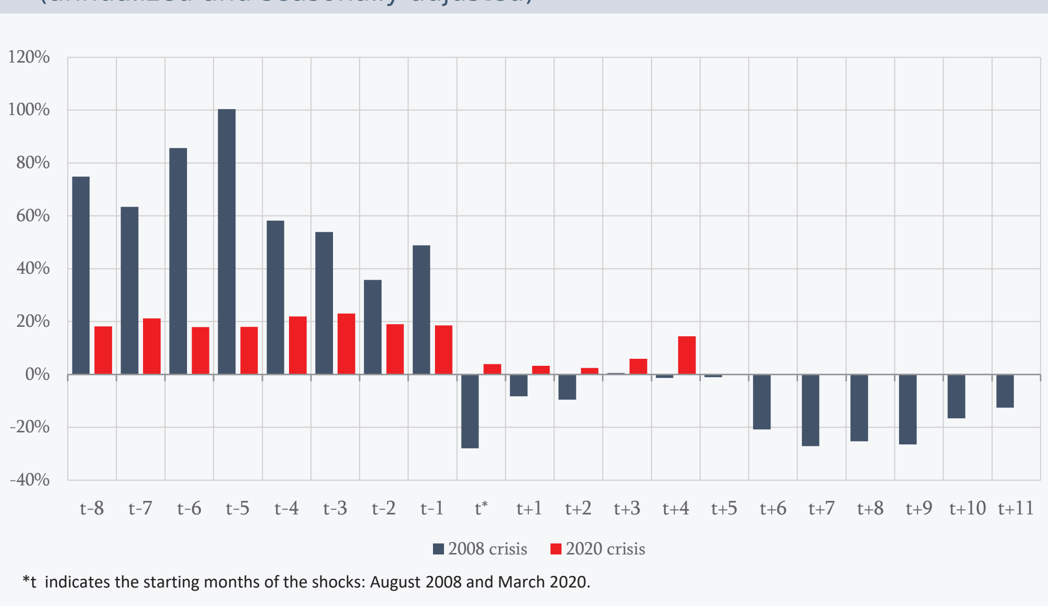
In 2008, Georgia faced a double crisis. In the backdrop of the global recession and the war with Russia, external demand and the investment climate for Georgia significantly deteriorated. This was reflected in reduced foreign exchange inflows, including proceeds from exports, foreign direct investment, and remittances. Under the deteriorated balance of payments, the lack of inflow was partially offset by the financial assistance received from international donors. When the government receives foreign currency financing, this assistance is accumulated in the National Bank of Georgia's international reserves, bypassing the foreign exchange market. During such times, it is important for the NBG to ensure that part of these foreign exchange inflows are supplied to the market through foreign exchange interventions. Therefore, from July 2008 to the end of 2009, the NBG's net foreign exchange sales amounted to 933 million USD.

Despite these interventions, from July 2008 to the end of 2009, amid declining external inflows, the GEL/USD exchange rate depreciated by a cumulative 20%. However, as the dollar strengthened globally during this period, the nominal effective exchange rate of the lari appreciated by 1%. The dynamics of inflation in this period are also interesting. Inflation was in the double-digit range in the first half of 2008, reaching 12.8% in August. After the events of August 2008 and the development of the global financial crisis, inflation began to decline sharply, falling to 5.5% by the end of 2008 and to 3.0% in December 2009. Despite the significant depreciation against the US dollar, the decline in inflation was due to several factors. As the dollar also strengthened against other currencies, the lari was thus stable against the currencies of Georgia's trading partners, which weakened the inflationary pressure from the devaluation. At the same time, the reduction of aggregate demand created significant downward pressure on inflation. This environment prompted a rapid easing of monetary policy.

However, at that time the NBG did not have sufficiently developed instruments to generate strong monetary stimulus. Even though from August 2008 to the end of 2009 the policy rate was reduced from 12% to 5%, this did not have a significant impact on lending, as the monetary policy transmission mechanism was weak at that time. In addition, liquidity management tools were also underdeveloped and, as a result, during the crisis the necessary liquidity was not supplied to the banking system. This increased liquidity risks and forced banks to reduce lending even more sharply. All of this was ultimately reflected in a significant decline in lending to the economy. Loans had been growing at a high pace in the first half of 2008, but the annualized monthly growth of loans in the second half of 2008 fell to -7%, while in 2009 the loan portfolio experienced a 14% annual decline. Such a dramatic weakening of credit activity put additional pressure on both the shrinking economy and the rising unemployment level.

In contrast to 2008, in 2019, the annualized monthly growth of loans was within 20% on average. Since the onset of the COVID-19 pandemic, lending growth has slowed to 3%; however, lending activity already started to increase in July and the annualized monthly loan growth rate reached 13% (see Figure B1.1).

Figure B1.1. Monthly growth of loans excluding the exchange rate effect (annualized and seasonally adjusted)



Source: National Bank of Georgia.

It is interesting to reflect on both the initial condition of the Georgian economy at the start of the pandemic and the impact that COVID-19 has had on the economy in 2020. First of all, it should be noted that the Georgian economy was still in the process of overcoming the negative consequences of the summer of 2019 ban on flights from Russia when the new challenge arose. The shock of the summer of 2019 in combination with the subsequent pandemic significantly worsened Georgia's balance of payments. The current shock is much stronger than that of 2008 as a result of the increased role that tourism currently has in the Georgian economy and the greater extent of the global recession expected in 2020. Consequently, the shortfall of foreign inflows has been higher, which has also been reflected on the foreign exchange market.

However, the financial support that Georgia receives from international financial institutions should also be taken into account. The situation was similar in 2009, when Georgia received significant foreign currency aid that was subsequently supplied to the market by the NBG through FX interventions. In 2020, as in 2009, the increased budget deficit is financed by external liabilities, which end up in the international reserves of the NBG, bypassing the foreign exchange market. The NBG actively uses foreign exchange auctions to supply this resource to the market. This is made possible by the high net inflows of the government, along with the buffers established as a result of the international reserve accumulation policy conducted in previous years. In January-August 2020, the NBG supplied 341 million USD to the market.

In terms of the inflationary environment, Georgia met the 2020 pandemic with higher-than-target (albeit declining) inflation, which is related to the depreciation of the nominal effective exchange rate in the summer of 2019. While many countries around the world have resorted to aggressive expansionary monetary policies in response to the crisis, more caution was needed in the case of Georgia due to high inflation. The NBG thus began to phase out its tighter monetary policy gradually. In March-August 2020, the rate fell by a total of 1 percentage point, from 9% to 8%. This was due to the increased risks of inflation expectations and the persistence of the depreciated exchange rate. Although the 20% depreciation of the GEL/USD exchange rate during the 2008-2009 crisis was greater than the 11% seen during the 2020 shock, the exchange rate transmission to inflation was stronger in 2020. The latter is related to the change in the nominal effective exchange rate. In April 2020, when annual inflation peaked at 6.9%, the annual depreciation of the nominal effective exchange rate reached 9%. In addition, the measures enacted to prevent the spread of the pandemic have increased the unit costs of production,

which puts additional pressure on inflation. However, it should be noted that, as in 2008-2009, the expectation of weak aggregate demand, both domestic and foreign, determines the medium-term dynamics of inflation. As a result, a trend of declining annual inflation was evident from May 2020, which fell to 4.8% in August. According to current forecasts, inflation is expected to continue to decline in the coming months.

It should be emphasized that today, unlike in 2008, the NBG's monetary policy framework is significantly developed, which allows it to reduce the negative impact of the global shock on the Georgian economy by easing monetary policy. Using monetary policy instruments and operating in line with best international practice, the NBG ensures an uninterrupted supply of necessary liquidity to the financial system. This is important to ensure the smooth running of financial intermediation and to avoid a significant drop in lending. As a result of the measures taken, the annual growth of loans was maintained during the pandemic. In July, the annual growth of the loan portfolio was 13% (excluding the exchange rate effect), which has a positive effect on economic activity.

Along with monetary policy, the macroprudential framework was also significantly improved by taking into account the experience of 2008. Prudential buffers and the flexibility of using instruments counter-cyclically have increased, thereby enabling the NBG to respond immediately to challenges and to free up capital and liquidity for banks. The crisis of 2008-2009 also emphasized how critical it is for the financial sector to be constantly ready to counter shocks, otherwise, the system itself might become a source of stress aggravation. With this lesson in mind, and due to the enactment of responsible lending, de-dollarization and other measures developed in recent years, the growth of loans reached a sustainable level and the quality of assets materially improved. Lending to the real estate market and the construction sector was monitored on a constant basis so as not to accumulate risks in this regard and to reduce pro-cyclicality. As a result of these measures, despite the severity of the stress, the financial sector is now more prepared to deal with crises and it is expected that the sector will play one of the main roles in the recovery of the economy after the pandemic.

During the pandemic, fiscal stimulus has been of high importance, which requires a significant increase in the budget deficit. With a sustainable financial sector, it becomes possible to allocate the budget deficit towards supporting economic sectors and in providing targeted assistance to various social segments, rather than the financial sector.

The 2020 crisis once again demonstrates the importance of the country's economy being resilient against shocks. Due to the reforms previously undertaken, despite the scale of the 2020 crisis, the NBG today has a range of efficient monetary and macroprudential policy instruments. The financial sector is sustainable and sufficient buffers have been accumulated to help the economy overcome this crisis more rapidly and with fewer costs than in previous crises..

Figure II.1. Balance of payment inflows in Georgia

	2020 Forecast			
	World		Georgia	
	Before the pandemic	During the pandemic	Before the pandemic	During the pandemic
Economic growth	3.4%	-4.9%	5.0%	-5.0%
Inflation (emerging economies)	4.8%	4.6%	1.8%	3.8%
Growth of the credit portfolio			15.0%	5.0-10.0%

Source: NBG Monetary Policy Reports (February 2020 & August 2020); WEO (October 2019 & April 2020)

II. Vulnerabilities and Risks Affecting Financial Stability

External Vulnerabilities

Georgia is a small open economy with a high level of dollarization, a current account deficit and increasing dependence on international financial inflows. These characteristics make the country highly vulnerable to external developments. This has become especially evident during the COVID-19 outbreak, with the pandemic triggering Georgia's vulnerability to external factors. The pandemic caused a significant decrease in receipts from exports of goods and international travel, as well as from remittances and foreign direct investment. Risks stemming from the global macro-financial environment, including the worldwide decrease in demand, repricing of risk premia for emerging economies and the decreasing growth of money transfers, will all have a negative effect on Georgia's balance of payments.

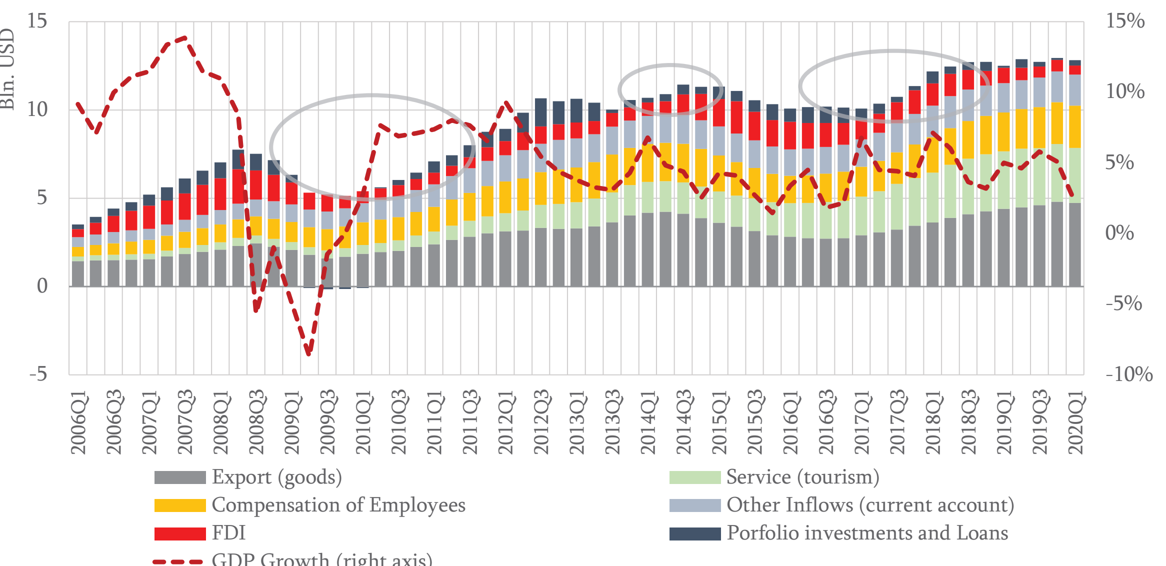
Georgia is characterized by a number of structural vulnerabilities that, when coupled with the COVID-19 recession, have triggered the economy's vulnerability to the external sector. Georgia is a small open economy with a high level of dollarization, a current account deficit and increasing dependence on international financial inflows. All of which makes the country's financial system vulnerable to global economic and financial trends. The COVID-19-induced global economic crisis and, more specifically, the significant decline in economic activity and financial inflows, increased risk premia, and uncertainty related to the scope, spread and duration of the pandemic have all triggered Georgia's vulnerability to external developments. Risks related to the vulnerability of Georgia's financial system to global economic and financial trends were thoroughly discussed in the 2019 Financial Stability Report.[8] The COVID-19-induced recession has triggered these risks.

COVID-19-induced risks in the international macro-financial environment are transmitted to domestic financial stability through several main channels. Measures adopted to prevent the rapid transmission of COVID-19 have had a negative effect on international financial inflows. Specifically, restrictions placed on international flights in the first two quarters of 2020 led to a significant decrease in the number of international visitors and the income from international travel. Moreover, economic difficulties in trading partner countries reduced both money transfers and exports of goods and services. At the same time, the repricing of risk premia in emerging countries caused a tightening of financial conditions, which, despite decreasing global interest rates, increases the cost of lending in foreign currency. All of this led to a significant decrease in international inflows, which caused currency depreciation and increased fluctuations in the exchange rate. It should be noted that, after the significant drop observed in the first months of virus-related restrictions, there have been some positive developments observed since June, especially in terms of money transfers – this could be a result of transfers shifting to banking channels. Overall, despite improvements in certain areas, due to the high degree of uncertainty regarding the likely duration of the global recession, external sector risks to financial stability remain.

Georgia's increasing dependence on international trade and financial inflows in recent years has resulted in financial stability risks during the pandemic. Historically, exports of goods have been the main source of financial inflows; however, the share of tourism has been steadily growing (see Figure II.1). Increasing trade and financial inflows support economic growth, but they also increase the country's exposure to developments in trading partner economies. Previous episodes of declining inflows (indicated by circled areas in Figure II.1), which were accompanied by domestic imbalances, show that these can have a material effect on GDP growth. The COVID-19-induced global economic recession triggered these risks. Specifically, economic difficulties caused by the pandemic in the region and among Georgia's trading partner countries have significantly decreased current account inflows. This, coupled with a slowdown in economic activity, has had a negative effect on economic growth and creates risks to financial stability.

8 See https://www.nbg.gov.ge/uploads/publications/finstability/finstability_2019_eng_publish_3.pdf

Figure II.1. Balance of Payment inflows in Georgia

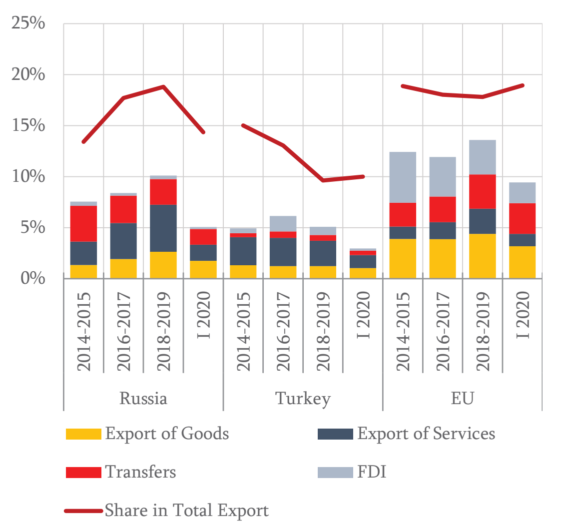


Source: NBG, GeoStat

Georgia is highly exposed to developments in Turkey, Russia and the EU – a fact that has become especially evident during the COVID-19 pandemic. As of the first quarter of 2020, these countries accounted for 40 percent of Georgia's total exports and 43 percent of total external inflows. These figures are significantly lower than last year (47 and 53 percent respectively), but this was mainly driven by decreasing inflows from Russia. Compared to 2019, Russia's share in both exports and total inflows decreased; while the shares of EU countries and Turkey in GDP continue to grow (see Figure II.2). Nevertheless, compared to previous years, the ratio of total inflows to GDP significantly decreased in the first quarter of 2020. However, overall dependence on international inflows remains at a high level, which makes the Georgian economy especially vulnerable to developments in these markets. In the EU, reduced demand and closed borders following the spread of COVID-19 led to lower exports and reduced investment. In Russia, the pandemic was coupled with decreasing oil prices, which, compared to the first quarter of 2019, caused a decline in every component of inflows except for foreign direct investment. The pandemic has made it clear that a high level of dependence on international markets creates the risk of a sudden stop of inflows, which has a negative effect on the economy and, consequently, on the country's financial stability.

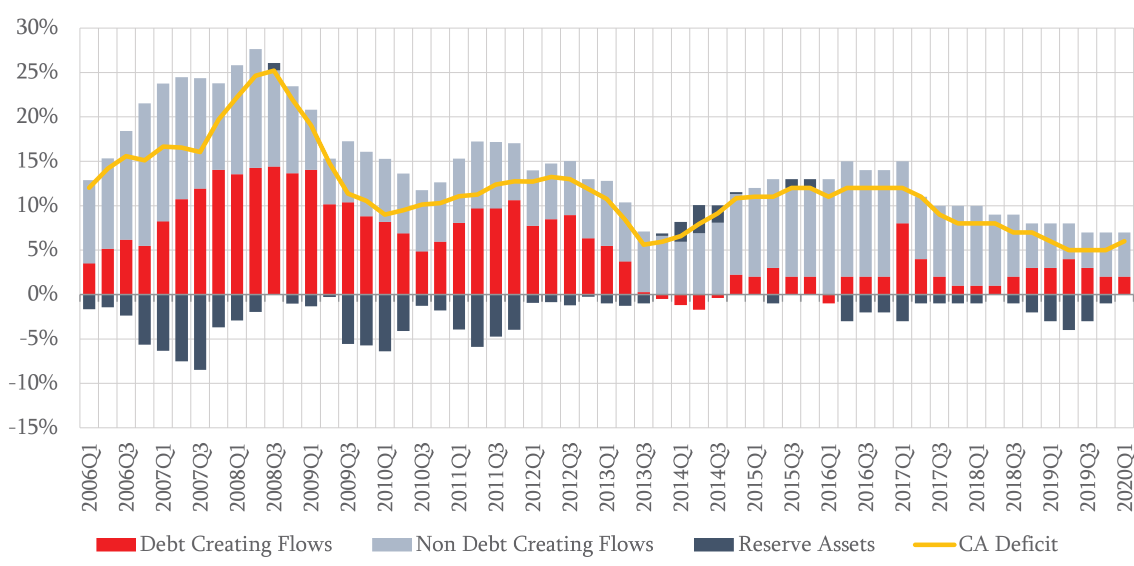
The current account (CA) balance improved in 2019; however, the worsening external developments due to the COVID-19-induced global crisis are expected to increase the CA deficit. In 2019, increasing exports of goods and services, money transfers and income from international travel all improved the CA balance. However, the expected economic problems in trading partner countries and a sharp decrease in tourism-related income in 2020 will result in an increasing CA deficit. Lower global demand will continue to reduce income from exports of goods. In addition, the worsening economic situation has decreased investors' risk appetites, which has resulted in increasing risk premia and massive capital outflows from developing and emerging countries. Since Georgia's CA deficit is mainly financed using foreign direct investment (FDI), an increased risk premia will have a negative effect on the balance of payments (see Figure II.3). Moreover, a decrease in FDI will increase the share of debt instrument, which will intensify external vulnerability. Con-

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



Source: NBG, Geostat

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



Source: NBG

sidering these developments, the CA deficit is expected to increase in 2020. However, that increase will be partially offset by the decrease in imports caused by weaker aggregate demand.

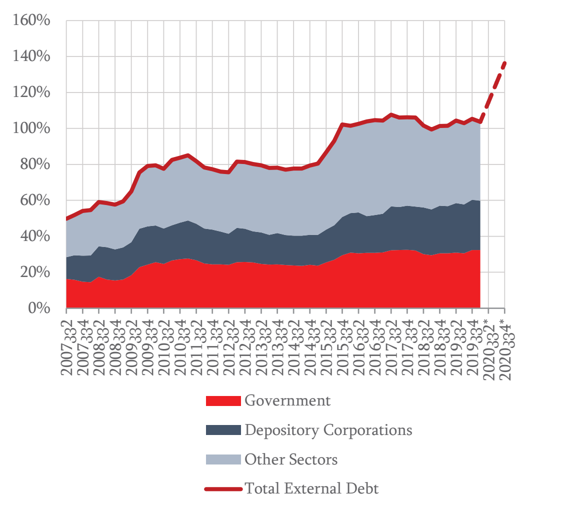
There is a higher risk of sudden capital outflow as a result of the repricing of risk premia. However, the smaller share of portfolio investment in Georgia's Net International Investment Position (NIIP) makes the country less exposed to this risk. An increase in the risk premium can also increase the debt service of external debt and create refinancing risk. However, since the share of Georgia's short-term debt is low, this lowers this risk. Negative risk premium shock can also be transmitted to Georgia indirectly from its trading partners through the CA. Specifically, the depreciation of trading partner currencies caused by the repricing of risk premia can adversely affect the real sector of their economies. As a result, export earnings in Georgia will decrease, which will have a negative effect on the CA deficit.

The rise in risk premia and the subsequent depreciation of the domestic currency caused by the COVID-19 pandemic has increased debt-servicing costs. Additionally, funds mobilized to mitigate the COVID-19 recession have increased external debt. Georgia's external debt-to-GDP ratio has been stable in recent years, albeit at an elevated level (see Figure II.4). External debt in Georgia is mainly denominated in foreign currency and is largely characterized by export to foreign exchange (FX) risks. This risk became evident during the pandemic when a worsening of external conditions caused a depreciation of the local currency. However, it should be noted that the larization process is ongoing, which will decrease financial stability risks. Additionally, an increase in Georgia's risk premium will affect interest rates on foreign currency denominated debt and will increase the debt servicing costs of external debt. However, this risk is low due to the low share of short-term debt in total external debt. While Georgia's total debt is not high relative to other emerging economies, a significant increase (of 6,187 million GEL) in external public debt is expected in 2020. 14 percent of this increase is a direct result of the COVID-19-related recession and will be used as part of the Rapid Response Program against the pandemic. Overall, based on the IMF's prognosis, by the end of 2020 Georgia's external debt will reach 136 percent of GDP and will gradually decline gradually in upcoming periods.[9] The share of foreign currency (FC) debt in Georgia for almost all types of borrowers is one of the highest among peer countries, and this has been reflected in a significant increase in debt servicing costs following the currency depreciation (see Figure II.5). However, it should be noted that a sizable share of Georgia's external debt is borrowed from international financial institutions on concessional terms. The debt service burden on such loans is lower than the amount implied by market rates.

9 See https://www.imf.org/en/Publications/CR/Issues/2020/05/05/Georgia-Sixth-Review-Under-theExtended-Arrangement-and-Requests-for-a-Waiverof-49394

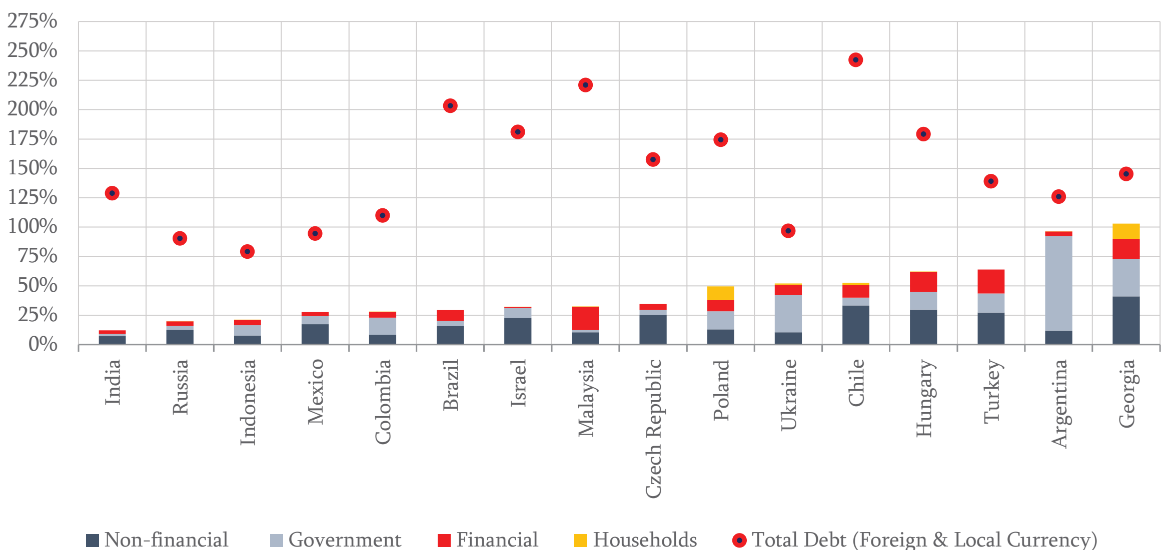
Overall, the external vulnerability of emerging markets (EMEs), CIS countries and Georgia increased compared to 2019. The vulnerability of the Georgian economy to the external environment is comparable to CIS countries, but is higher relative to EMEs (see Figure II.6). Despite the fact that Georgia's CA deficit has been decreasing in recent years, it has worsened due to the COVID-19 pandemic and remains at a high level compared to similar countries. Compared to CIS and emerging market countries, the share of interest payments to export earnings is high, which indicates higher external vulnerability. Moreover, the composition of Georgia's external debt by currency is not optimal, creating risk of a sudden increase in debt-servicing costs in the event of a sudden depreciation of the exchange rate. However, compared to other countries, the favorable maturity structure of external debt indicates a low risk of rollover should financial conditions tighten.

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



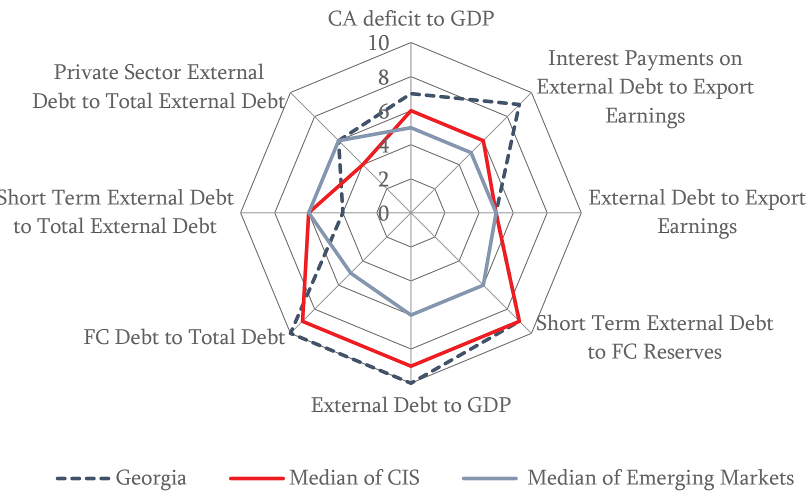
Source: NBG

Figure II.5. Foreign currency debt by type of borrower: Cross-country comparison (% of GDP, as of 2019Q4)



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

Figure II.6. External vulnerability indicators relative to emerging markets and CIS countries[10]



Source: NBG, IMF, WB

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

Household Sector Analysis

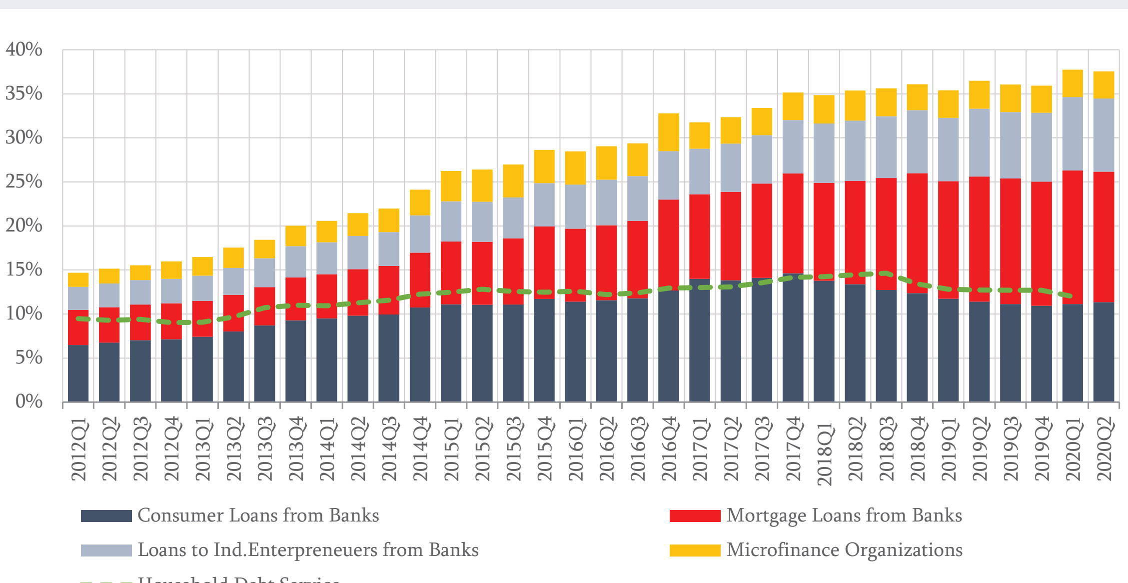
COVID-19 pandemic and the necessary measures taken to prevent its rapid spread have caused significant financial distress for households, especially those with a high debt burden. However, as a result of the measures implemented by the National Bank of Georgia in recent years, households were able to meet the current recession with a reduced debt burden. It should be noted that the programs to support households, such as the loan deferral and government assistance programs, have facilitated a worsening of households' financial conditions during the pandemic. When these programs expire, the deterioration of creditworthiness is expected to cause an increase in non-performing loans (NPL); however, banks have already created the necessary reserves to mitigate such losses.

The pandemic and the necessary measures implemented to avoid its rapid spread have significantly hampered economic activity, which has led to a decline in employment and incomes. These have caused significant financial distress for households. Due to the immensity of the shock coming from the pandemic, the recession has covered almost all sectors of the economy and has had a direct impact on households. Preventive measures against the rapid spread of the virus, as in most countries around the world, decreased economic activity and had a negative impact on employment (see Figure II.8). In 2020, the unemployment rate has increased, amounting to 12.3% in the second quarter, which was mostly a result of a decline in employment in the services sector. This has created significant financial distress for households, especially for those with a high debt burden.

The growth of household loans will slow down in 2020. However, the measures implemented during the pandemic, softened credit conditions and the mortgage subsidy program offered by the government are each expected to stimulate credit growth. Households' credit growth fell significantly in the second quarter of 2020, amounting to 11.2% (see Figure II.9). The contribution of mortgage loans and loans to individual entrepreneurs to total loan growth have decreased. Lower demand on real estate during the pandemic has reduced the issuance of mortgage loans, while lower economic activity has decreased lending to individual entrepreneurs. However, the decline in the policy rate, the temporary supervisory plan and additional liquidity instruments are expected to promote lending from the banking sector to households. In addition, the implementation of the mortgage subsidy program offered by the government is expected to increase households' demand for loans.

Although the legislative changes and macroprudential measures recently implemented by the NBG have significantly decreased households' vulnerability to exchange rate volatility, the currency risk of non-hedged borrowers still remains an important challenge. Despite the

Figure II.7. Household debt to GDP ratio

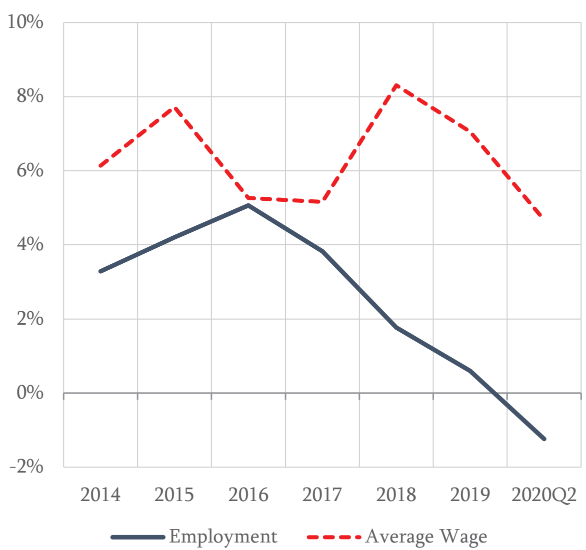


Source: NBG

declining trend, dollarization of loans to natural persons is still quite high at 43%. The establishment of responsible lending regulations and a restriction on foreign currency borrowing under 200,000 GEL significantly reduced the amount of loans issued in foreign currency. In particular, while the quantity of loans in foreign currency issued over a quarter averaged around 30,000 before 2017, from 2019 only 3,000 loans are issued on average each quarter (see Figure II.10). It is noteworthy that the volume of loans has not decreased significantly, indicating that financial intermediation has not diminished.

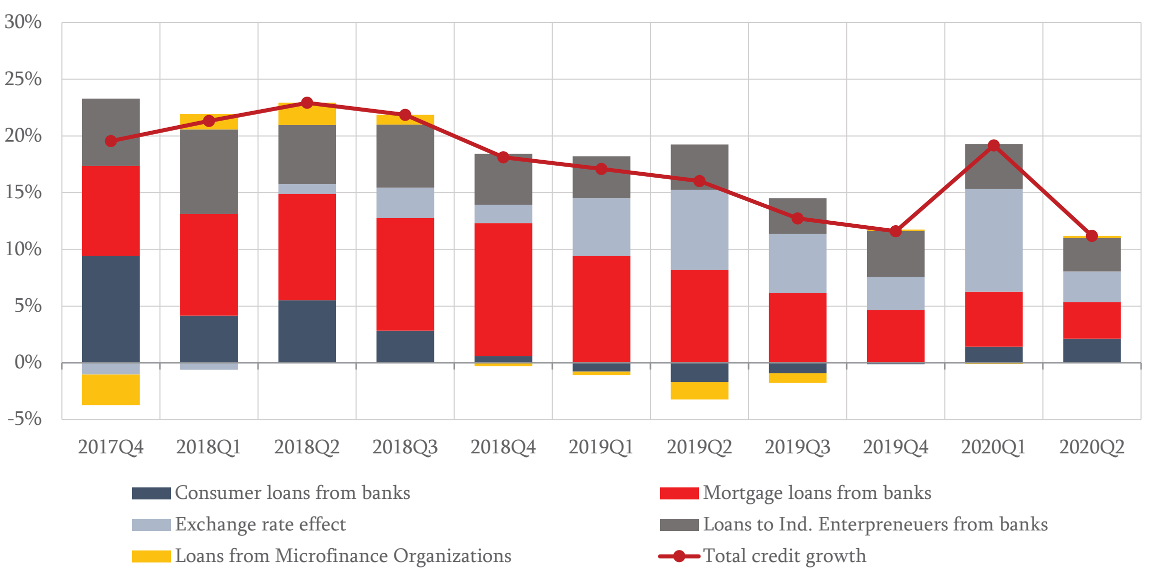
Despite the decrease in the quantity of new loans issued in foreign currency, various loan agreements issued in previous years have not yet been completed or terminated, and thus such borrowers are still exposed to currency risk. There are 68,000 active foreign currency loans in the banking system portfolio, amounting to 7.3 billion GEL. However, a significant portion of such loans are already largely amortized and the borrower is left with little debt; also, 80% of these loans are above 100,000 GEL, which are usually issued to high-income borrowers and are considered less risky (see Figure II.11). In addition, the loans issued in 2019 satisfy the healthy limits of the PTI and LTV ratios, further ensuring a reduction of risk.

Figure II.8. Labor market indicators, growth (YoY)



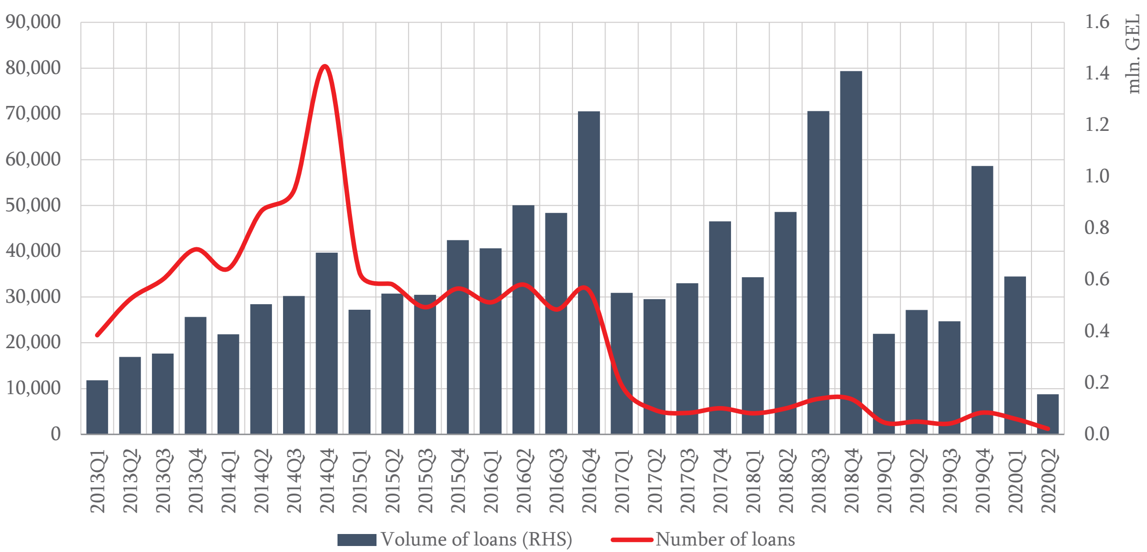
Source: Revenue Service

Figure II.9. Decomposition of annual households credit growth



Source: NBG

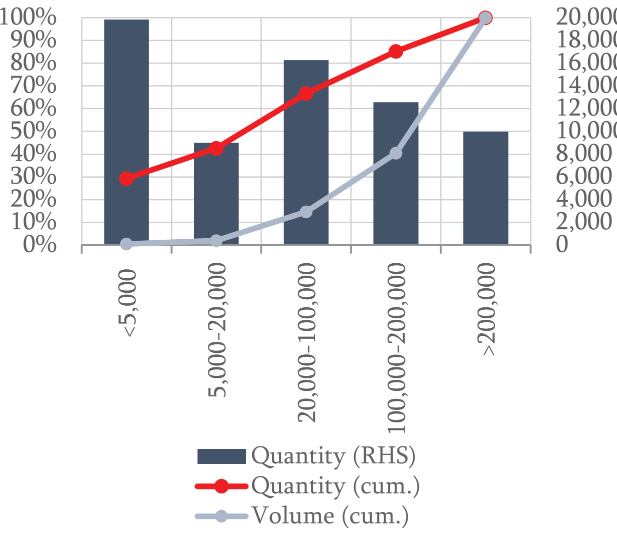
Figure II.10. Dynamics of foreign currency loan issuance



Source: NBG

The pandemic is expected to worsen households' creditworthiness, which will be reflected in an increase of non-performing loans; however, commercial banks have sufficient buffers to mitigate such losses. As a result of the pandemic, the household debt burden was increased relative to household income. Although the enactment of loan deferral periods softened the financial conditions, when these programs expire non-performing loans are expected to increase due to worsened creditworthiness. To mitigate these losses, commercial banks created necessary reserves in March 2020. These reserves remain adequate for the expected deterioration of asset quality, even in August, and a further increase is not required. It is noteworthy that after the 2008 financial crisis it took three years for the share of non-performing loans to fall from 12.9% to 5%. The recovery of non-performing loans after the current recession will depend on the duration and depth of the crisis, and the pace of recovery.

Figure II.11. Distribution of the foreign currency loan portfolio, June 2020

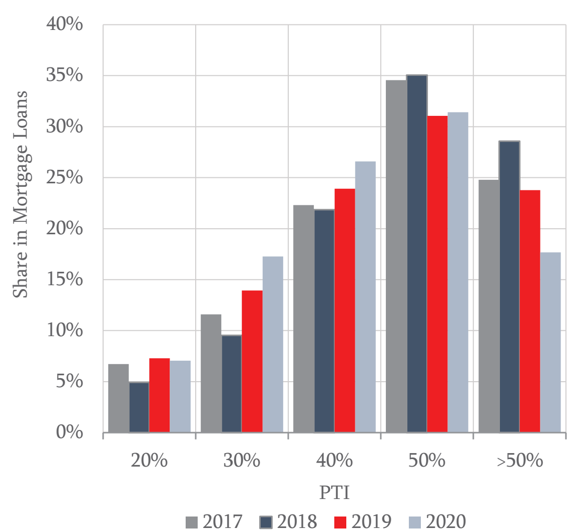


Source: NBG

The establishment of responsible lending regulations by the NBG reduced over-indebtedness and, as a result, households entered the current recession in a better financial condition than they would have previously. The introduction of PTI and LTV limits has significantly decreased the vulnerability of the household sector. Households taking out loans after the enactment of the regulations had sufficient buffers to overcome financial stress. It should be noted that in 2019 only 23.8% of mortgage borrowers had a PTI ratio exceeding 50%. Also, the share of loans with a LTV of above 80% has been declining in recent years, and reached 27.5% in 2019, while in 2018 this share was 41.8%. The dynamics of PTI and LTV distributions indicate that high-risk loans have been declining in the banking portfolio.

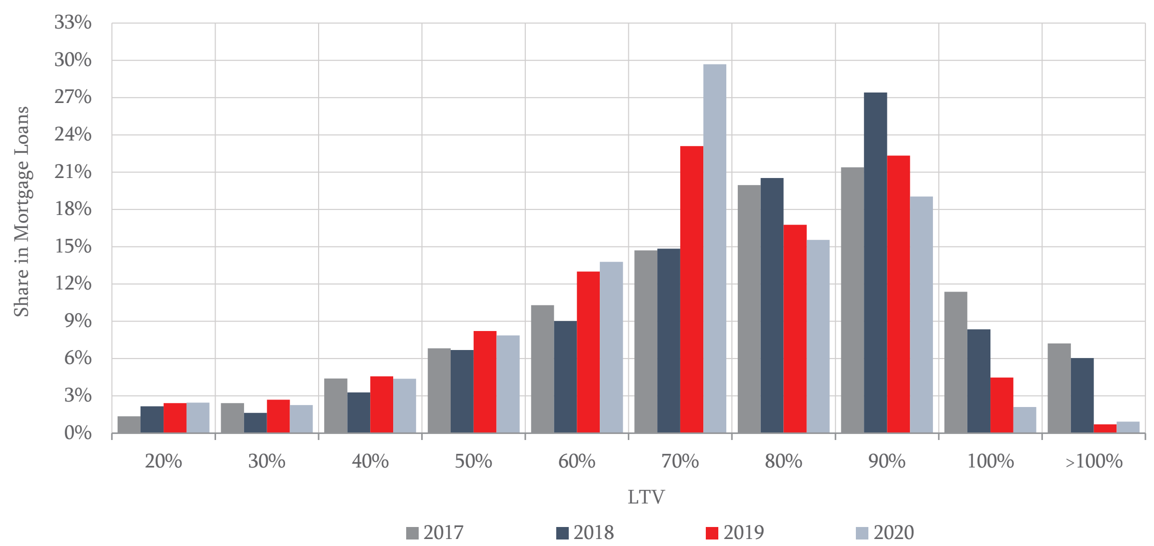
In addition, support programs are expected to soften the impact of the crisis for households (see Box 2). The loan deferral periods introduced by commercial banks protected households from the difficulty of servicing their debts. At first, 70% of borrowers benefited from a temporary grace period for loan payments. This significantly mitigated the negative impact of the pandemic on those households and protected the economy from a larger drop in demand. It should also be noted that government assistance partially eased the conditions of households. Furthermore, the range of government concessions for businesses (see the Corporate Sector section of this report) enabled them to maintain workplaces.

Figure II.12. Distribution of the PTI ratio



Source: NBG

Figure II.13. Distribution of the LTV ratio

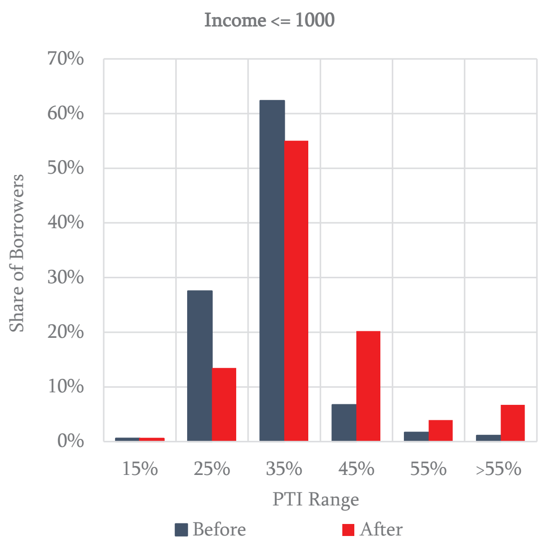


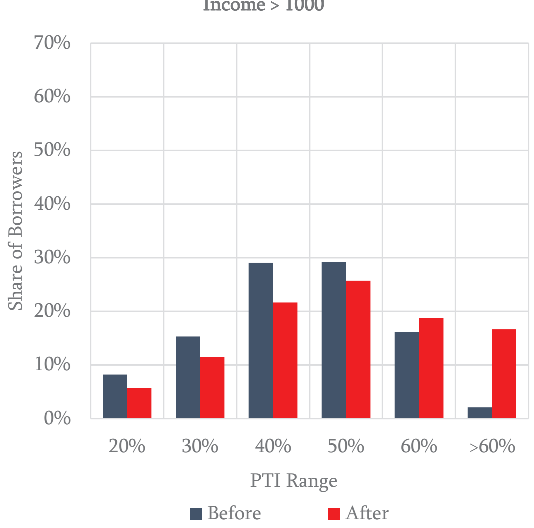
Source: NBG

Sensitivity Analysis of the Household Sector

According to the sensitivity analysis, low-income borrowers and those with loans in foreign currency are exceptionally vulnerable to adverse economic shocks. In the case of the moderate risk scenario (see the Macro-Financial Risk Scenarios section of this report), which assumes exchange rate depreciation of 15% and a decrease in the average wage and employment by 5% each, the share of households with a PTI ratio of more than 50% sharply increases, regardless of income group. Within this scenario, considering living costs, it will be harder for low-income households to service their debts. It should be noted that for 80% of the mortgage portfolio the LTV ratio is less than 70%, which provides less incentive for borrowers' to strategically default and reduces credit risk for the banking sector (see the Real Estate section of this report). Households also remain vulnerable to exchange rate depreciation. Meanwhile, although sensitivity to the interest rate is increased, its material increase is less likely considering the current economic shock.

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





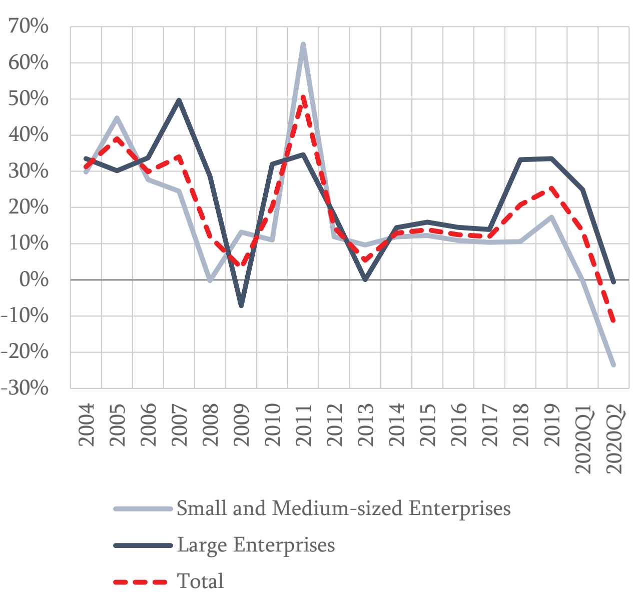
Source: NBG

Corporate Sector

COVID-19 containment measures, growing uncertainty and diminishing demand have all increased the risks related to the financial resilience of the corporate sector. Although overall corporate debt remains at a sustainable level, companies are vulnerable to the prevailing risks as a result of their sizable exposure to foreign funding sources, the significant share of short-term debt and high liability dollarization. The recession caused by the pandemic and the materialization of existing vulnerabilities will result in increased credit risk in the corporate sector. This has a considerable bearing on the financial sector and also spills over to households. The pandemic is deemed to have had a particularly strong negative impact on small- and medium-sized enterprises, procyclical industries, and external demand-oriented businesses. In order for companies to maintain access to funding sources, which is vital for their continuous functioning and provision of employment, targeted anti-crisis state programs are of crucial importance.

COVID-19 has had an adverse impact on non-financial companies and has increased risks related to their financial resilience. In the first half of 2020, against the backdrop of the virus containment measures, both domestic and external demand dropped. Moreover, in order to comply with the containment measures, some industries had to restrict or temporarily close their operations. Following improvements in the epidemiological situation in the country, restrictions have begun to be lifted and most industries have restarted operations. However, in the midst of the high regional and global infection rate, and the accompanying uncertainty regarding the duration of the pandemic, companies have to face the weak demand that is driven by reduced household incomes and deteriorated consumer sentiment. The improving growth trend of corporate revenues observed in previous years stalled in the first half of 2020. Companies have experienced a substantial drop in revenue growth rates, and this was particularly pronounced among small- and medium-sized enterprises (see Figure II.15). In the wake of uncertainty, corporate profitability, employment, investment activity, and financial resilience have all been negatively affected by the drop in revenues. Subsequently, the challenges to the corporate sector brought about by the pandemic risk spilling over to households and the financial system, thus leading to a deterioration of potential economic growth.

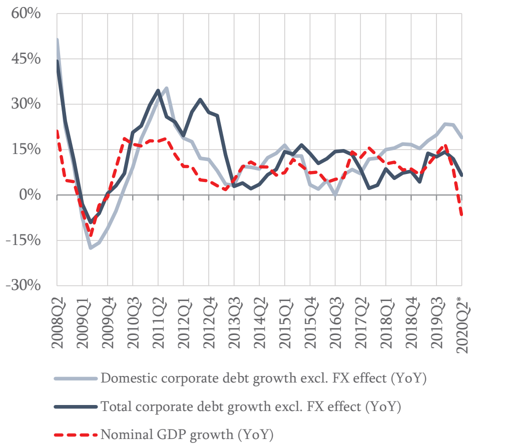
Figure II.15. Annual growth in turnover by company size



Source: GeoStat

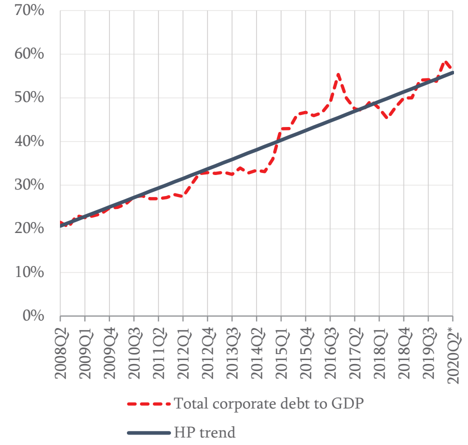
Overall corporate debt remains at a sustainable level, which contributes to the sector's financial resilience towards the repercussions of the COVID-19 pandemic. In 2019, the corporate debt issued by domestic banks increased substantially and became the main driver of the overall growth of bank credit. To some extent, this was induced by the enactment of the decree on responsible lending to households from the beginning of 2019.[11] This decree has helped to enhance the quality of the household debt portfolio and bring the growth of household indebtedness to a sustainable level. Subsequently, the freed-up bank funding has been redirected to companies. Despite the elevated growth in domestic corporate debt, the overall growth of corporate debt including foreign funding sources is in line with nominal economic growth (see Figure II.16). In addition, when assessing the financial resilience of companies, it is important to look at the overall corporate debt level in relation to nominal GDP. Corporate debt accumulated in the past can induce solvency issues and pose financial stability risks, even when its current growth rate is consistent with nominal economic growth. In recent years, the corporate debt-to-GDP ratio has remained close to its long-term trend (see Figure II.17), providing further indication that credit growth in the corporate sector is sustainable. Nevertheless, it should be noted that for a comprehensive assessment of corporate financial resilience, it is equally important to analyze the structural characteristics and sectoral breakdown of corporate debt, as is done below.

Figure II.16. Growth rates of nominal GDP and total corporate debt



Source: NBG, GeoStat

Figure II.17. Corporate debt to GDP and its long-term trend[12]

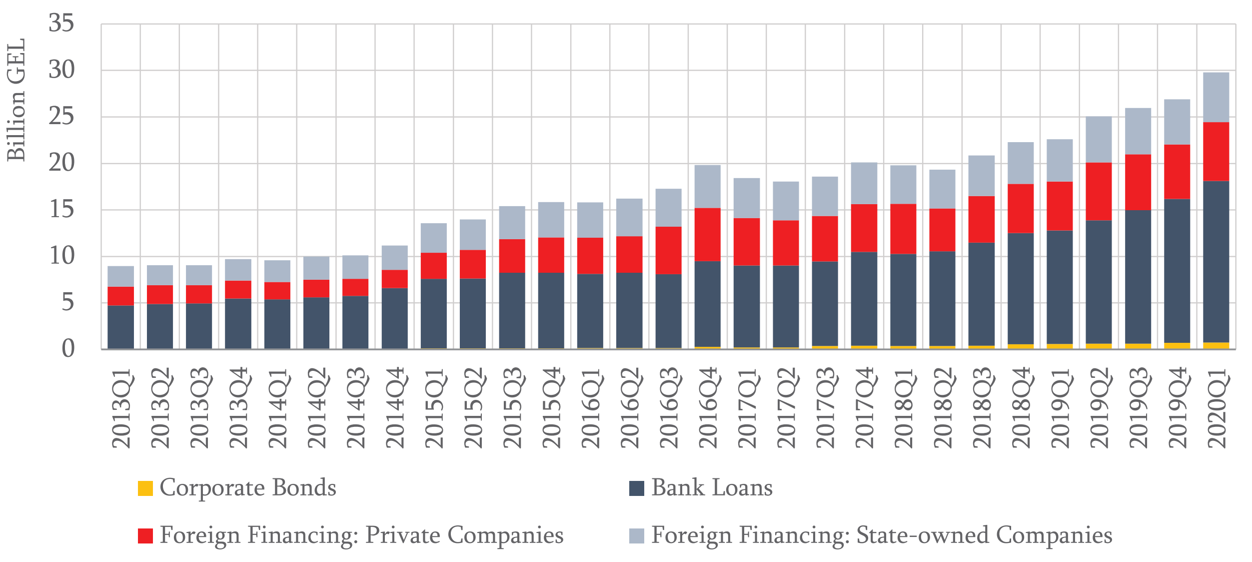


Source: NBG staff estimates

11 See https://matsne.gov.ge/ka/document/view/4822603?publication=0

12 The long-term trend of Credit to GDP ratio is estimated using HP filter with the smoothing parameter 400,000.

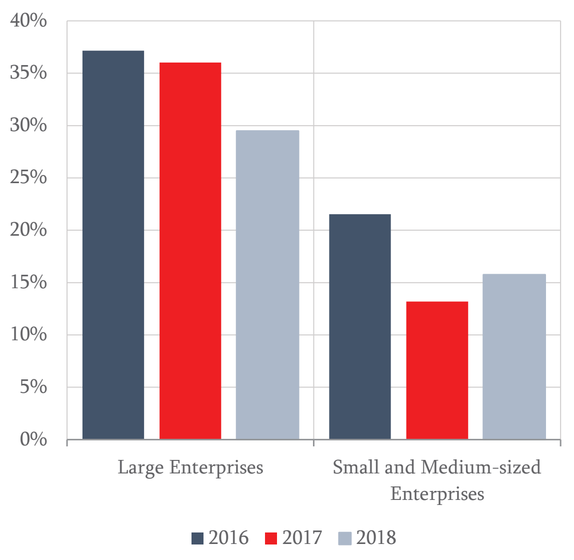
Figure II.18. Debt structure of non-financial companies



Source: NBG

Even though overall corporate debt remains at a sustainable level, a sizable exposure to foreign funding sources poses a threat to companies' financial resilience. In recent years, there has been a considerable increase in the share of foreign financing in the funding structure among companies (see Figure II.18). Although foreign financing provides benefits in terms of diversified corporate funding sources, it comes at the cost of higher exposure to global financial conditions. Although a proportion of foreign financing reflects intercompany loans offered at favorable terms, the availability and cost of foreign funding are generally more responsive to changes in the global macro-financial environment. This risk was particularly evident at the outset of the COVID-19 pandemic, when global financial conditions tightened significantly and credit spreads increased abruptly.[13] A tightening of financial conditions was particularly pronounced in emerging markets and developing countries in the midst of surging sovereign risk premia and massive capital outflows. It should be noted that after the unprecedented expansionary measures that were introduced by leading central banks in an effort to support economic activity, risk-free interest rates and credit spreads have reversed to some extent. However, overall financial conditions remain tighter as compared to the pre-crisis period.

Figure II.19. Median share of short-term debt in total debt by company size



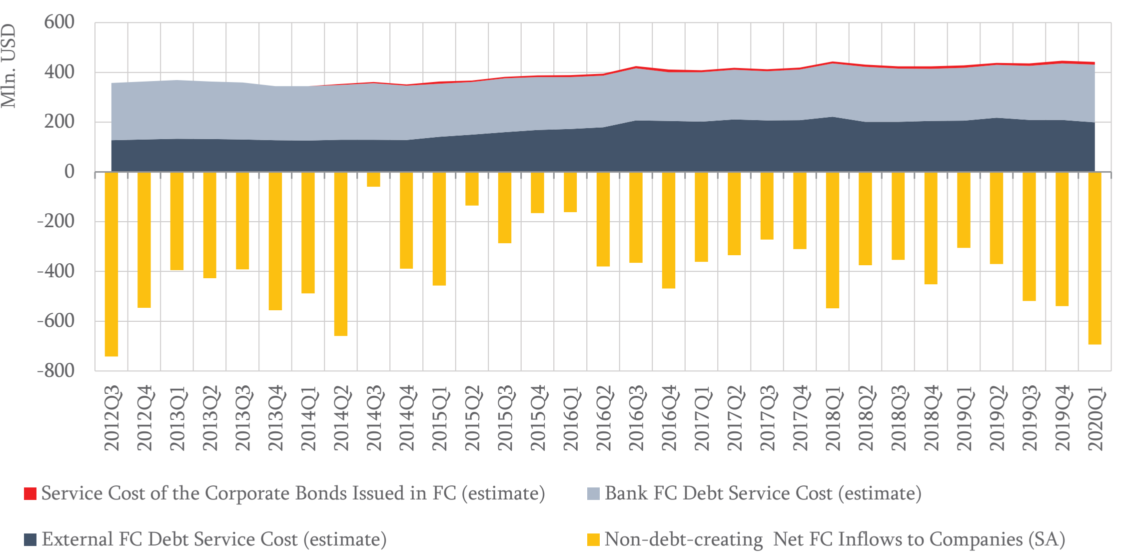
Source: SARAS[14]

The significant share of short-term corporate debt, especially in large enterprises, poses another vulnerability to tightening financial conditions (see Figure II.19). From the beginning of 2020, the economic repercussions of the pandemic and the accompanying uncertainty led to increased liquidity and credit risks, which were reflected in tightened credit conditions. As a result, companies that carry a significant share of short-term debt on their balance sheets may face rollover risk. Against the backdrop of a deteriorated operational environment and a shortage of liquidity, increased rollover risks may weigh on solvency issues among companies. However, it should be considered that a portion of the short-term debt in large enterprises are intra-group loans that have substantially more generous terms compared to the

13 See Global Financial Stability Report, June 2020 update https://www.imf.org/en/Publications/GFSR/Issues/2020/06/25/global-financial-stability-report-june-2020-update

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

Figure II.20. Non-debt-creating net foreign currency corporate inflows and foreign currency debt service cost[16]



Source: NBG, Staff estimates

market and carry no refinancing risk whatsoever. In order to alleviate the aforementioned risks, the National Bank of Georgia implemented new instruments for providing liquidity, while the Government of Georgia introduced a renewed credit guarantee scheme (see Box 2 for details). In addition, from the beginning of the pandemic, commercial banks offered grace periods to corporate borrowers. A significant share of companies took advantage of these offers, which allowed them to ease their debt burden and alleviate the rollover risk.

The corporate balance sheet is also exposed to exchange rate risk because the share of foreign currency debt remains persistently high, while hedging capacity is limited. The share of foreign currency credit in overall corporate debt remains above 70%. Unless there are hedging tools in place, exchange rate fluctuations can thus adversely affect the corporate debt burden. Given the thin domestic market for financial derivatives,[15] hedging exchange rate risk, especially in small- and medium-sized enterprises, can mainly be achieved by generating sufficient foreign currency net inflows from operational and investment activities to service the existing debt issued in the same foreign currency. However, aggregate non-debt-creating net foreign currency inflows generated by companies have been persistently negative and are thus insufficient to service foreign currency debt (see Figure II.20). Subsequently, companies have to regularly refinance their foreign currency loans and/or purchase foreign currency in order to service their foreign currency debt obligations. In the event of stress, such as the current crisis caused by the pandemic, access to loanable funds becomes limited, which makes refinancing less feasible. As a result, in the process of deleveraging, increased demand for foreign currency from companies may contribute to increased exchange rate pressure. This, in turn, will negatively affect the corporate debt burden and will adversely spill over to the rest of the economy. Moreover, the currency mismatch between non-debt-creating net corporate inflows and debt servicing costs may be even more severe at sectoral and individual levels.

In the midst of the COVID-19 pandemic, the deteriorated economic environment, increased uncertainty, and the materialization of vulnerabilities associated with the structural characteristics of corporate debt, will all cause an increase in credit risk among companies. In addition, given the unfavorable operating environment, the number of corporate debt restructuring cases is expected to rise. This, in turn, may be accompanied by increasing market interest rates due to higher credit risk, which will ultimately lead to a higher corporate debt burden.

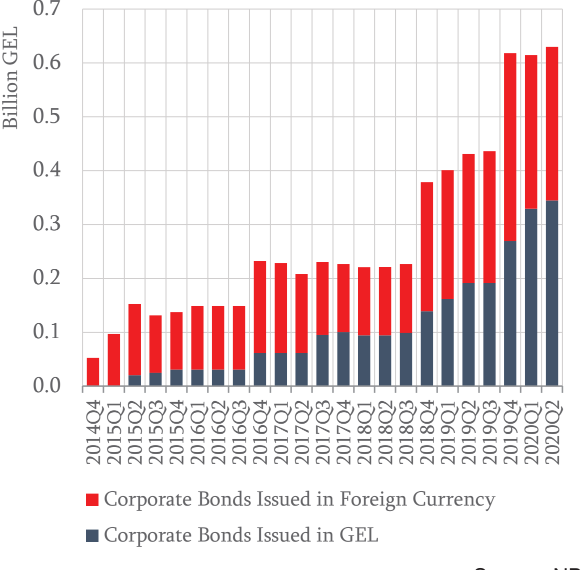
15 At the end of 2019, the Parliament of Georgia enacted the Law on Financial Collateral Arrangement, Close-out Netting and Derivatives, which is supposed to support the deepening of the derivatives markets by providing a proper regulatory framework.

16 Note: the estimates of debt service costs are based on annuity repayment schedule. From the time-value-of-money perspective, this assumption is equally valid for debt instruments with non-annuity repayment schedule.

Given the increased risks, access to corporate loans issued by banks has diminished; however, after the implementation of anti-crisis measures, credit conditions have stabilized. In early 2020, increased liquidity and credit risks led to higher interest rates on new corporate loans, especially for small- and medium-sized enterprises (see Figure II.21). Reduced access to loans in the corporate sector poses a threat to the long-term growth prospects of companies. Uninterrupted access to finance is vital during periods of stress, such as that caused by the COVID-19 pandemic. Owing to the timely anti-crisis measures implemented by the National Bank of Georgia and the government[17], interest rates on corporate loans have stabilized in the second quarter of the year. These measures intend to provide access to liquidity and to reduce credit risk so that financially sound companies that are facing temporary challenges caused by the pandemic can continue to maintain production capacity and employment.

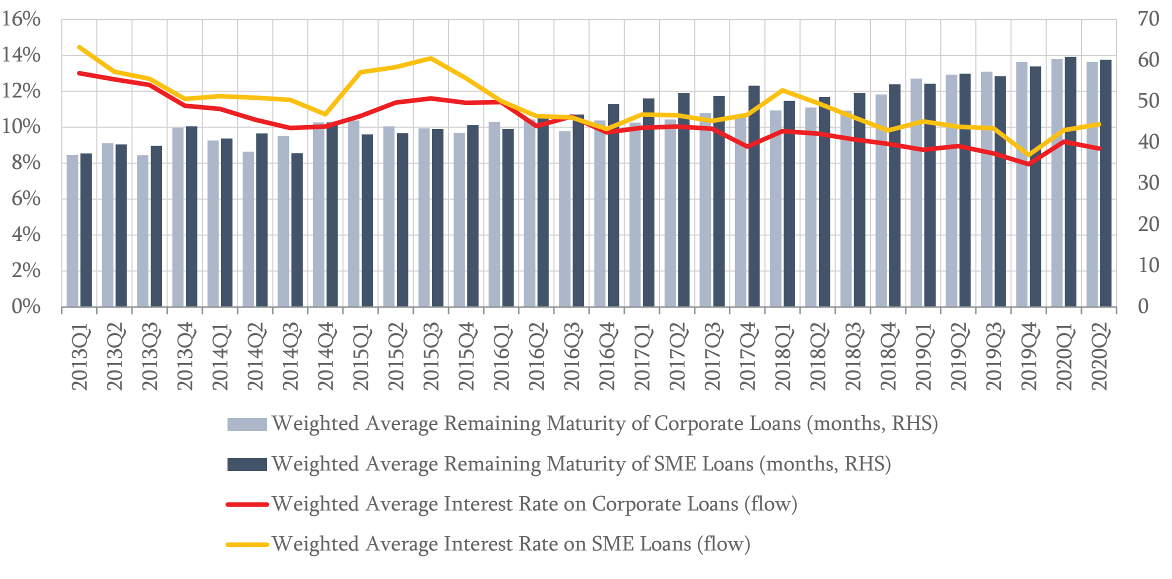
The COVID-19 pandemic can also result in worsened access to market-based funding for companies. The domestic corporate bond market has exhibited ample growth in recent years (see Figure II.22). Moreover, the share of domestically issued bonds denominated in the local currency has grown. This enables large issuers to attract long-term funding without assuming exchange rate risk. However, due to the increased risks resulting from the COVID-19 pandemic, credit spreads have increased in global capital markets. This has led to reduced access to market-based funding, especially for non-investment grade borrowers.[18] This tendency will also likely have an impact on domestic issuers. Nevertheless, the share of debt securities in total corporate funding is still negligible. The reduced availability of both foreign financing and domestic market-based funding will result in increased reliance on bank credit. Therefore, it is important that the banking sector is able to supply funding to eligible companies in a timely manner.

Figure II.22. Outstanding corporate bonds issued in the domestic market (public offering)



Source: NBG

Figure II.21. Weighted average interest rates and remaining maturity of corporate debt



Source: NBG

17 See Box 2 for details.

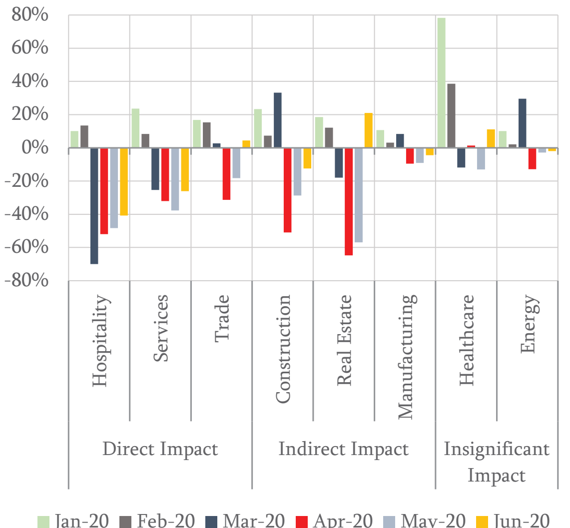
18 See Global Financial Stability Report, June 2020 update https://www.imf.org/en/Publications/GFSR/Issues/2020/06/25/global-financial-stability-report-june-2020-update

Even though the COVID-19 pandemic has caused global disruption in economic activity, the severity of its impact on the corporate sector is expected to vary by company size. All other things being equal, small- and medium-sized enterprises will face more challenges than larger companies. This is because, in general, the latter have greater capacity to manage risks. In addition, small- and medium-sized enterprises generally operate in less diversified markets and are more collateral-constrained. Therefore, these companies will need more targeted support to deal with the consequences of the pandemic. Large companies are also vulnerable to the risks induced by the pandemic due to the comparatively higher financial leverage that they hold. In order to provide uninterrupted funding at affordable terms to small- and medium-sized enterprises, the National Bank of Georgia has implemented a specially designed instrument for liquidity provision. Furthermore, the government increased funding for the credit guarantee scheme and the state co-financing and loan interest subsidy programs (see Box 2 for details).

The impact of the pandemic on the corporate sector also varies by industry. Therefore, it is crucial to identify vulnerable industries, assess buffers and estimate the potential impact of the pandemic on the financial system. Companies can be grouped into three broad categories according to the nature of the pandemic's impact on them: direct adverse impact, indirect adverse impact, and insignificant impact. A description of these categories and the list of corresponding industries are given in Table II.1.

The scale of the pandemic's impact and the speed of recovery in each industry can be deduced from the annual change in company turnovers (see Figure II.23). Among the industries that faced a direct adverse impact, the drop in turnovers has been particularly pronounced in the hospitality and services industries. Moreover, given the continuation of virus containment measures, the recovery of these industries has been rather weak. When it comes to those industries facing an indirect adverse impact, procyclical businesses such as construction and real estate have suffered the most. However, these industries exhibit a comparatively stronger recovery. Interestingly, a significant portion of companies have suffered more than can be observed from the average sectoral turnover drops. This again indicates the great vulnerability of small- and medium-sized enterprises to the shocks caused by the pandemic.

Figure II.23 annual change in turnover in selected industries



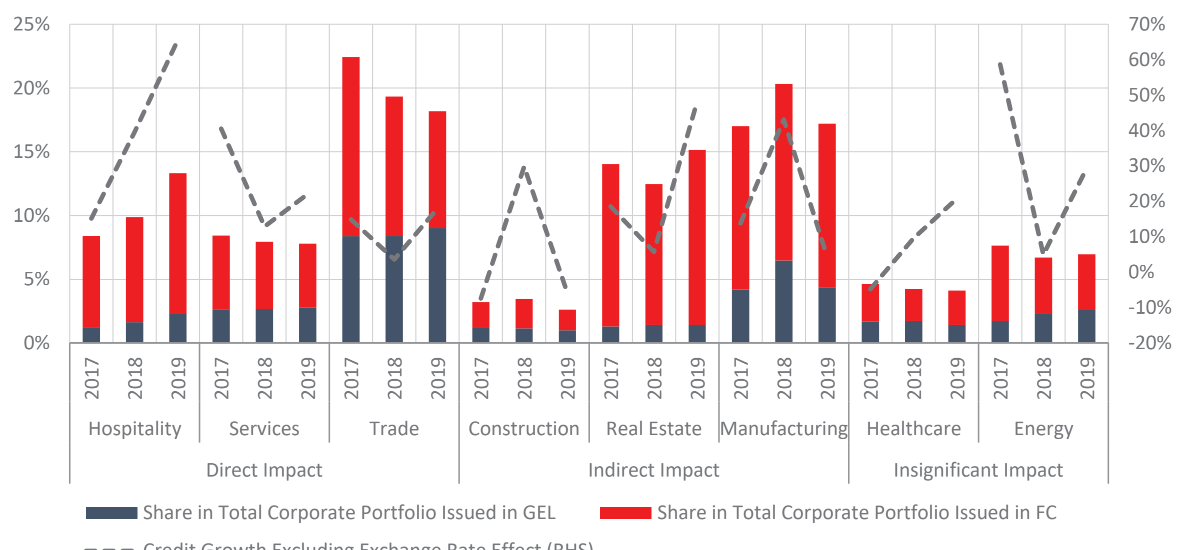
Source: Revenue Service of Georgia

Table II.1. Categorization of companies based on the nature of the pandemic's impact

Category	Description	Industries
Direct Adverse Impact	Industries that experienced interruptions to their business activity due to the virus containment measures	• Hospitality (hotels, restaurants and recreational facilities) • Service Industry (transport, logistics, research, consulting, management, technical assistance, repairs, insurance, education, etc.) • Trade in Durable Goods.
Indirect Adverse Impact	Industries that faced reduced demand during the pandemic due to deteriorated economic conditions and increased uncertainty	• Construction • Real Estate • Manufacturing
Insignificant Impact	Industries that turned out to be less sensitive to the pandemic	• Healthcare and the Pharmaceutical Industry • Energy

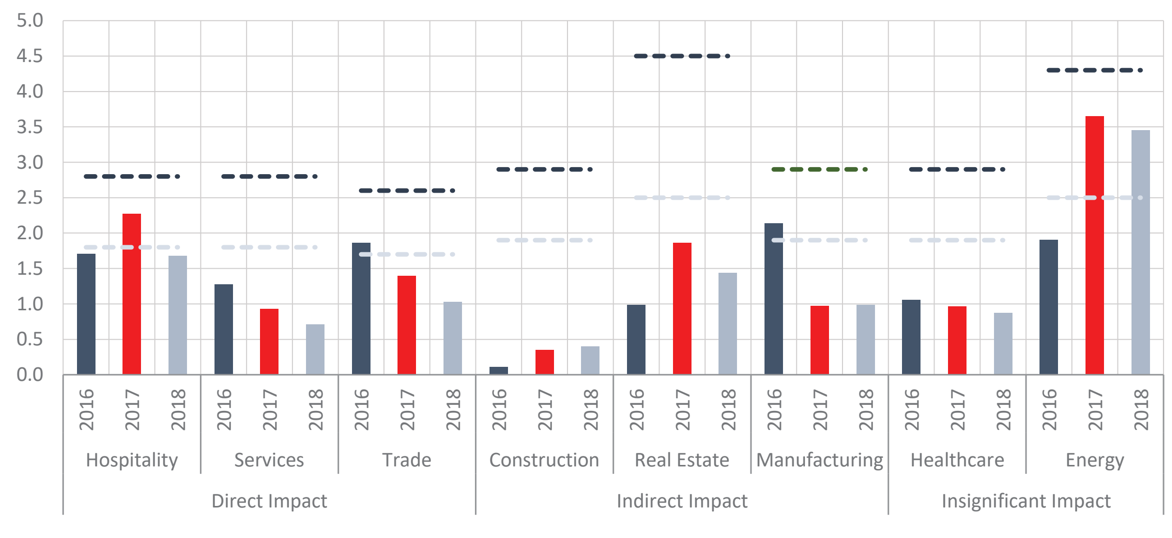
Among the industries that faced direct and indirect adverse impacts from the pandemic, the hospitality and real estate industries have displayed ample growth in bank credit and a high level of liability dollarization (see Figure II.24). Even before the pandemic, the National Bank of Georgia pointed out the risks related to the substantial growth in real estate activities and hotel construction.[19] As was stated by the NBG, should tourism inflows drop, a potential contraction in these industries could weigh on banks' financial soundness and profitability. Moreover, the debt burden in these industries is worrisome. The debt burden in the hospitality industry is at the cutoff between the low- and medium-risk zones, while the real estate industry, despite being in the low-risk zone, has seen a steady increase in debt burden (see Figure II.25). When it comes to financial health, most industries have shown a decreasing trend in non-performing loans in recent years (see Figure II.26). This indicates the general improvement of financial health during those periods. However, in the current period, the anticipated increase in credit risk is expected to reverse this process, especially in procyclical industries such as hospitality, construction and real estate activities.

Figure II.24. Distribution and growth rates of corporate loans issued by banks



Source: NBG

Figure II.25. Median debt burden of companies in selected industries*



Source: SARAS; NBG staff estimates

* Note: the debt burden is measured as the total corporate debt to EBITDA ratio. Risk thresholds are based on Moody's methodology[20] and the judgment of NBG staff.

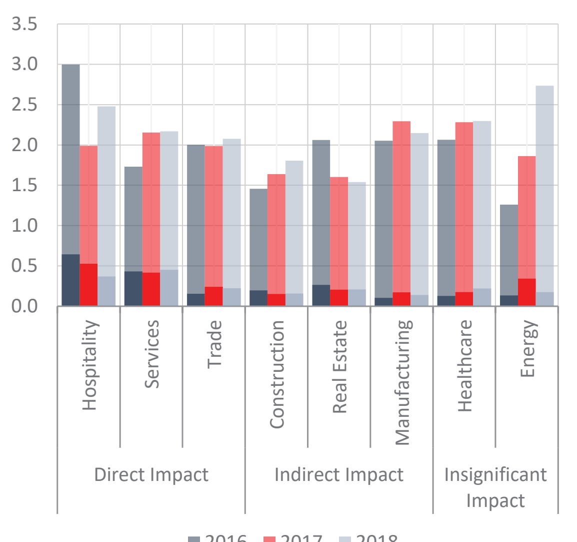
19 See Annual Report of the National Bank of Georgia 2019: https://www.nbg.gov.ge/index.php?m=348&lng=eng

20 See Moody's Financial Metrics™ Key Ratios by Rating and Industry for Global Non-Financial Corporations.

Profitability and liquidity analysis allow for the evaluation of the buffers of companies within the vulnerable industries. In terms of profitability, we focus on the portion of corporate revenue that is available for servicing financial liabilities, the so-called EBITDA margin. This margin has displayed an increasing tendency in both the real estate and hospitality industries. In the latter, however, the margin remains rather low (see Figure II.27). In terms of liquidity, there has been a deterioration in the current ratios in both the real estate and hospitality industries. However, the latter is in a marginally better position by holding more cash and equivalents as a share of current assets (see Figure II.28).

To summarize, as the sectoral analysis revealed, the hospitality and real estate industries are relatively more vulnerable to the risks posed by the pandemic. These industries are also distinguished by a lack of buffers. In most of the industries discussed, the debt burden was moderate and their financial health had been improving before the pandemic. However, there were considerable differences in terms of their profitability and liquidity positions. The hospitality and real estate industries are particularly noteworthy given their relatively higher debt burden, highly dollarized liabilities and lack of internal buffers. In order to deal with the adverse consequences of the pandemic, apart from relying on internal buffers, such vulnerable industries can also take advantage of the anti-crisis programs offered by the government, including the tax relief programs and targeted support to the real estate and construction industries (see Box 2 for details).

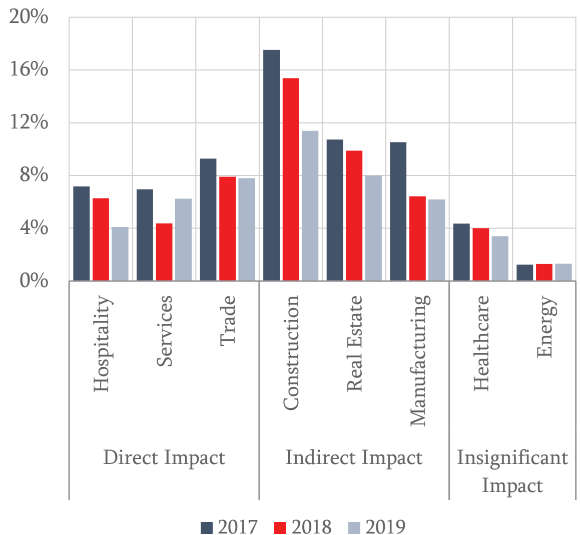
Figure II.28. Liquidity of companies in selected industries*



Source: SARAS, NBG staff estimates

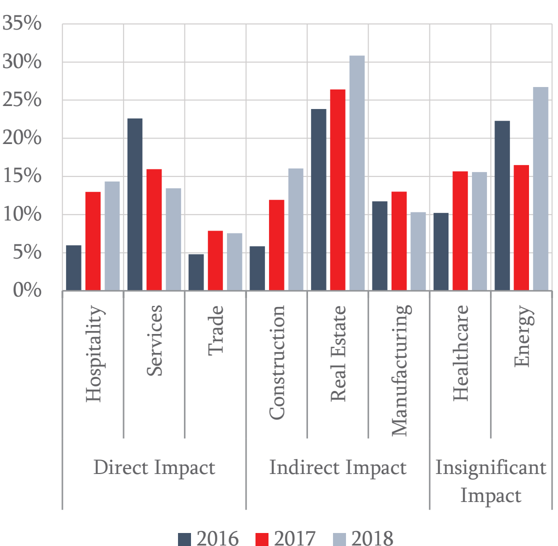
*Note: the height of columns corresponds to the median current ratio (current assets relative to current liabilities) for the given industry in the given year. The darker shaded portions of the columns correspond to the median cash ratio.

Figure II.26. Share of annual average non-performing loans to total loans in selected industries



Source: NBG staff calculations

Figure II.27. Median EBITDA margin of companies in selected industries



Source: SARAS, NBG staff estimates

Sensitivity Analisys of the Corporate Sector

Non-financial corporations are vulnerable to the deterioration of macro-financial conditions. The impact of the macro-financial shocks induced by the COVID-19 pandemic on corporate debt-servicing capacity was examined using sensitivity analysis. The scale of the shocks were calibrated to be consistent with the moderate risk scenario as discussed in the external vulnerabilities section of this report (see Table II.2).

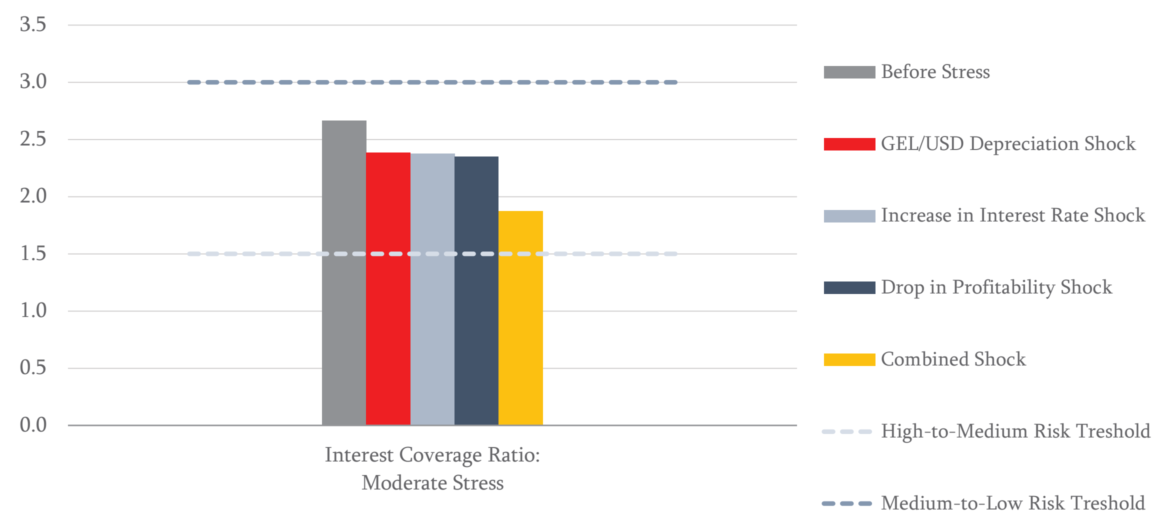
Figure II.29 shows the median interest coverage ratio[21] (ICR) for non-financial corporations before stress (at the 2019 level), the stressed ratios under each selected shock, as well as the combined impact of the three shocks. The median interest coverage ratio, as of 2019, was 2.7, which is within the medium risk zone, according to Standard & Poor's Corporate Methodology.[22] A drop in operating cash flows was found to have the highest impact among the individual shocks selected. Interestingly, the median interest coverage ratio remains within the medium risk zone, even under the combined shock.

Table II.2. Macro-financial shocks for the sensitivity analysis of non-financial corporations

	Increase in Market Interest Rate Shock	GEL/USD Exchange Rate Depreciation Shock	Drop in Operating Cash Flows Shock*
Moderate Stress	5%	15%	12%

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

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



Source: SARAS; NBG staff calculations

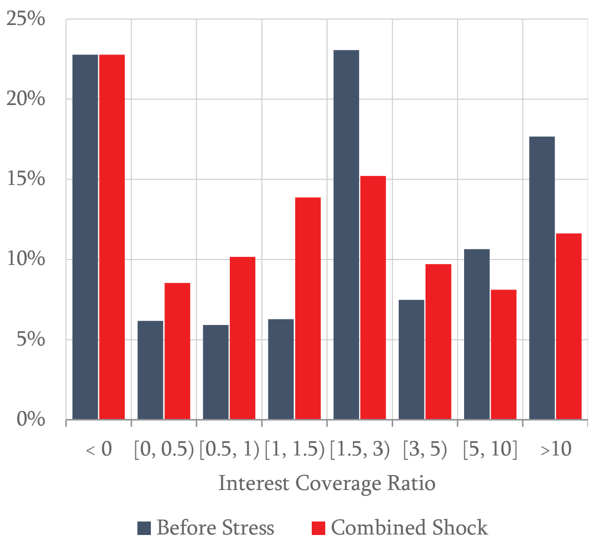
21 The interest coverage ratio is calculated as the ratio of EBITDA to gross interest expense.

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

It is also important to consider the distributional effects on the corporate interest coverage ratios caused by the selected shocks under the moderate risk scenario (see the Macro-Financial Risk Scenarios section of this report). As companies migrate from higher to lower interest coverage ratio ranges as a result of the realization of the selected combined shock, their debt servicing ability deteriorates. If their coverage ratio falls below one, companies can no longer service their debt using the cash inflows generated from their operational activities – a situation commonly known as debt at risk. When companies enter this zone, their credit risk surges. This can induce systemic issues since commercial banks have sizable exposure to the liabilities of non-financial corporations. Under the moderate risk scenario, the combined shock causes a substantial increase in the debt-at-risk category: the asset-weighted share of companies with an ICR of below one increases from 35% (as of 2019) to 42% (see Figure II.30). Furthermore, under the combined shock, the share of companies within the medium-risk zone also increases considerably.

To sum up, under the moderate risk scenario, due to the greater-than-anticipated deterioration of macro-financial conditions and the materialization of vulnerabilities associated with the characteristics of corporate debt, the share of companies with debt at risk rises by 7 percentage points and reaches 42%.[23] Realization of credit risk of this size could result in severe stress with grave repercussions for the financial system and the overall economy. In order to alleviate the adverse consequences, companies should more actively engage in market risk management. In addition, the anti-crisis programs implemented by the National Bank of Georgia and the government, especially the measures designed to mitigate liquidity and credit risks, are crucial to alleviating the major sources of vulnerability among companies.

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



Source: SARAS, NBG staff estimates

23 Asset-weighted share.

Real Estate

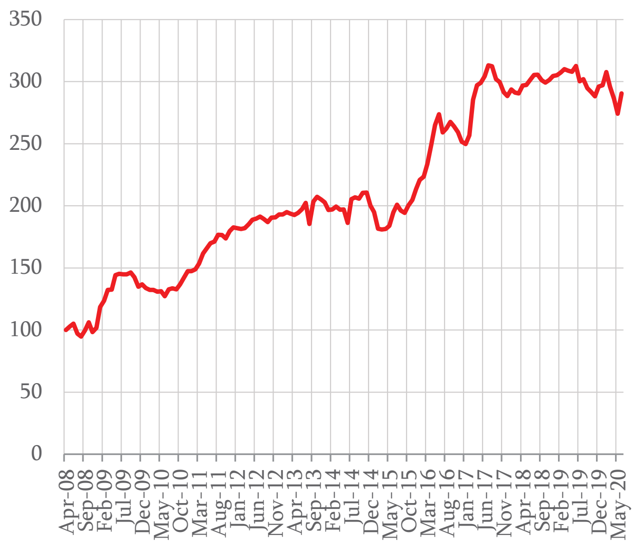
The COVID-19 crisis has increased risks in the real estate sector. The fall in household incomes and increased uncertainty have caused a significant reduction in demand for residential real estate. Furthermore, due to the sharp reduction in tourist flows, the attractiveness of real estate as an investment asset has declined, which has had an additional negative impact on the demand for real estate, especially in the region of Adjara. Moreover, it is important to note that the supply of residential real estate increased before the current crisis, which raises the probability of a realization of over-supply risk. Real estate prices are falling as demand declines and market uncertainty increases. However, the reduction in prices will not be as sharp as that which followed the 2008 crisis because of the increased resilience of the real estate market. In addition, measures outlined by the government will help the market to mitigate the negative effects of the recession.

Closely monitoring the property market in the context of the global recession caused by the COVID-19 virus is particularly important from the financial stability perspective. Compared to the global financial crisis of 2008, Georgia entered the current crisis with a healthier real estate market: there was an absence of a "price bubble" and relatively more balanced supply and demand. Nevertheless, in light of the experience of the 2008 global financial crisis, the monitoring of loans to this sector is of particular importance. The real estate sector is connected to financial stability through two main channels: mortgages and loans to construction companies. A sharp decline in property prices can have a significant negative impact on the asset quality of banks and impose risks to financial stability.

Demand for residential real estate has decreased significantly as a result of the recession caused by the pandemic. As a result of the crisis, some households have had their incomes completely or partially reduced, which has been reflected in decreased access to real estate (see Figure II.31). At the same time, uncertainty in the property market has forced those households who have retained the same income to postpone the purchase of property. In addition, the capitalization index, which is a measure of the attractiveness of real estate as an investment asset, has decreased (see Figure II.32). Consequently, in the second quarter of 2020, compared to the previous period of last year, real estate transactions declined by 65% in Tbilisi and by 64% nationwide (see Figure II.33). In addition, the restrictions imposed to prevent the spread of COVID-19, in particular the remote operation of Justice Halls nationwide, had a significant negative impact on market activity. It is important to indicate that the majority of households' income is in

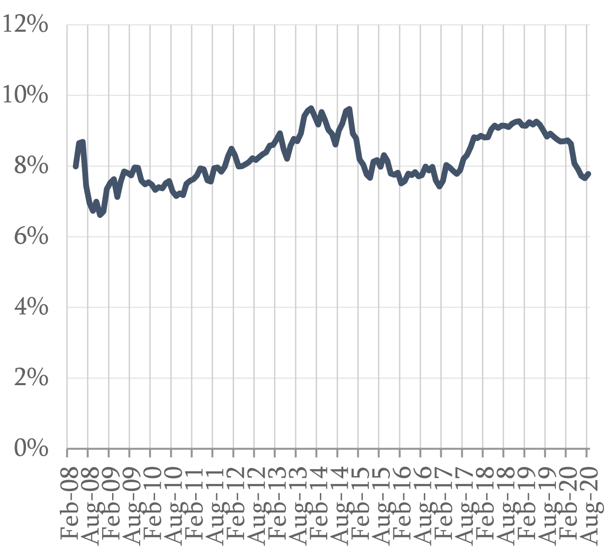
24 The house affordability index is based on the wage-to-payment ratio, which takes into account property prices, the maturity of mortgage loans, interest rates and average wages.

Figure II.31. House affordability index (2008=100)[24]



Source: NBG

Figure II.32 Capitalization index (rent-to-price ratio)



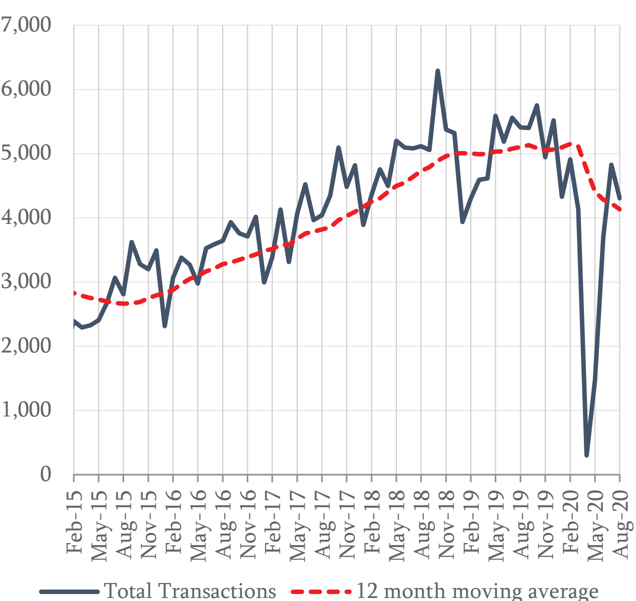
Source: NBG

the national currency, while according to common market practice the pricing of real estate is in USD. Exchange rate fluctuations thus further increase uncertainty and negatively affect market activity. It is expected that the demand for real estate will start to grow with the reduction of uncertainty and the elimination of the negative consequences of the crisis.

As the investment attractiveness of property declines, demand will also fall – especially in Batumi. A significant part of the demand for real estate in Batumi is of an investment nature, which is largely determined by tourist inflows. This makes the Adjara region particularly vulnerable. Due to the pandemic, restrictions on air and land travel have sharply reduced tourist flows for an indefinite time. As a result, it is expected that demand for real estate in Batumi will fall significantly, which will probably be reflected in lower prices. It is important to note that that the recovery of this sector will largely depend on the improvement of the epidemiological situation, and the depth and duration of the recession. In addition, non-residents, who account for almost one-third of mortgages, are likely to have a higher probability of default compared to residents, especially when neighboring countries are also experiencing a recession caused by the pandemic. In order to reduce this risk to financial stability, in 2019 the NBG set the LTV requirements at 70% for non-residents.

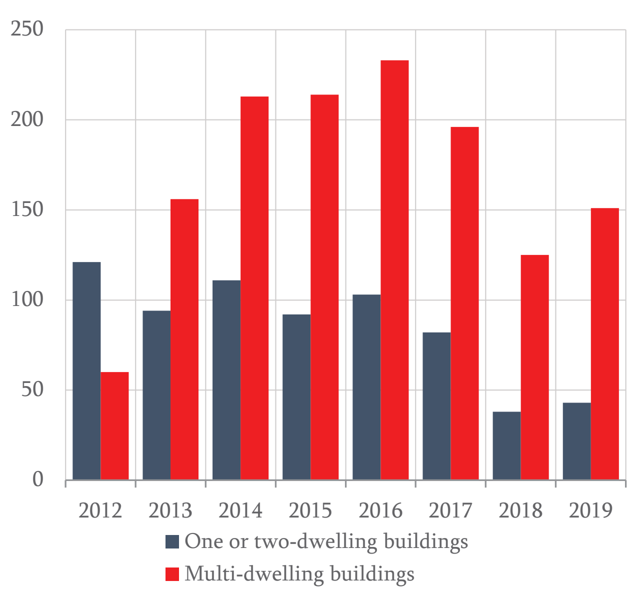
Prior to 2018, a high number of construction permits were issued. This increases the likelihood of the risk of oversupply being realized in the current period. Since 2012, the number of construction permits issued increased substantially, but fell significantly as a result of the construction regulations adopted by Tbilisi City Hall in 2018. The amount of permits issued in 2019 decreased by 30% compared to 2017, but increased by 19% compared to 2018 (see Figure II.34). As it was noted in the previous Financial Stability Report[25], the risk of oversupply is a significant challenge to financial stability as it could lead to “fire-sales” by developers facing financial difficulties. This would negatively affect property prices and reduce the quality of the mortgage portfolio. This risk is currently particularly significant in terms of financial stability as a result of declining demand and growing uncertainty. However, on the other hand, due to uncertainty in the market, the implementation of new projects may be reduced or delayed, which would reduce the supply of real estate in the medium term and have a positive impact on the sale of already built apartments.

Figure II.33. Number of housing transactions



Source: National Agency of Public Registry

Figure II.34. Number of construction permits issued



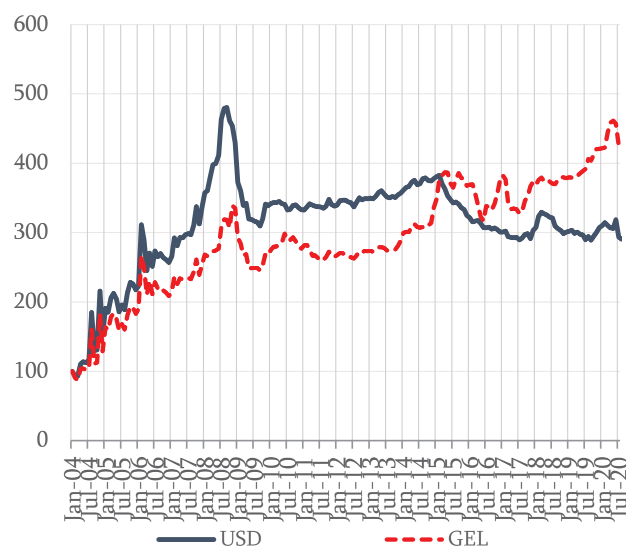
Source: NBG

This, in turn, would reduce the risk of oversupply and lower the likelihood of a sharp drop in prices.

25 See https://www.nbg.gov.ge/uploads/publications/finstability/finstability_2019_eng_publish_3.pdf

Real estate prices are falling due to decreased demand and increased uncertainty in the market; however, prices will not fall as sharply as they did after global financial crisis of 2008. Unlike in 2008, in the pre-crisis period of the COVID-19 pandemic no "price bubble" was observed in the real estate market, demand and supply were relatively balanced, and the market capitalization rate had improved (see Figure II.35). Based on these factors, according to a survey conducted in June this year, representatives of the real estate market expected a 5% reduction in real estate prices in the national currency over the next year. This decrease is less than the rate recorded after the global financial crisis in 2008: in 2009, compared to 2008, property prices in USD fell by 21%, while falling by 12% in the national currency. With the elimination of the negative effects of the crisis and the intensification of the sector, it is expected that downward pressure on real estate prices will be eased; however, this will depend on the depth and duration of the crisis, and the expectations of economic recovery.

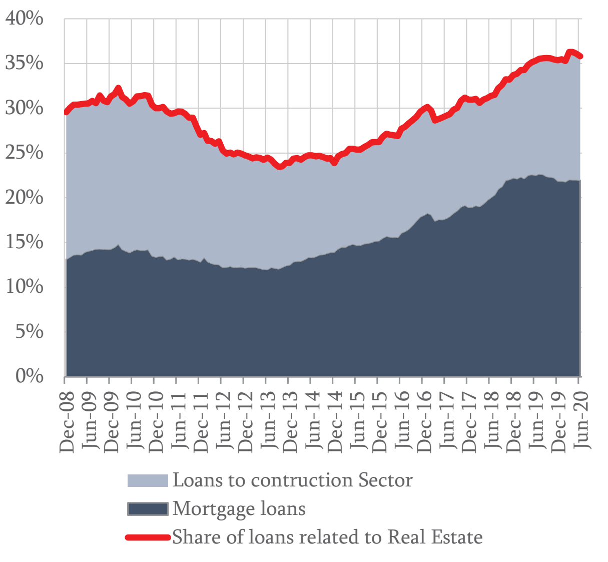
Figure II.35. House Price Index



Source: NBG

The various measures simultaneously taken by the government will help mitigate the negative effects of the crisis in the real estate sector. In particular, a 4% interest rate subsidy on mortgage loans up to 200,000 GEL was provided, which will last for five years after the loan is taken. Furthermore, for loans issued from 1 June 2020 to 1 January 2021, the state guarantee of loan default was set at 20% of the volume provided by the mortgage agreement. This, on the one hand, will prevent a sharp decline in access and demand for real estate, and, on the other hand, will reduce risks to the mortgage portfolio. In addition, a one-time purchase of already constructed residential real estate worth 150 million GEL will be made to meet the needs of IDPs, which reduces the likelihood of a realization of the risk of oversupply. In addition, in order to reduce the risk of unfinished construction projects, a 200 million GEL guarantee scheme has been outlined that will help prevent a deterioration of the quality of the loan portfolio issued to real estate development companies.

Figure II.36. Loans related to real estate



Source: NBG

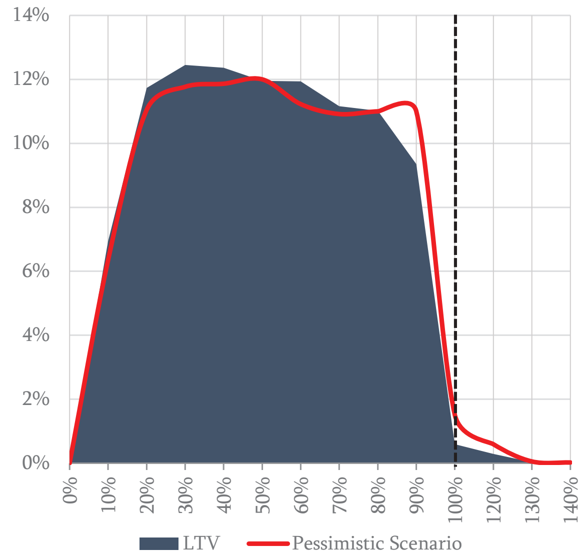
Amid the current crisis, the business cycle is in a downward phase, which reduces demand for commercial real estate. Due to the scarcity of data, it is difficult to forecast commercial real estate prices; however, economic activity has declined sharply during the crisis, which is a major fundamental factor in the demand for commercial real estate. As a result, sale and rental prices for commercial real estate are falling. With the elimination of the negative effects of the crisis, it is expected that demand for commercial real estate will begin to grow at a slow pace. In addition, it is important to note that due to the pandemic, much business activity has shifted to remote work. It is expected that even after the epidemiological situation improves, some economic activity will continue to operate remotely, which will reduce demand for commercial real estate in the future.

Banks' exposure to the construction and real estate sectors exceed those of the pre-crisis level in 2008; however, the decomposition of the loan portfolio has changed in favor of less risky loans. In the first half of 2020, compared to 2008, the share of mortgage loans in the total banking portfolio increased by 9 percentage points, while loans to the construction sector decreased by 3 percentage points (see Figure

II.36). It is important to indicate that mortgages, which are more granular, have lower default probabilities than loans made to developers and construction companies. It is expected that during the crisis the demand for mortgages and loans to the construction sector will decline. Furthermore, lower real estate prices impose additional risks to the quality of the banking portfolio. In addition, due to the mismatch between household incomes and loan currency, the high share of foreign currency loans in the mortgage portfolio imposes a risk to financial stability. However, as a result of the government's de-dollarization measures and the implementation of LTV and PTI limits by the National Bank, households' vulnerabilities to foreign currency risk have decreased. In terms of financial stability, it is important to note that the banking sector has met the current crisis prepared and well capitalized, which will mitigate the negative effects of the crisis.

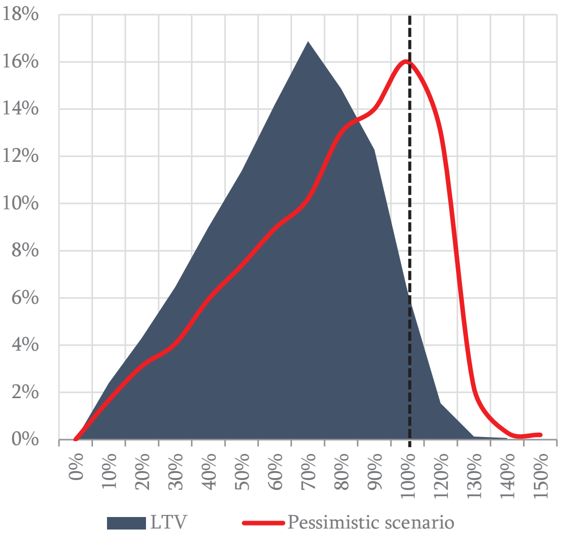
Although the banking sector has sufficient buffers to mitigate possible losses, in the case of severe scenario 23% of mortgages will have a LTV ratio of more than 100%.[26] In particular, in the event of a 5% reduction in real estate prices in GEL, for 2% of the mortgages issued in the national currency the LTV ratio will exceed 100% (see Figure II.37). If the national currency depreciates by 15% against the USD and euro, while real estate prices denominated in the national currency fall by 5%, 32% of mortgage loans issued in foreign currency will have a LTV ratio more than 100%, which is 24% higher than in the baseline scenario. Therefore, foreign currency loans carry a higher risk for the loan portfolio (see Figure II.38). In order to reduce this risk, the National Bank of Georgia set the maximum LTV ratio for foreign currency mortgages at 70% from 2019. In addition, according to the principles of the same provision, the encumbered real estate is only an additional link of protection against risks and the main precondition for loan repayment is the solvency of the borrower.

Figure II.37. Distribution of mortgage loans issued in the national currency by current and shock LTV ratios



Source: NBG

Figure II.38 Distribution of mortgage loans issued in foreign currency by current and shock ltv ratios



Source: NBG

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

Box 2. Supportive measures for financial sector sustainability and economic strengthening in response to COVID-19

Figure II.1. Balance of Payment inflows in Georgia

	Measures Taken	Purpose	Date
Macroprudential/ Supervisory Policy	Stimulation of grace periods on loans and a temporary change in reserving policy.	Alleviation of supervisory burden	03/2020
	Temporary moratorium on supervisory reforms and sanctions.	Alleviation of supervisory burden	03/2020
	Postponement of an increase in Tier 1 capital requirements scheduled for March (for the credit portfolio concentration buffer and net GRAPE buffer).	Supporting lending activity	03/2020
	Elimination of the capital conservation buffer (2.5% of risk-weighted assets) and a portion of the Pillar 2 buffer (2/3 of the currency-induced credit risk buffer).	Supporting lending activity	03/2020
	Suspension of the on-site inspection of entities under the NBG's supervision. Simplification of crediting procedures, according to which real estate estimation temporarily does not require on-site visits. Easing of the requirements related to updating financial statements.	Limiting the effects of the pandemic	03/2020
	Postponement of the regulation on "Credit Concentration and Large Risks in Commercial Banks" for one year. This should have been enacted from June 2020.	Supporting lending activity	04/2020
	Commercial banks shall not use the relief on capital requirements for dividends, share buybacks, equity investments or other types of distributions and payments that would cause a reduction of bank capital.	Promotion of financial stability	04/2020
Monetary Policy	Activation of swap instruments (400 million USD limits) for financial institutions, through which GEL liquidity will be provided to the system.	Supporting liquidity	04/2020
	Implementation of 14 foreign exchange interventions in the FX market estimated at 450 million USD. Activation of a new mechanism of interventions based on new rules.	Supply of foreign currency in the FX market	03/2020-09/2020
	Activation of the stand-by swap instrument, which enables banks to get necessary GEL liquidity in exchange for foreign currency at a penalty rate.	Supporting liquidity	04/2020
	Providing GEL liquidity to the European Reconstruction and Development Bank (EBRD) through swaps (200 million USD limits) enabling the EBRD to secure reliable access to GEL liquidity and continue lending in local currency to the private sector.	Supporting lending activity	04/2020
	Allowing commercial banks to use foreign currency buffers for GEL liquidity management and, by so doing, to maintain the total liquidity requirement.	Supporting liquidity	05/2020
	Enabling commercial banks to receive liquidity support from the National Bank against collateral of the SME loan portfolio.	Supporting liquidity	06/2020
	Enabling microfinance institutions to attract funding from commercial banks with the support of the National Bank within the limits of their SME loan portfolios.	Supporting liquidity	06/2020
	Reduction of the monetary policy rate by 1 pp in total.	Supporting lending activity	04/2020-09/2020

	Measures Taken	Purpose	Date
Government Policy	Issuance of an extra 600 million GEL of securities and depositing the derived sum in commercial banks as long-term deposits.	Supporting liquidity	04/2020
	In 2020, tourism-orientated businesses are released from property tax, while income tax is postponed until the end of the year. Granting subsidies to employers to maintain employment.	Supporting the tourism sector	04/2020
	Bulk purchase of residential real estate property worth 150 million GEL.	Supporting the real estate sector	05/2020
	Co-funding and grant programs for farmers.	Supporting the agricultural sector	05/2020
	For six months, the government will subsidize 80% of the loan interest for hotels with less than 20 million GEL turnover.	Supporting the tourism sector	05/2020
	The credit-guarantee sum allocated in 2020 amounts to 330 million GEL.	Supporting lending activity	06/2020
	The state subsidizes not over 4 pp of the nominal interest rate under a mortgage contract.	Supporting lending activity/ real estate sector	06/2020
	State guarantee of the mortgage credit portfolio for mortgage loans issued in 01/06/2020 – 01/01/2021.	Supporting lending activity/ real estate sector	06/2020

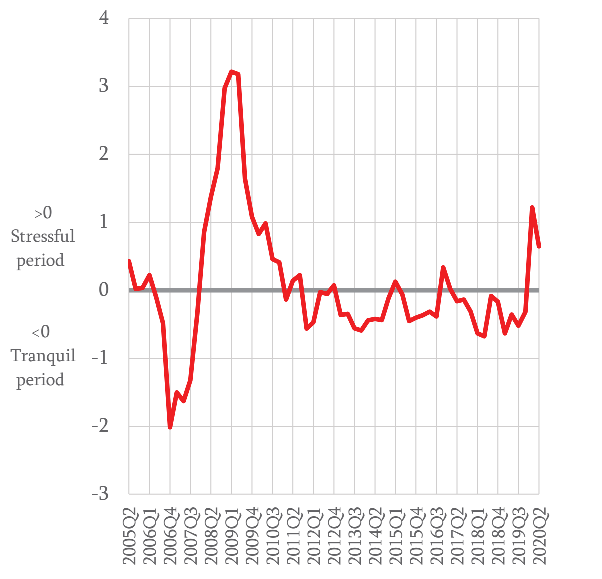
III. Financial Sector

Financial Sector review

The Georgian financial system remains resilient and, as a result of the successive supervisory policy of the NBG, has accumulated sufficient liquidity and capital buffers to mitigate the shocks caused by the COVID-19 pandemic. Due to the economic impact of the pandemic, it is expected that the share of non-performing loans will increase. However, commercial banks have made loan loss provisions in advance and the banking system has sufficient resources to continue providing loans to the economy without difficulties.

Both the real sector and the financial sector have been negatively affected by the COVID-19 pandemic. Although Georgia's financial stress index (FSI)[27] has increased, the current level is significantly below the level attained in 2008-2009 (see Figure III.1). Amid the slowdown in economic activity, losses and credit risk have increased in the financial market. As a result, in the second quarter of 2020, the FSI exceeded the historical average by about one standard deviation. The recession induced by the pandemic is different in nature from that caused by the global financial crisis in 2008-2009. The source of the current recession is neither the real sector nor the financial sector, but the restrictions imposed to prevent the rapid spread of COVID-19. From the third quarter of 2006 to the end of 2007, the FSI was significantly lower than the historical average, indicating over-optimism and the accumulation of excessive risks in the financial sector and the economy as a whole. As a result, from the beginning of 2008 to the end of 2009 the FSI surged dramatically (by more than three standard deviations in some periods) and reached a historical maximum; however, it is important to also consider the impact of the war against Russia on this increase. Unlike 2008-2009, the current increase in the FSI was not preceded by an accumulation of material risks.

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



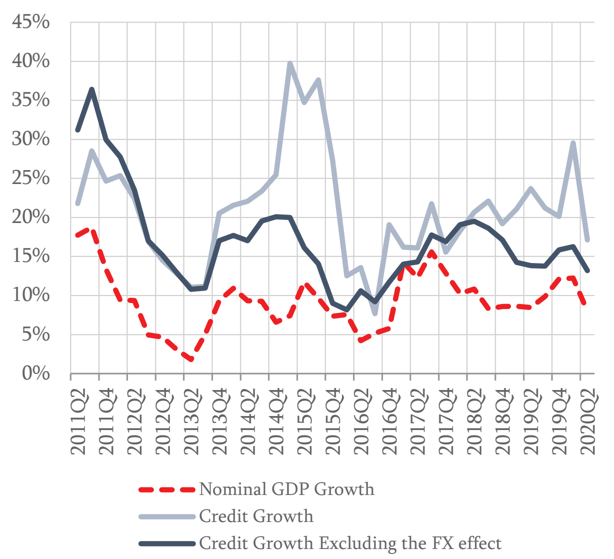
Source: NBG

27 Considering that the banking system accounts for more than 90% of the Georgian financial sector, the index mainly combines the profitability, interest rate spread, capital and asset quality indicators of the banking sector. The index is constructed by standardizing the variables and then weighing them.

Against the backdrop of the restrictions imposed due to COVID-19, the growth of loans has decelerated. In 2019, lending activity was high and the loan growth rate amounted to 16% at the end of the year (YoY, excluding the FX effect) (see Figure III.2). However, after the spread of the COVID-19 pandemic, lending activity declined significantly. If the tendency observed over the last several months continues, it is expected that loan growth will be in the range of 5-10%.

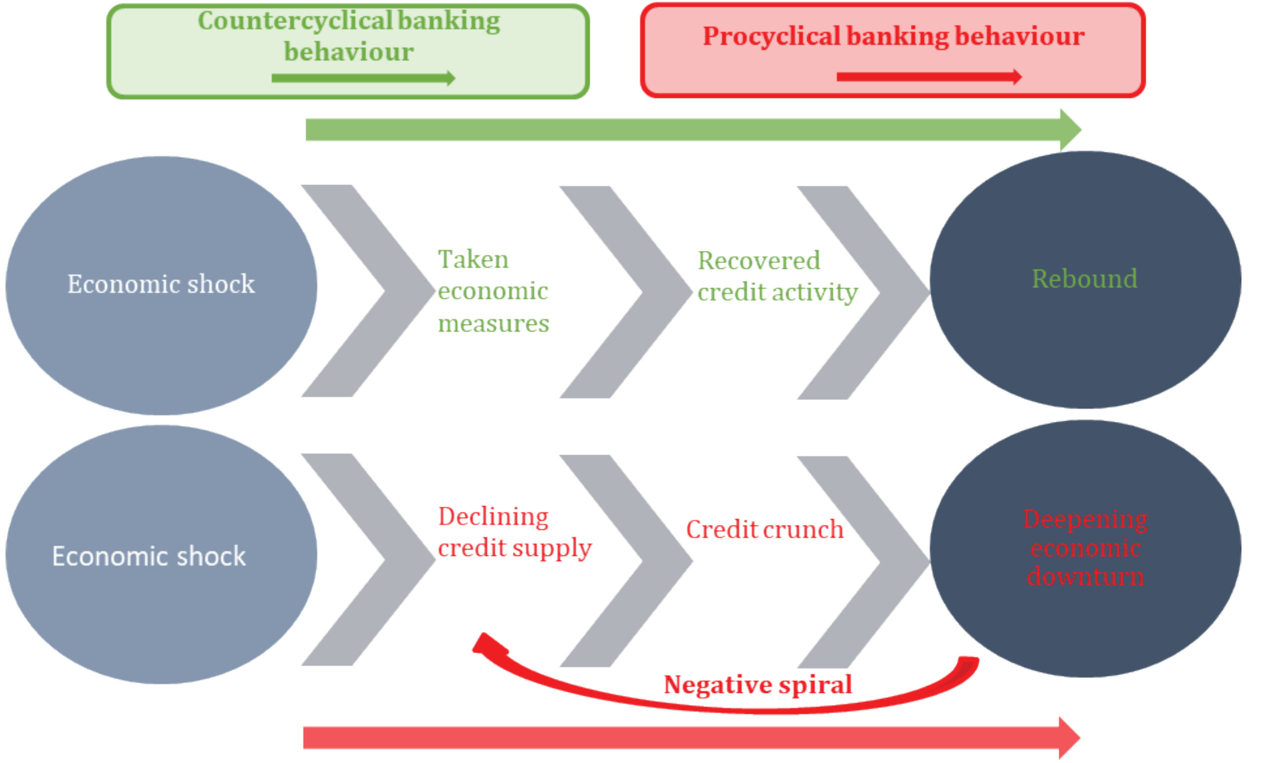
The fiscal and national bank measures introduced to mitigate the economic impact of the pandemic will stimulate lending activity. During an exogenous shock there is a slowdown in economic and lending activities. Because of expectations of potential losses, banks try to decrease the loan supply, which in turn lowers economic activity and thus reestablishes the negative feedback loop between the real economy and the financial system. By releasing capital buffers and activating instruments to provide liquid funds, the NBG has supported banks' lending capacity. At the same time, the state credit guarantee schemes and the state mortgage subsidy program will also stimulate lending activity (for more details, see the economic measures outlined in Box 2). As a result of the economic measures introduced, the economy will avoid a significant part of the procyclical negative spiral.

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



Source: NBG

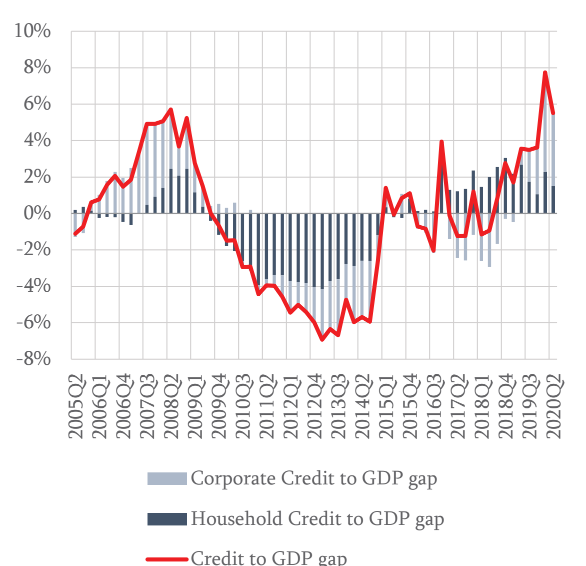
Figure III.3. The countercyclical and procyclical behavior of the banking system



Source: NBG

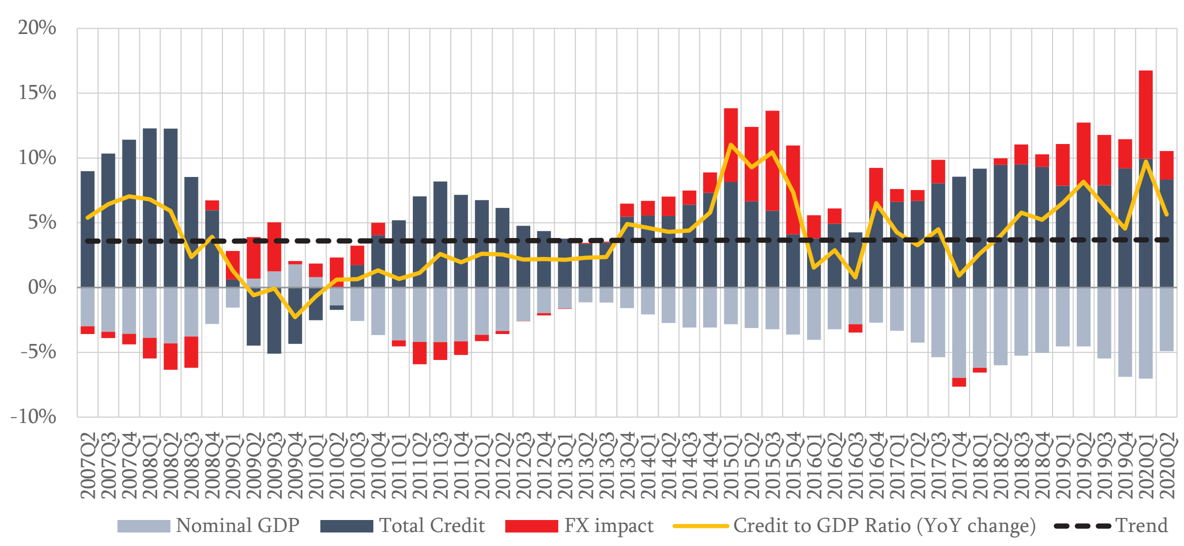
However, the credit-to-GDP ratio is still above the long-term trend.[28] The increased gap indicates the raised debt burden of borrowers and heightened vulnerability. Similarly to previous periods, in the current period the growth of loans exceeds nominal GDP growth, therefore the credit-to-GDP ratio is still above the trend (see Figure III.4). It has to be taken into account that, along with the higher growth of loans relative to the growth of nominal GDP, a significant portion of the positive gap is associated with the local currency depreciation (see Figure III.5). Over the recent period, the latter effect has continued to increase the debt burden of the household and corporate sectors. After the economic recovery, it is expected that the credit-to-GDP gap will gradually close in the long-term.

Figure III.4. Credit to GDP gap (%)



Source: NBG

Figure III.5. Decomposition of Y-o-Y change in credit to GDP ratio



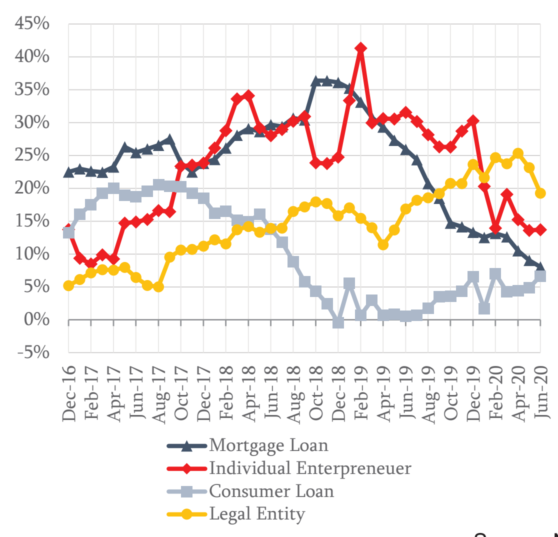
Source: NBG

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

As a result of the adoption of the regulation on responsible lending in 2019, high-risk retail loans were replaced with business loans. Compared to the previous year, in December 2019 the growth rate of loans to natural persons declined to 9.6%, while the growth rate of loans to legal entities increased to 24.3% (see Figure III.6). However, observing the amount of retail loans issued at a monthly frequency, it can be concluded that, after the implementation of new lending principles in 2019, individuals' accessibility to loans has not decreased significantly. The existing decline in loan availability was mainly driven by a reduction of "online" and "quick" loans that tend to be offered at excessively high lending rates. In some cases, default rates on such loans exceeded 10%, which increased households' financial vulnerabilities and credit risk. As a result of the implemented regulation, which includes payment-to-income (PTI) and loan-to-value (LTV) caps, the growth of loans was structurally changed and retail loans were replaced with business loans. Additionally, as new household loans are granted according to PTI and LTV coefficient caps, credit risk and vulnerabilities have significantly declined.

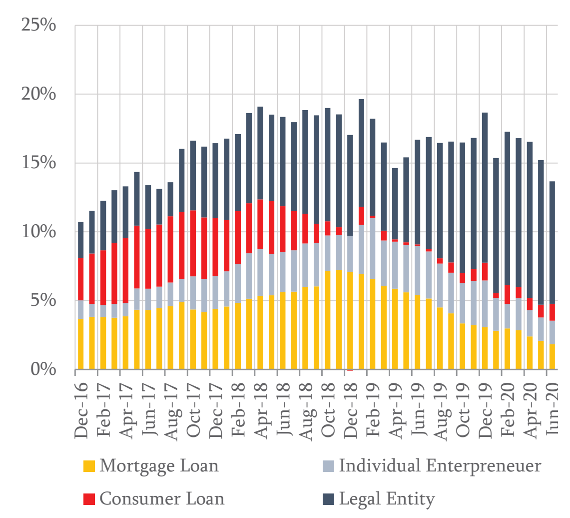
In 2020, the profitability of commercial banks is expected to be close to zero. Before the pandemic, the Georgian banking system was characterized by solid profitability. In 2019, the average return on equity (ROE) was close to 18%. However, as a result of the pandemic, net profit became negative and, in the first quarter of 2020, reached -747 million GEL, which is 1.5% of total assets (see Figure III.8). It has to be mentioned that the negative profit was a result of newly generated loan loss provisions, which were made in response to the negative expectations associated with COVID-19. After the pandemic, it is expected that banks will be able to recover their profitability thanks to high operating income. In addition, the various measures taken to mitigate the negative economic consequences of COVID-19 (see Box 2) will help profitability to improve. However, it is important that financial institutions do not accumulate excessive risks in order to make short-term profits.

Figure III.6. Annual growth rate of bank loans (excl. FX impact)



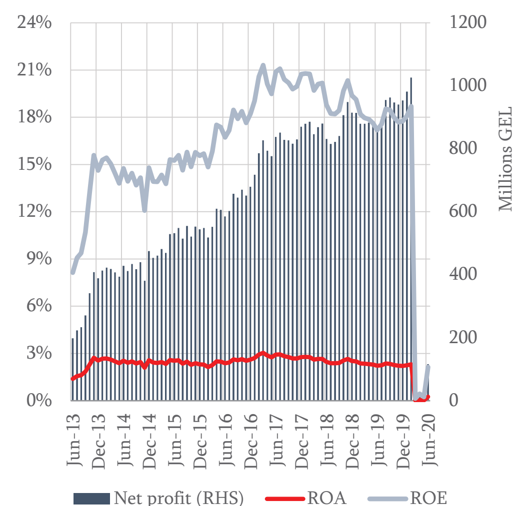
Source: NBG

Figure III.7. Decomposition of the annual growth rate of bank loans (excl. FX impact)



Source: NBG

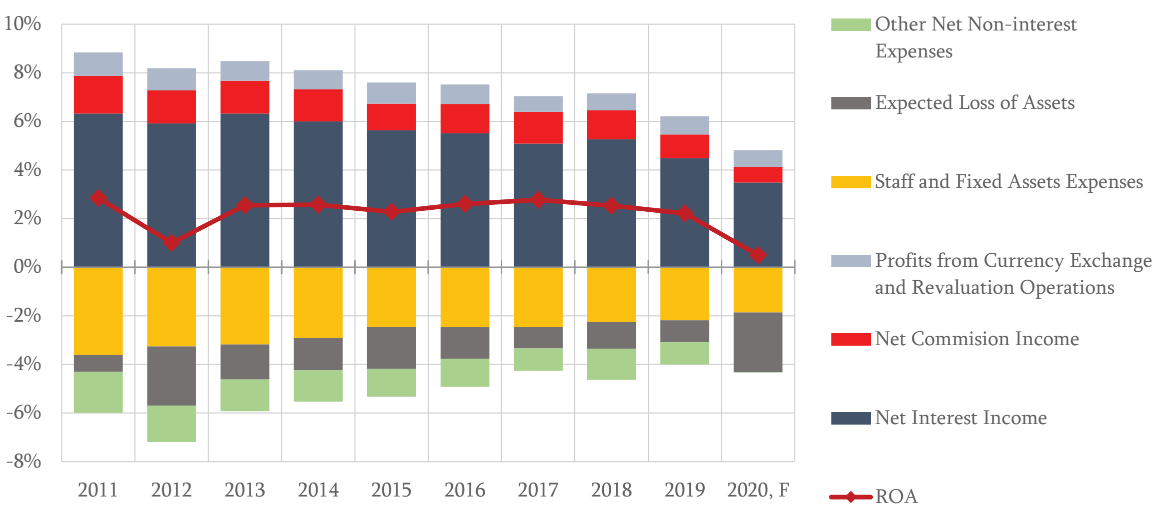
Figure III.8. Profitability in the banking sector[30]



Source: NBG

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

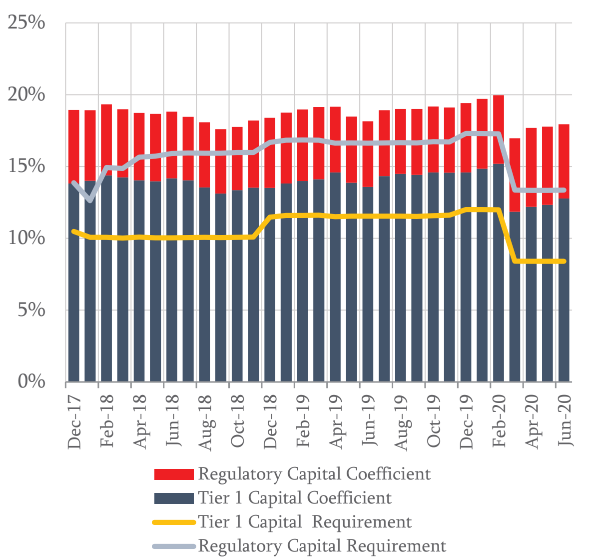
Figure III. 9. ROA decomposition for the banking sector



Source: NBG

The banking system was able to face the challenges resulting from the pandemic-induced economic recession with high levels of capital that had gradually been accumulated as a consequence of historically stable profitability and the enactment of supervisory requirements. Following the crisis of 2008-2009, the Georgian banking system was characterized by solid profitability that allowed banks to increase their capital adequacy ratios. At the same time, the NBG imposed additional capital requirements on commercial banks. Banks are required to meet minimum capital requirements of 4.5%, 6% and 8% for the Common Equity Tier 1, Tier 1 and Total Regulatory Capital requirements, respectively. Banks are additionally 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). Considering the historically solid profitability and capital requirements, in February 2020 Tier 1 and Total Regulatory Capital buffers amounted to 15.2% and 20% respectively (see Figure III.10), so the banking system was prepared to face the pandemic-induced recession with solid buffers. It should also be noted that, despite the reduction in capital requirements in response to the challenges resulting from COVID-19, the current capital ratios in the system exceed the pre-pandemic requirements. Moreover, the majority of commercial banks still maintain solid buffers (see Figure III.11).

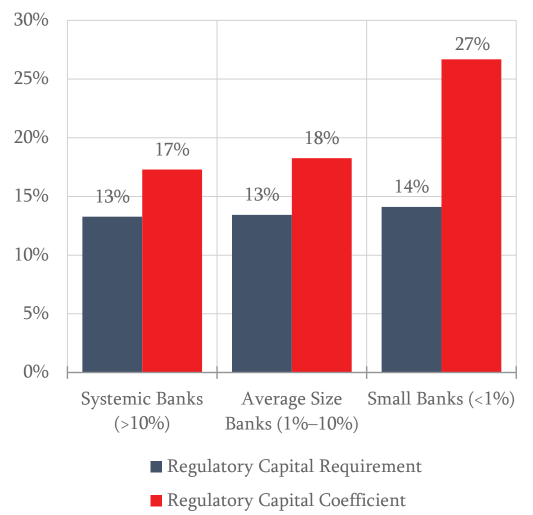
Figure III.10. Capital adequacy in the banking sector (Basel III)



Source: NBG

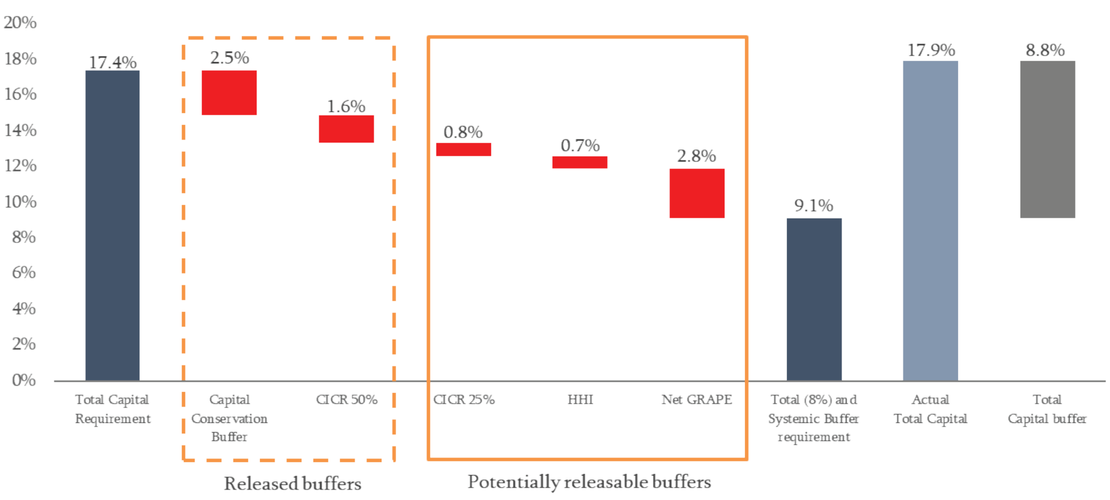
By releasing the capital buffers, the NBG enabled commercial banks to absorb potential losses through these buffers and to continue lending to the real sector. To reduce the impact of negative shocks resulting from the COVID-19 pandemic on the financial sector and to support lending activity, the National Bank of Georgia developed a temporary supervisory plan.[30] An important part of that plan implies the use of the capital buffers of the banking sector during times of financial stress. As a result of the supervisory plan, capital requirements were lowered, meaning that the capital conservation buffer (2.5% of risk-weighted assets) and a portion of the Pillar 2 buffer (2/3 of the currency-induced credit risk buffer) were eliminated (see Figure III.12). This supervisory relief freed up 1.6 billion GEL of capital, which can be used to absorb potential losses or fund the real economy. In addition, the increase in primary capital requirements that had been scheduled to come into force in March was postponed (for the credit portfolio concentration buffer and net GRAPE buffer, which is set in accordance with the NBG's General Risk Assessment Program and the assessment of banks' internal capital). The NBG also made the decision to leave the countercyclical buffer unchanged at 0%. This requirement will remain unchanged until the end of the year. Even in the event of the pandemic leading to a prolonged recession, the banking system will be able to absorb potential losses and continue lending to the real economy, because in addition to the minimum requirements the banking system holds 4 billion GEL of capital buffers that can be totally released if necessary.

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



Source: NBG

Figure III.12. Released and potentially releasable capital buffers for the banking system

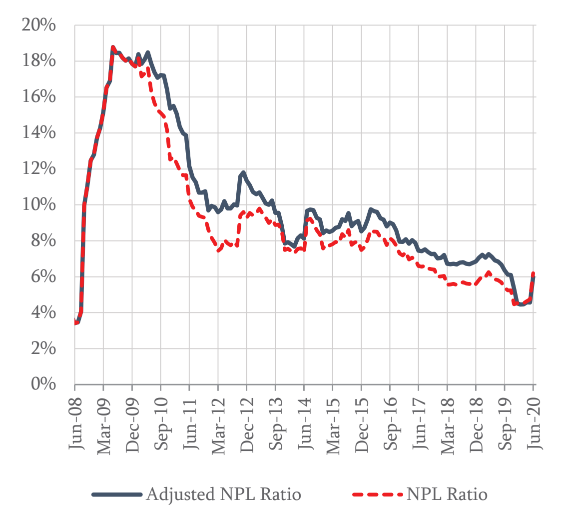


Source: NBG

30 For more details on this plan, see https://www.nbg.gov.ge/index.php?m=754&lng=eng

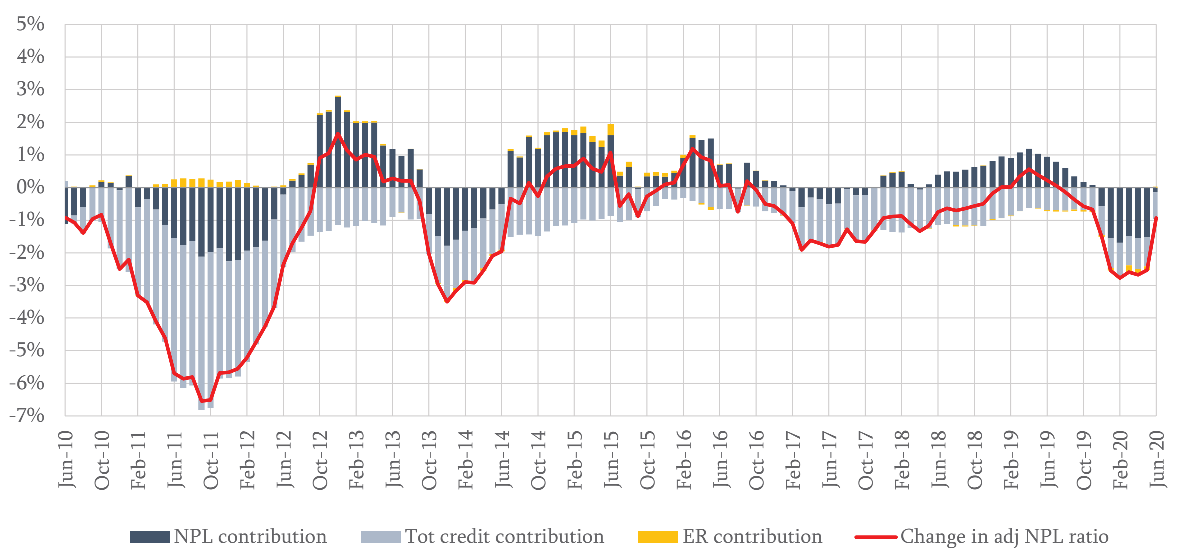
Since the responsible lending regulation entered into force in 2019, the quality of the loan portfolio improved significantly. However, in the wake of the COVID-19 pandemic, the share of non-performing loans is expected to increase. Compared to the previous year, in 2019, the non-performing loan ratio declined by 1 percentage point (see Figure III.13), which was a result of the improved loan portfolio quality stemming from the enactment of the responsible lending regulation. According to the decomposition of the annual change of the non-performing loan ratio, the decline in the ratio at the beginning of 2020 was mainly caused by decreased non-performing loans rather than loan portfolio growth (see Figure III.14). Also, as a result of the responsible lending regulation, the default rate declined and the ability of borrowers to overcome potential future financial difficulties improved.

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



Source: NBG

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



Source: NBG

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

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

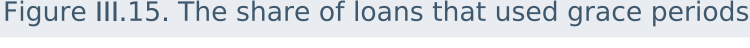
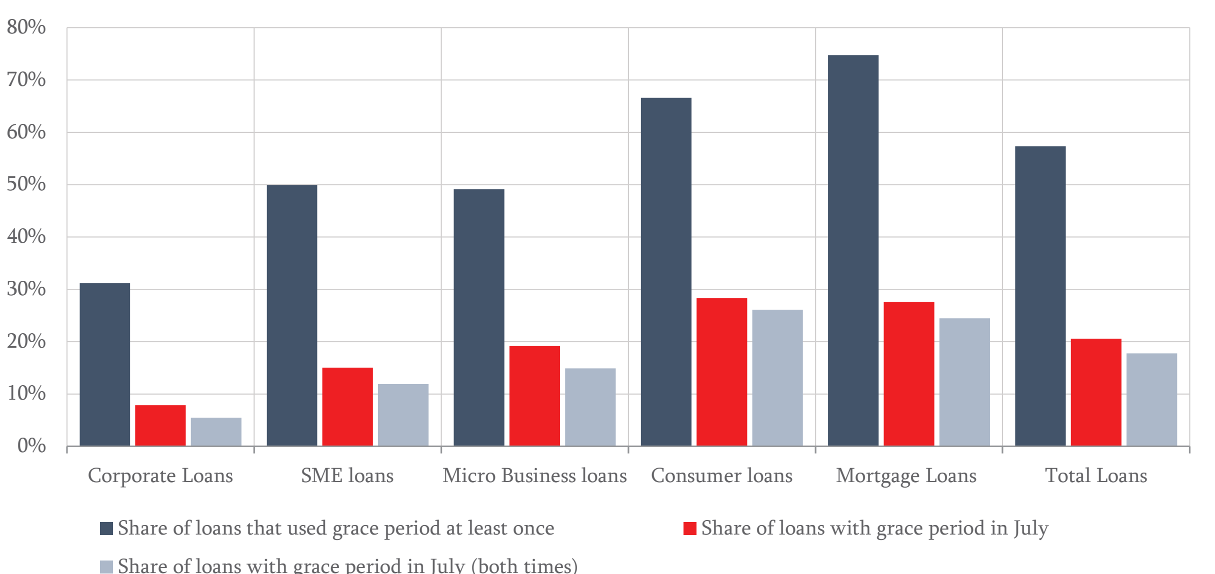


Figure III.15. The share of loans that used grace periods

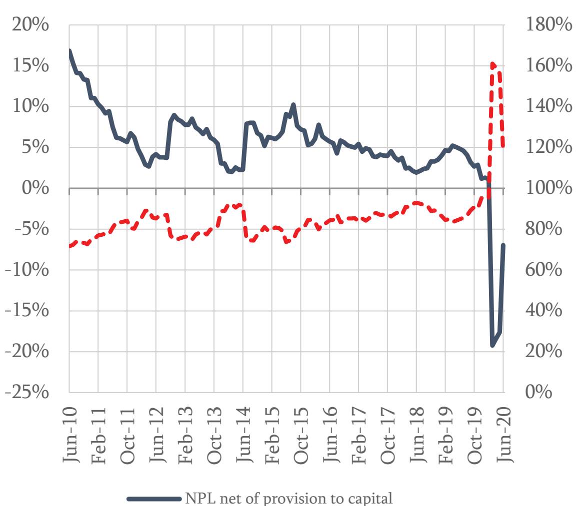


Source: NBG

However, due to the grace period on loan payments, the effect of the pandemic on the current quality of the loan portfolio has not yet been fully reflected. The grace period programs on loans offered by commercial banks has helped households and companies to avoid instant financial difficulties related to debt servicing. The first three-month grace period program on loan payments started in March 2020 and was designed for all borrowers who had difficulties in making loan payments. This program was mainly used by natural persons and included almost 70% of the retail portfolio. The second three-month grace period program started in June 2020, and commercial banks offered the program to individual consumers based on their needs. In total, 57% of the total loan portfolio was included at least once in the first three-month grace period program, and 21% of the loan portfolio was included in the second program in June. Also, 18% of the loan portfolio was included in both the first and second stages. This program significantly mitigated the negative impact of the pandemic and protected the country's economy from a further decline in demand. However, considering the government's credit guarantee schemes, it is expected that the share of non-performing loans will be around 10% over the next year.

The NPL coverage ratio remains at an adequate level. In historical terms, the NPL coverage ratio was at an adequate level. As a result of the generated loan loss provisions that in March amounted to 1.2 billion GEL the NPL coverage ratio edged up to 160% in April 2020 (see Figure III.16). However, this ratio does not fully reflect the effect of the pandemic on loan portfolio quality. In the event that the NPL ratio increases in the range of 10-15%, the loan loss reserves will be sufficient to maintain NPL coverage at adequate levels.

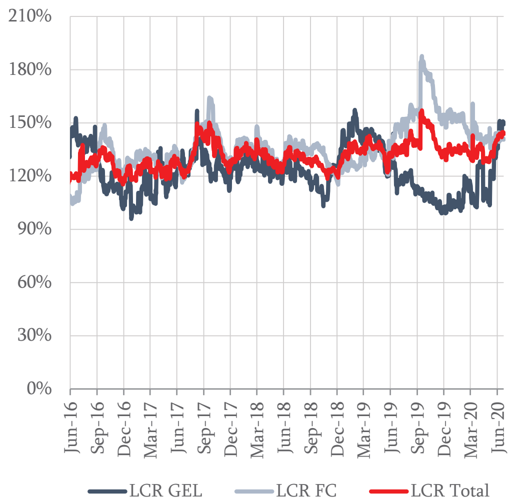
Figure III.16. NPL and provisions in the banking sector



Source: NBG

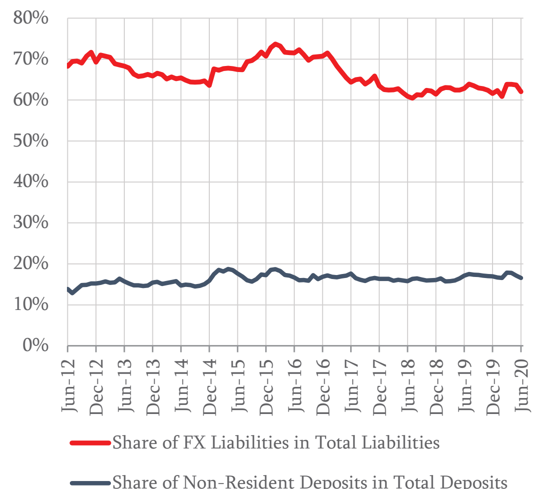
Despite the fact that liquidity risks have increased due to the pandemic, the measures taken by the NBG enable banks to maintain liquidity at adequate levels. Against the backdrop of the economic situation induced by COVID-19, natural persons and corporations both faced significantly increased demand for cash in the domestic currency. At the same time, as a result of the three-month grace period programs offered by the banks, the amount of cash inflows decreased. Moreover, the government used its funds held in commercial banks accounts to finance the costs of responding to the pandemic. Therefore, the financial sector started to have additional liquidity needs in the national currency. These needs were quickly satisfied by the NBG using existing instruments (see Box 2). It has to be noted that the liquidity coverage ratios (LCR) for the banking system in both the domestic and foreign currency significantly exceed the 100% requirements (see Figure III.17). Also, the net stable funding ratio (NSFR) is close to 132%, which enables dependence on short-term financing to be reduced and lowers refinancing risk. It should also be noted that, as a result of the pandemic, the risk of outflow of non-resident deposits has increased (the share of non-resident deposits as a proportion of total deposits is about 17%, see Figure III.18). However, this risk is partially neutralized by the fact that foreign interest rates declined relatively more than Georgian interest rates. Moreover, in response to the build-up of these deposits, the NBG introduced higher marginal liquidity requirements. Additionally, the share of term deposits in non-resident deposits is relatively high, which reduces the risk of deposit outflow, and the reserve requirements in foreign currency are higher than those in domestic currency, which considerably reduces systemic liquidity risk.

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



Source: NBG

Figure III.18. Liability structure

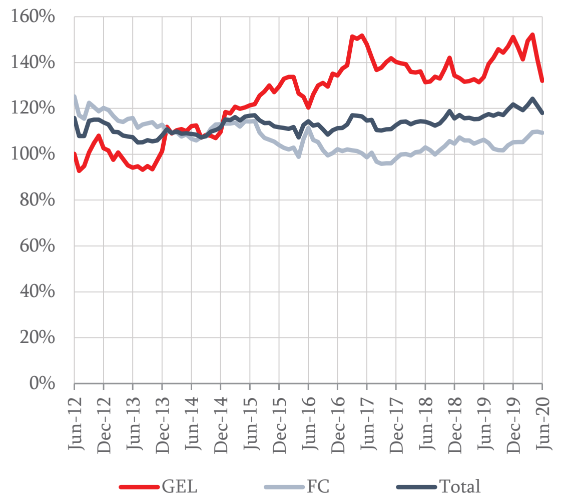


Source: NBG

In order to maintain sustainable growth in domestic currency lending, the banking system needs to accumulate more domestic currency deposits. Over the last several years, the growth rate of domestic currency loans has exceeded the growth rate of domestic currency deposits. In June 2020, the loan-to-deposit ratio amounted to 132% (see Figure III.19), meaning that as the economy recovers gradually, the banks will have to partially satisfy increased demand for loans by using borrowed funds. However, these are a less stable source of funding than deposits. It is remarkable that, with the exception of funds received from the NBG in the framework of monetary policy operations, the borrowed funds of Georgian banks are mainly long-term and mostly financed by parent or development-oriented international financial institutions, which reduces risk. However, even long-term instruments borrowed from abroad through market instruments are still accompanied by refinancing difficulties – some of which have surfaced in the current period. Therefore, the concentration of such financing is regularly monitored throughout the bank and systemic levels as part of the supervisory process. The loan-to-deposit ratio in foreign currency is in the range of 100-110%, indicating that loans in foreign currency are financed through relatively stable funds. In this respect, the liquidity risk in foreign currency is low. Given that the NBG is more flexible in supplying liquidity in the local currency, the stability of foreign currency funding is crucial.

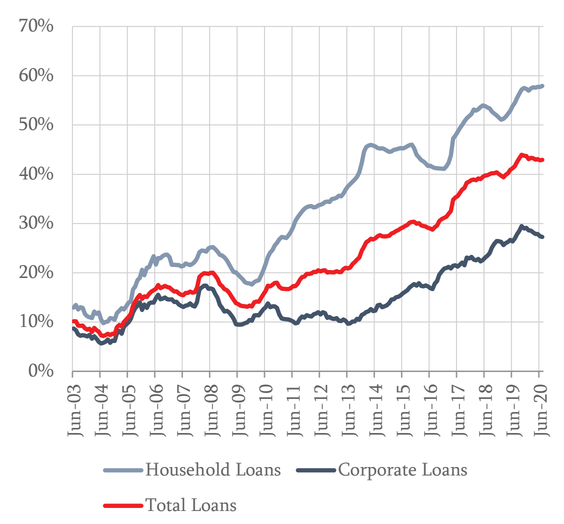
Despite a decline in recent years, the level of dollarization in the Georgian economy is still high and remains one of the main challenges to financial stability. Recently, the share of loans issued in the local currency has increased significantly, although the dollarization rate of loans is still high (see Figure III.20). Considering the fact that most borrowers are unhedged, the local currency depreciation caused by the pandemic has made banks face increased credit risk. However, in order to partially insure against currency induced credit risk, commercial banks are obliged to maintain an additional capital buffer for currency-induced credit risk. It is also noteworthy that in recent years the share of euro-denominated loans in total foreign currency loans has significantly increased, which makes interest rate risk and credit risk more sensitive to movements in the euro interest rate and exchange rate. However, due to this diversification, the vulnerability of the loan portfolio to one single foreign currency is reduced (see Box 3). The decrease in loan dollarization due to released capital requirements, will allow banks to increase leverage and therefore lending. In June 2020, the leverage ratio was at a high level, exceeding the minimal 5% requirement by 6.7 percentage points (see Figure III.21).

Figure III.19. Loan-to-deposit ratio



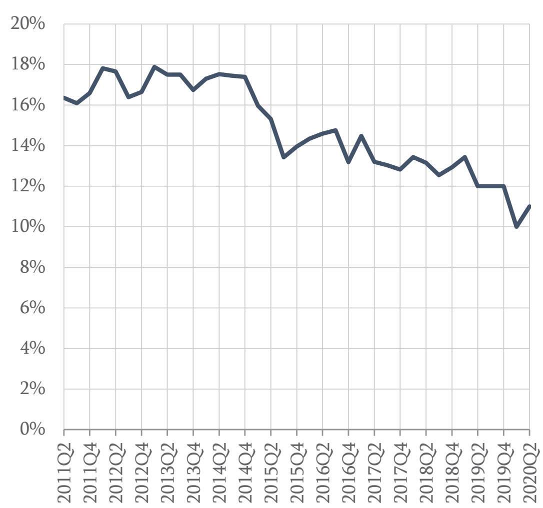
Source: NBG

Figure III.20. Larization at a fixed exchange rate



Source: NBG

Figure III.21. Capital-to-assets ratio for the banking sectorrate



Source: NBG

An increase in the share of floating interest rate loans reduces the interest rate risk for banks. However, in the event of a possible increase in interest rates, the credit risk in foreign currency rises more than that in local currency. Despite the recent global trend of monetary policy easing, if the economic cycle transmits to an upward phase, policy rates may increase abroad. The latter might be followed by a rise in the debt burden, which could increase credit risk as foreign interest rates might be negatively correlated to the Georgian economy. In contrast, any possible increase in the domestic interest rate coincides with the economic cycle, which reduces credit risk in the local currency significantly. Over the recent period, interest rates have tended to decline around the world, therefore the credit risk driven by foreign interest rates remains low. As of June 2020, the share of floating interest rate loans in foreign and domestic currency amounted to 42% and 36% respectfully.

Georgia's banking sector is highly concentrated, but this fact does not prevent competition in the market because interest rate spreads have tended to decline in recent periods. High concentration may create the problem of moral hazard among banks because it can generate misaligned incentives for systematically important banks that might expect interventions and assistance from the state and the National Bank in times of financial stress. Due to potentially misaligned incentives, banks may take excessive risks. Considering this, the NBG has set additional capital buffers for systematically important institutions.[33] On the other hand, high levels of concentration might be associated with low competition, leading to higher interest rates. However, in the case of Georgia, interest rate spreads have recently had a declining trend. Therefore, it can be concluded that high concentration does not prevent competition in the financial market.

In the beginning of 2020, in order to promote the sustainable and healthy development of the financial sector, the NBG developed a supervisory strategy document.[34] The purpose of this is to set the strategic priorities for 2020-2022 and to plan necessary activities for their fulfilment. The document enables the financial sector to forecast future events of the NBG, and it provides information regarding the supervisory priorities and goals of the NBG to investors, international financial institutions, rating companies, the public and other stakeholders. An important component of the strategy is the development of ecosystems for sustainable financial technologies, which will promote the emergence of healthy innovations in the financial sector. The latter is a necessary component for a sustainable financial sector.

Development of services based on new financial technologies, which tend to be more cost-effective and customer-centric, will promote competition and increase consumer welfare. In order to enable new entities to emerge in the financial sector and to encourage competition, 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. The mission of the financial innovations office is to promote responsible innovations in the financial sector and to help fintech organizations to understand and analyze the regulations of the NBG. The National Bank of Georgia has also developed a framework for a regulatory laboratory (sandbox), and in February 2020 published the first draft regulation on its establishment for public discussion. The sandbox will allow representatives of the financial sector to test innovative services and products in a supervised environment in real time. Additionally, the NBG is considering the elaboration of a licensing framework for digital banking, and will develop a methodology for this in the third quarter of 2020.[35] 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.

Due to the pandemic, the majority of commercial banks adapted to working remotely. This has exposed banks to heightened operational risk from both cyber threats and IT disruptions. Starting from the early stages of the COVID-19 pandemic, the staff of different companies, including financial institutions, started to work remotely. In so doing, they increased operational risks from potential cyber-security disruptions worldwide. According to the estimates, due to the pandemic, global cyber-attacks towards the financial sector increased by 38% in March 2020 compared to the previous month – a noticeable rise compared to other sectors.[36] However, in Georgia, despite the fact that a large portion of the staff of financial institutions started working remotely from home, cyber-attacks have not increased, only a small number of "phishing" cases were noticed. It should be noted that in 2019 cybersecurity requirements were introduced in the Georgian

33 See https://www.nbg.gov.ge/index.php?m=690.

34 See https://www.nbg.gov.ge/uploads/strategia/supervisory_strategy_eng_web_up.pdf.

35 See https://www.nbg.gov.ge/uploads/tsifruli_banki/licenzirebis_principebi_updated.pdf.

36 See https://www.bis.org/fsi/fsibriefs7.pdf.

banking sector, under which commercial banks are required to implement and regularly evaluate their cyber security controls. Additionally, the NBG created a structural entity of supervision, which aims to analyze and mitigate cyber risks in the financial sector. In 2019, total operational losses of commercial banks amounted to 22.4 million GEL, which was a 2% decrease compared to 2018. Also, 22% of the 22.4 million GEL loss was caused by external fraud. In 2019, total operational losses amounted to 0.7% of gross income (calculated using the Basel II methodology). Considering the situation created by COVID-19, it is expected that cyber-attacks will increase, and it is thus important that the financial system is prepared to deal with this potential threat.

As a result of the strengthened supervisory framework and enactment of the responsible lending regulation, non-banking financial institutions were also well prepared to face the challenges resulting from COVID-19 with an adequate level of capital and liquidity. Georgia has one of the highest levels of household accessibility to formal banking services in the world and the share of shadow banking remains low.[37] In 2019, the assets of the non-banking financial sector amounted to 2 billion GEL (of which 1.4 billion GEL belonged to microfinance organizations), which is 4% of the total assets of the financial sector. Partly as a result of the regulations enacted last year, by the end of 2019 the share of non-performing loans for microfinance organizations had almost halved compared to the beginning of the year – reaching 8.3%. Meanwhile, compared to 2018, in 2019 capital adequacy increased by 7 percentage points and amounted to 37%, which serves as an additional buffer against the negative shocks caused by the pandemic. In 2018, the NBG set liquidity requirements for microfinance organizations that will help them to provide financial services to customers without any difficulties, even in stressful conditions. Moreover, following the COVID-19 crisis, the NBG provided liquidity support to these organizations using different instruments (see Box 2).

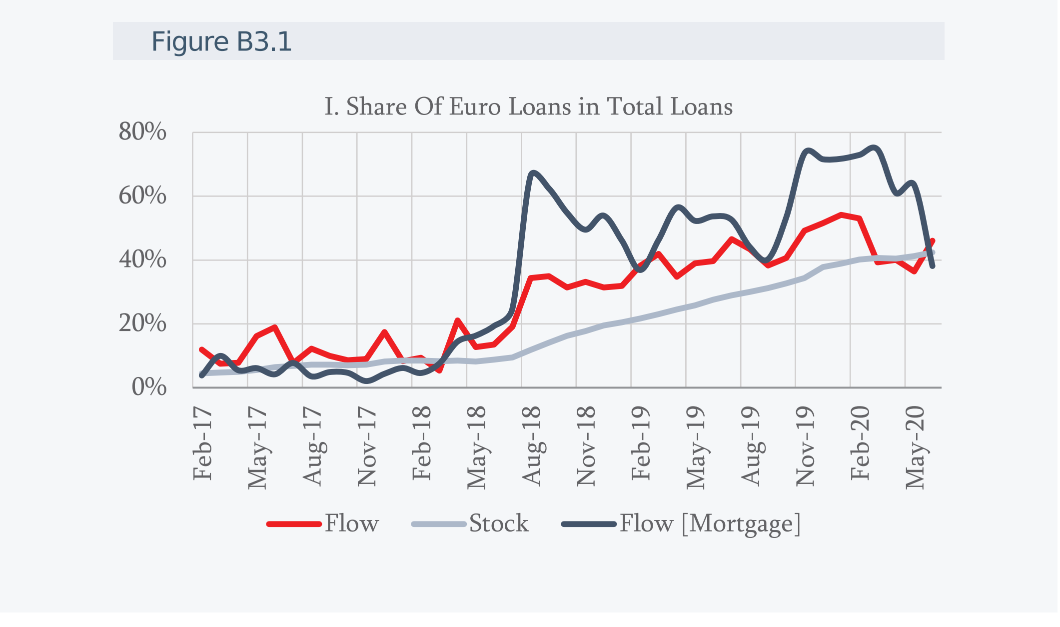
37 The source: https://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C&sId=1460055200236.

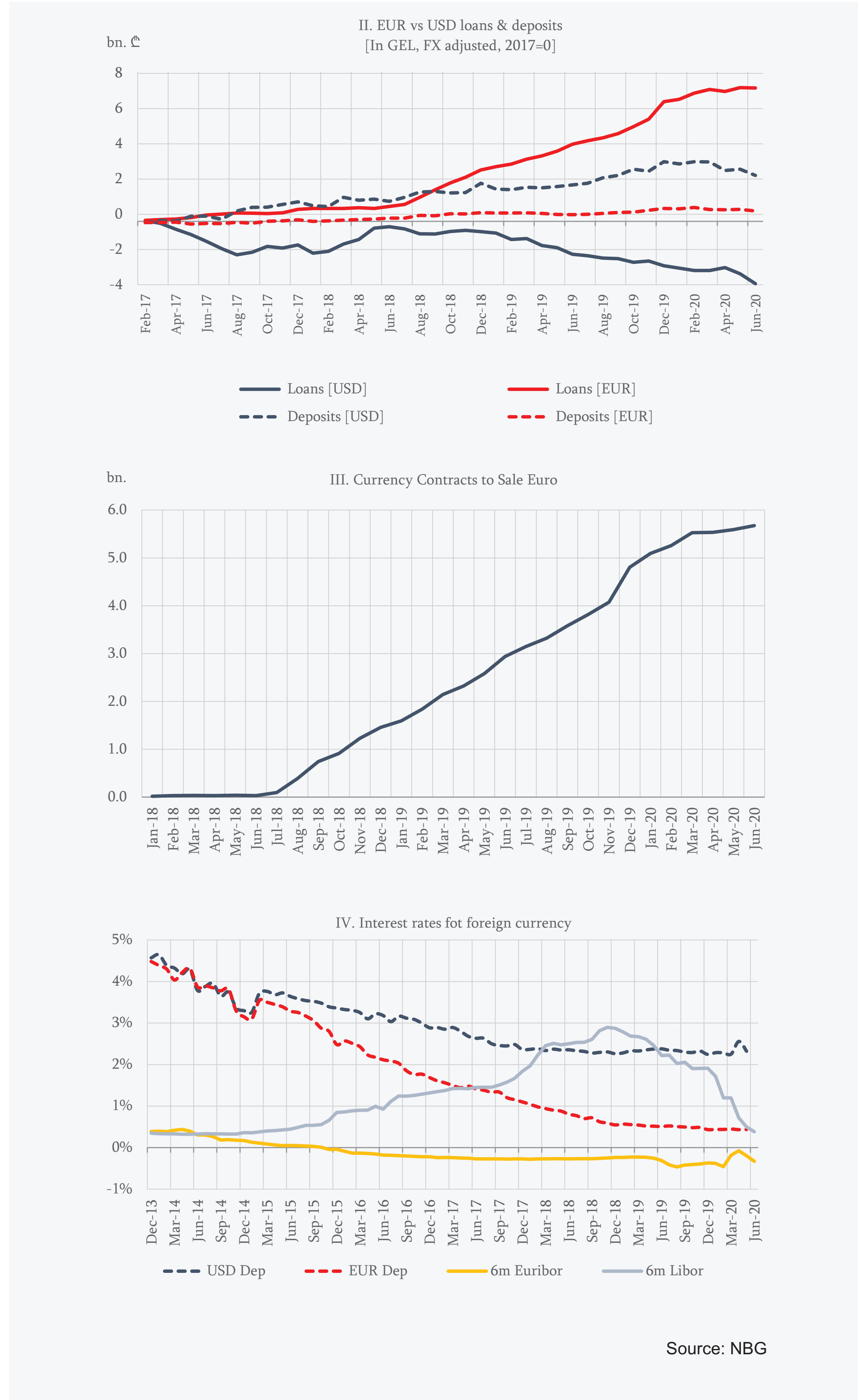
Box 3. The increase in the share of loans issued in euro in the total foreign currency loan portfolio

In recent years, a noticeable tendency has been identified in foreign currency lending. Before the summer of 2018, the majority of foreign currency loans were issued in USD; however, after that point commercial banks actively started issuing new loans in euro. In this period, the Fed tightened its monetary policy, which increased the value of USD in global markets, and therefore loans denominated in euro became more attractive for borrowers. There was especially high demand for mortgages denominated in euro, because the latter is relatively standardized, long-term product and consumers are more sensitive to changes in its interest rate (see Figure B3.1, I).

As a result of these dynamics, as of June 2020, the total amount of euro-denominated loans exceeded 7 billion GEL (see Figure B3.1, II), accounting for more than 40% of the total foreign currency loan portfolio. When taking euro-denominated loans, unhedged borrowers are vulnerable to exchange rate movements. Therefore, these loans are subject to the standard requirements for currency risk mitigation. However, it should be noted that the diversification resulting from a partial substitution of euro-denominated loans for loans denominated in USD in the foreign currency loan portfolio reduces currency risk in the financial system to some extent. Particularly for unhedged borrowers, in terms of debt servicing, risks arise not only from GEL fluctuations (in which most borrowers have income), but also from foreign currency (in which the loans are issued) movements in global markets. In the latter case, if the loan portfolio is diversified between euro and USD loans, the risks are reduced because the probability of a simultaneous global appreciation of both the USD and euro is smaller than the probability of the appreciation of just one of the currencies. At the same time, typically, the appreciation of the euro will be strongly connected to improvements in the economic conditions of the euro area, and these, because of Georgia's increasing economic convergence with the European Union (in terms of money transfers, exports, and income from tourism), are expected to have a greater positive influence on the Georgian economy than improvements of economic conditions in the US.

Figure B3.1





Source: NBG

The increase in the share of euro-dominated loans in the total foreign currency loan portfolio is accompanied by risks as well. Due to low interest rates, it is difficult for banks to attract stable sources of funding, while the volume of deposits in euro is small. Therefore, in order to finance the loans, banks, along with borrowed funds in foreign currency, actively use swap operations to convert USD deposits into euros. Currently, these kind of swap operations have amounted

to 5.5 billion GEL (see Figure B3.1, III). These transactions are mainly short term, negotiated with foreign banks and are tied to the interest rates of the euro and USD on international interbank markets. The complexity of interest rate risk management thus tends to increase, and banks are becoming more vulnerable to fluctuations in interest rates on international markets and to the variability of country risk premia. For example, in 2018-2019, the average spread between the USD Libor and Euribor exceeded 2 percentage points, which created the possibility for banks to have income from swap contracts and to grant euro loans relatively cheaply. However, due to the decline in interest in the dollar globally, in the current period this spread amounted to less than 1 percentage point (see Figure B3.1, IV). As a result, the income of banks from swap contracts declined, which caused euro funding to become more expensive and reduced the profitability of the low-interest, euro-denominated loans issued in previous years.

Due to the decline in the spread between the USD Libor and Euribor, the attractiveness of the euro against the USD has decreased. Therefore, all other things being equal, it is expected that the growth of the share of euro-denominated loans in the total foreign currency loan portfolio will be reduced. Moreover, the currently implemented regulation[38] concerning the management of interest rate risk in the banking book will improve the management of interest rate risk in banks.

38 For this regulation, see https://www.nbg.gov.ge/uploads/legalacts/fts/sabanko2020/4204.pdf.

Macro-Financial Risk Scenarios

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

Two risk scenarios are considered in order to capture the downside risks stemming from adverse global and regional developments. One of the scenarios reflects reasonably likely and moderately adverse outcomes, while the other corresponds to unlikely, but plausible, instances of severe stress. This approach permits 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 compared to a baseline, which is based on the NBG's macroeconomic forecast published in the August 2020 Monetary Policy Report.

The moderate risk scenario considers the spread of the COVID-19 pandemic at its current rate. This would necessitate existing containment measures remaining in place, thereby further reducing economic activity. According to this scenario, the development of an effective vaccine against the virus is delayed compared to current expectations. As a result, the current virus containment measures would have to be extended for an indefinite period. The prolonged restrictions on international travel, coupled with weak demand and the disruption of global supply chains, will lead to a greater-than-anticipated cutback in trade and investment flows. The restraints imposed on international labor mobility would cause a reduction in money transfers and lead to increased unemployment in the domestic labor market. Under this scenario, emerging market economies are particularly harmed by these developments as they exhibit higher external vulnerabilities and have limited fiscal space. In order to alleviate the adverse consequences of the pandemic, monetary policy remains eased in both developed countries as well as in developing nations. However, financial conditions are further tightened, especially in developing countries, reflecting deteriorated sentiment and looming uncertainty. The negatively revised expectations regarding the global economic recovery subsequently leads to a decrease in oil prices. This further impairs the recovery of oil-exporting countries, including those in the region.

In this scenario, given the current rate of the COVID-19 pandemic, expectations regarding the recovery of trade and investment flows during 2020 and 2021 are revised downward. The lowered expectations are coupled with uncertainty regarding the duration of the pandemic, which leads to capital outflows and a depreciation of the local currency. The sovereign risk premium increases further and the foreign currency denominated debt burden subsequently rises.

According to the moderate risk scenario, the virus containment measures reimposed within the country are more targeted and comparatively light, which is made possible due to the accumulation of experience regarding the management of the virus. However, these restrictions still cause disruptions to certain types of economic activity, leading to an increase in unemployment and a drop in household income. The uncertainty regarding the duration of the pandemic and its ultimate economic impact would induce delayed consumption and lower investment expenditures by households and businesses. Subsequently, the recession deepens and signs of economic recovery only start to emerge in the second half of 2021.

Against the backdrop of the deterioration of economic prospects in the moderate risk scenario, real estate prices drop substantially. A reduction in income, in the face of reintroduced containment measures, weighs on the debt servicing abilities of households and firms. Loan-issuing entities have no more room to offer additional grace periods to borrowers. Consequently, credit risk surges. This worsens access to loans and leads to an ever-deepening recession.

In the moderate risk scenario, the downward pressure on inflation caused by weak demand and reduced oil prices is more than offset by the increase in production costs due to the reintroduced containment measures and the hike in imported prices and intermediate costs owing to the local currency depreciation. As a result, headline inflation remains above the target throughout 2020 and 2021. In order to respond to the increased inflation expectations, monetary policy is kept tight for longer compared to the baseline scenario and starts to ease at a slower pace as the shocks dissipate. In this scenario, the cumulative drop in GDP growth

from the baseline is 5.5 percentage points over the three-year horizon.

The severe risk scenario considers a new wave of the COVID-19 pandemic at the end of 2020, necessitating the reintroduction of strict containment measures. In this hypothetical scenario, strict containment measures are reimposed for an indefinite period inside the country as well as in the rest of the world. The new wave of the pandemic and the accompanying uncertainty regarding its duration threaten the long-term viability of global supply chains. As a consequence, globally diversified production processes may shrink and there might be a surge towards within-country integration. This, in turn, will reduce FDI flows and have a particularly adverse impact on developing countries. For such countries, FDI flows are the main source of technological advancement and productivity growth. Therefore, a drop in FDI inflows will cause a deterioration of the long-term economic growth prospects for developing countries and this impact will persist even after the pandemic is over.

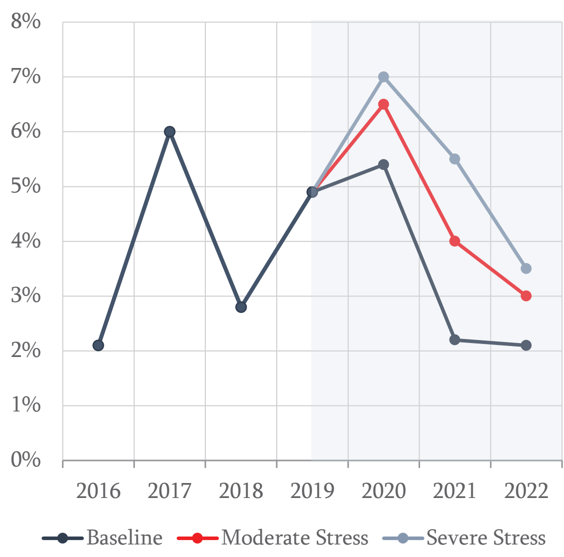
In the severe risk scenario, the potential growth of the economy is further undermined by the substantial adverse impact that the containment measures being imposed for an indefinite period will have on labor-intensive industries such as hospitality, services, trade and real estate. This leads to a sizable increase in unemployment. Persistent unemployment leads to an impairment of labor skills and thus to a further deterioration of long-term economic growth prospects. Meanwhile, in the face of reduced demand and restrictions imposed on economic activity, the debt-servicing issues that companies face are exacerbated by the limited possibility of debt restructuring. This ultimately leads to a substantial increase in defaults. Therefore, production capacity diminishes and further weighs on the deteriorated economic prospects.

According to the severe risk scenario, the deterioration of the macroeconomic fundamentals cause a fall in the sovereign credit rating, leading to a hike in the country risk premium and a further depreciation of the local currency. Consequently, there is a sizable increase in the foreign currency debt burden, which further restricts domestic demand. Due to the sudden financial stress and increased debt burden among borrowers, the financial sector suffers sizable losses. As a response, financial conditions tighten, contributing further to the economic downturn. As a result, economic growth deteriorates substantially throughout the forecast horizon. The prospects of economic recovery remain ambiguous even after the pandemic is over.

Figure III.22. Risk scenarios: annual real GDP growth (YoY)

Source: NBG staff estimates

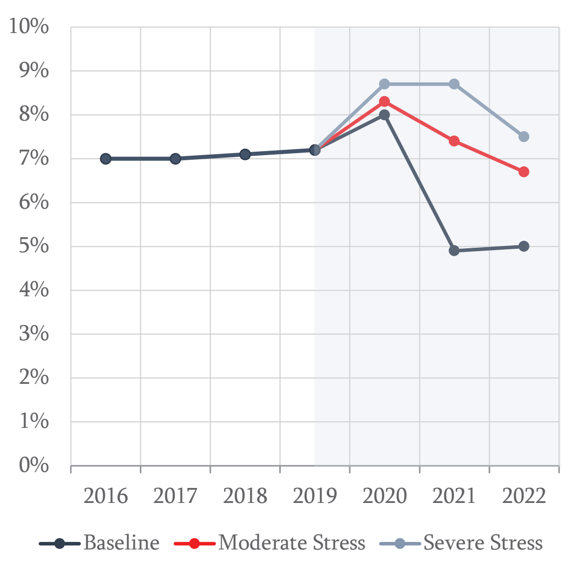
Figure III.23. Risk scenarios: average annual CPI inflation



Source: NBG staff estimates

In the severe risk scenario, the deflationary pressure stemming from reduced demand is weaker compared to the baseline scenario as the drop in demand is accompanied by a sizable deterioration in potential economic growth. On the other hand, there is a much larger increase in import prices and intermediate production costs due to the substantial depreciation of the local currency. Ultimately, headline inflation rises compared to its current level. In order to curb increased inflation expectations, monetary policy is tightened and then gradually starts to approach the neutral stance. In this scenario, the cumulative drop in GDP growth from the baseline scenario is 8.5 percentage points over the three-year horizon.

Figure III.24. Risk scenarios: annual average monetary policy rate



Source: NBG; authors' estimates

Table III.1. Macro-financial risk scenarios*

Variable \ Scenarios	Current value*	Baseline scenario			Moderate risk scenario			Severe risk scenario		
		2020	2021	2022	2020	2021	2022	2020	2021	2022
Fed Funds Rate	0.25%	+0.0 pp	+0.0 pp	+0.5 pp	+0.0 pp	+0.0 pp	+0.25 pp	+0.0 pp	+0.0 pp	+0.0 pp
ECB Policy Rate	0%	+0.0 pp	+0.0 pp	+0.25 pp	+0.0 pp	+0.0 pp	+0.0 pp	+0.0 pp	+0.0 pp	+0.0 pp
Country Risk Premium	6.0%	-0.0 pp	-1.5pp	-1.0 pp	+2.0 pp	-1.0 pp	-2.0 pp	+3.0 pp	+1.0 pp	-2.0 pp
GEL/USD Nominal Exchange Rate	3.07	Appr. 0%	Appr. 0%	Appr. 0%	Depr. 5%	Appr. 3%	Appr. 2%	Depr. 10%	Depr. 5%	Appr. 10%
Nominal Effective Exchange Rate Index (1995=100)	255.0	Appr. 0%	Appr. 0%	Appr. 0%	Depr. 3%	Appr. 2%	Appr. 1%	Depr. 6%	Depr. 3%	Appr. 6%
Change in Real Estate Prices (in GEL, YoY)	5.8% (2019)	+0.0%	+5.0%	+3.0%	-3.0%	+3.0%	+4.0%	-5.0%	+2.0%	+5.0%
Real GDP Growth (YoY)	5.1% (2019)	-5.0%	5.0%	4.5%	-7.0%	2.0%	4.0%	-9.0%	1.5%	3.5%
Unemployment Rate	11.6% (2019)	+3.0 pp	-1.5 pp	-1.5 pp	+4.0 pp	-1.5 pp	-2.0 pp	+6.0 pp	+0.0 pp	-2.0 pp
CPI Inflation (YoY)	4.9% (2019)	5.4%	2.2%	2.1%	6.5%	4.0%	3.0%	7.0%	5.5%	3.5%
Monetary Policy Rate**	8.00%	-1.5 pp	-2.0 pp	+1.0 pp	-0.0 pp	-1.0 pp	-0.5 pp	+1.0 pp	-0.5 pp	-1.5 pp

* The values under each scenario display the average change in the corresponding macro-financial indicators compared to the previous period. The numbers for 2020 show the change compared to the current values, which correspond to 31 July 2020 unless otherwise stated.

** The current value of the monetary policy rate reflects the Monetary Policy Committee's decision made on 5 August 2020. In the scenarios, the change in the monetary policy rate corresponds to the overall change 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. Despite high credit losses, banks have healthy operating profits and capital buffers, allowing them to maintain adequate capital levels even in the event of a realization of the severe risk scenario.

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 formulate policies aimed at ensuring the uninterrupted provision of financial intermediation services under stress conditions, limiting the duration of 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.

The National Bank of Georgia has enhanced its top-down stress-testing model with the support of technical assistance provided by the International Monetary Fund. In 2019-2020, the mission focused on widening the stress-testing model with the aim of better analyzing risks and developing satellite models. Satellite models were revised and calibrated separately for the household and corporate sectors, as well as by currency of denomination. This has improved credit risk assessment. Sectoral and currency specifications were introduced to project the impact of macroeconomic shocks on non-performing loans. In order to analyze interest rate risk, econometric models were calibrated for lending and deposit rates by currency of denomination, which helps better identify risks coming from interest rate fluctuations. In addition, the model was calibrated for projecting non-interest income. Furthermore, dollarization risks were fully incorporated into the model and the framework was adjusted accordingly to allow monitoring of on-balance and off-balance sheet components in detail. It should be noted that the NBG plans to recalibrate and further develop the satellite models as longer data series become available.

The risk scenarios are analyzed in the context of their impact on the main drivers of banks' capital adequacy ratios. To assess the solvency of banks, capital ratios were calculated by dividing forecasted capital by the projected amount of risk-weighted assets. The capital projection was calculated by adding the projected net income to current capital and subtracting the increase in stressed-induced provisioning. In addition, the change in assets due to credit losses and exchange rate fluctuations is considered when projecting risk-weighted assets. Similar to the European Banking Authority's (EBA) methodology, the stress testing is based on the assumption of a static balance sheet and does not assume any active response from banks or banking supervisors to the shocks in the system nor any change to business models. The stress test has a three-year horizon (2020-2023) and no maturity adjustments to assets and liabilities over this period are considered.

Despite losses, the banking sector maintains a capital ratio above the regulatory threshold in the baseline and moderate stress scenarios. Based on these scenarios, as a result of the recession and exchange rate fluctuations, households' and firms' abilities to service their debts deteriorate, regardless of a decline in the policy rate, and thereby credit risk rises. Alongside the increased risks, operating income declines and banks end the first year with a loss. However, in the following years, as the economy starts to recover, the quality of loans improve, profit gradually increases and, despite the initial deterioration, the banking sector's capital ratio remains above 19% at the three-year horizon, staying well above the regulatory minimum. It should be noted that all banks are able to maintain adequate levels of capital at the three-year horizon.

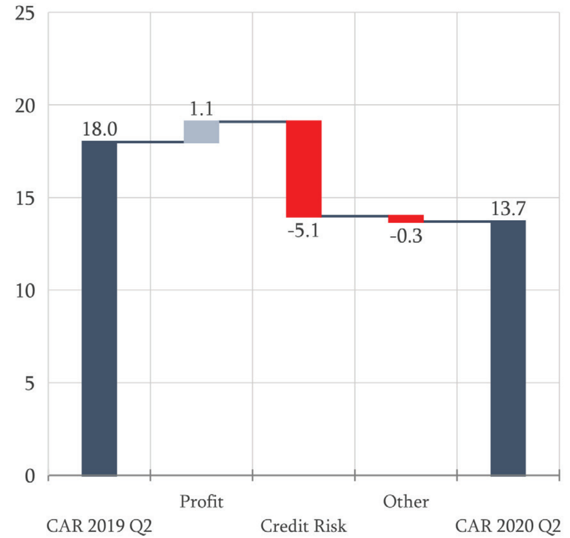
The severe risk scenario would impose significant losses on the banking sector, but the sector's overall capital ratio would remain above the regulatory threshold. Based on this scenario, the economic condition initially significantly deteriorates, the risk premium increases and the interest margin compresses, leading to lower net income. In addition, banks face sizable credit losses. During the one-year horizon, the overall income generated would increase the capital ratio by 1.1 percentage points, but this is overwhelmed by increased credit and other losses (of -5.4 percentage points) (see Figure III. 25). As a result, the capital ratio falls significantly in the adverse scenario. However, the existing capital buffers would ensure the mitigation of potential losses if this crisis scenario were to emerge. Nonetheless, some banks would reveal vulnerabilities and would need additional capital to maintain the minimum capital adequacy ratio. However, according to our evaluation, the banks' ownership struc-

tures would enable them to attract additional capital. Therefore, the capital loss identified under this scenario is not significant enough to constitute a risk to the sector's stability or resilience. It should also be noted that after the second year of the stress horizon, the capital adequacy of banks starts to gradually recover as a result of improved asset quality and stable operating profit (see Figure III.26).

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, the NBG will set additional stress test buffers for individual banks. Unlike the "top-down" stress tests, which are conducted by the NBG, the "bottom-up" stress tests are carried out by commercial banks following the scenarios and detailed methodology provided by the NBG (see Box 4). 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 obtained results for groups of borrowers with similar characteristics. While this approach is distinguished by simplicity, it is the best option when there is no long historical data series available; however, statistical modeling thereby remains highly risky.

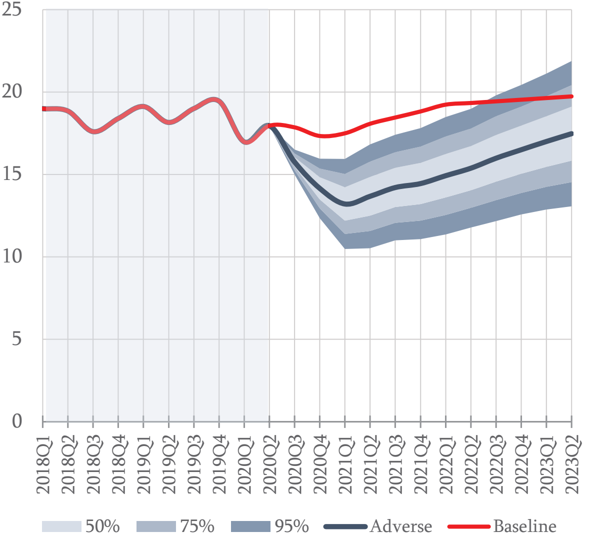
The development of the supervisory stress-testing framework is a priority and the NBG continues to work on its further improvement. One of the critical issues is that macroeconomic shocks have different impacts on borrowers and non-linearly affects their creditworthiness. In particular, in addition to the average drop in sectoral turnover, it is important to estimate companies' financial conditions that were more affected by the stress. This is evident during the current pandemic. As seen in Figure III.27, the average drop in vulnerable sectors was 50% for the first half of the year, but quite a lot of companies were affected to a greater extent or stopped operating. In coordination with commercial banks, the NBG reviews various approaches for efficiently estimating these risks. The results of these reviews will be incorporated in the methodology for the following round of stress testing.

Figure III.25. Decomposition of the change in the capital ratio of the banking sector in the severe risk scenario (%)



Source: NBG

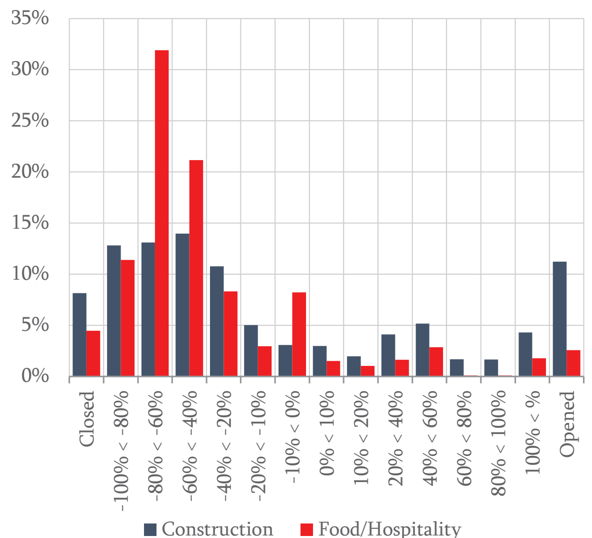
Figure III.26. Capital adequacy under the baseline and severe risk scenarios (%)



Source: NBG

It is noteworthy that regardless of the severity of the stress scenario, the estimated impact on asset quality is less than was recorded during the 2008-09 crisis. In particular, according to current calculations, while loan loss provisions will increase up to 10%, in 2009 credit losses amounted to 20% of the portfolio, accounting for write-offs.[39] This difference is driven by several factors. The annual growth rate of loans exceeded 60% before the global financial crisis, while after the shock a -15% decline was recorded and this lead to an increase in provisions to the total loan portfolio ratio by the denominator effect. In addition, the portfolio is currently much more diversified, whereas in 2008 the risk positions of banks were concentrated in procyclical sectors, such as real estate construction and development. At that time, the bursting of the real estate price bubble seriously affected the sector and increased risks for mortgage loans. Currently, as there is no evidence of a price bubble, the support programs initiated by the government will facilitate the sector overcoming the shock. Furthermore, healthy lending standards and improved risk management practices by banks decrease potential losses, and the provisioning approach is currently more forward-looking, improving the efficiency of projections and reducing procyclicality.

Figure III.27. Distribution of annual change of companies' turnover in the first six months of 2020 for selected sectors (%)



Source: GeoStat

39 See the 2009 National Bank of Georgia Annual Report.

Box 4: Bottom-up supervisory stress tests

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

The stress test compiled by the NBG implies that commercial banks should adjust their own data according to the model and relevant scenarios developed by the NBG to calculate stress test outcomes for a one-year horizon. The stress scenario is “L-shaped”, which means that the predefined stress continues through the full term of the loan and the future recovery of economic circumstances is not taken into account. The stress test is conducted on a static balance sheet, which means that the values of loans and other assets do not change over the period, and fully repaid assets/liabilities are substituted with assets/liabilities of same quality. Along with macroeconomic parameters, the scenarios include the distribution of shocks according to different economic sectors, which enables test outcomes to assess sustainability across sectors more precisely. Additionally, commercial banks are obliged to identify specific factors that, if changed, might have a significant effect on their financial positions.

Stress-test buffers are defined for each commercial banks according to the results of their supervisory stress tests. Use of such unified stress scenarios makes macro-prudential policies more future oriented, reduces reliance on historical data and improves comparability among banks. In 2019, according to the NBG’s methodology, commercial banks regularly presented the results of the stress tests they conducted. These showed that the banking sector in Georgia has a sufficient capital buffer to withstand economic shocks and to continue credit activity during downturns of business cycles so as not to endanger the financial system.

According to the severe scenario, there is slowdown in global economic activity because of shock. Regional countries experience a recession, the US dollar strengthens and interest rates rise due to an increase in the risk premium. For the Georgian economy, the following macroeconomic changes take place simultaneously:

- A 5% reduction in GDP (the sectoral distribution of turnover decline can be seen in Table B4.1).
- A 20% depreciation of the national currency against all currencies.
- A reduction of real estate prices by 30% in USD, which implies a 16% decrease in GEL due to currency depreciation.
- A 1 percentage point increase in interest rates on assets, and a 2 percentage point increase on liabilities.
- Employment is reduced by 5%.
- Employees face an income reduction of 5%.

For the purpose of stress tests, the commercial bank loan portfolio has been divided into the following categories:

- **Corporate and small/medium portfolio** (on balance, off-balance) – the group of borrowers with commitments/liabilities exceeding 1% of regulatory capital; each group should be subject to individual evaluation.
- **Corporate and small/medium portfolio** (on balance, off-balance) – the group of borrowers with commitments/liabilities less than 1% of regulatory capital; selectively assessed.
- **Micro business portfolio** (on balance, off-balance) – which is divided into two sub portfolios:

Table B4.1. Decline in turnover by risk sectors

Risk Sectors	Decline in Turnover
State organizations	5%
Financial institutions	5% / 10%[40]
Pawnshop loans (gold price reduction stress)	20%
Real estate development	50%
Real estate management	30%
Construction companies (non-developers)	25%
Extraction and trade of building materials	25%
Trade of consumer goods	5%
Manufacture of consumer goods	5%
Manufacture and trade of long-term consumption products	35%
Manufacture and trade of footwear, clothing and textiles	5%
Trade (other means)	5%
Production/Manufacturing (other means)	10%
Hotels and tourism	25%
Restaurants, bars, cafes and fast-food venues	10%
Heavy industry	5%
Loans for gas stations and gasoline imports	5%
Energy	5%
Car dealers	35%
Health care	5%
Pharmaceuticals	5%
Telecommunications	5%
Services	5%
Agricultural sector	5%
Other (scrap business and others)	5%

- The micro business portfolio on which a bank has conducted creditworthiness analysis (selectively assessed).
- The micro business portfolio on which a bank has not conducted creditworthiness analysis (assessed completely by the model).

- **Retail portfolio** (on-balance, off-balance) – which is divided into two sub portfolios:
  - The retail portfolio on which a bank has conducted creditworthiness analysis (selectively assessed).
  - The retail portfolio on which a bank has not conducted creditworthiness analysis (assessed completely by the model).
- **Gold pawnshop portfolio** – (assessed completely by the model).

For each of the selectively assessed portfolios, stratified sampling with a predefined confidence level was used. In the stratification process, the portfolios were divided into homogeneous subgroups according to the same risk profile characteristics (such as sector, product, collateral and currency), while taking into account the individual portfolio-specific factors of each bank. The corporate and small/medium portfolios were selected according to borrowers, while the

40 Portfolio default, GEL – 5%, foreign currency – 10%.

micro and retail portfolios were selected according to loans. The results from selectively assessed loans/borrowers were extrapolated to the corresponding portfolio.

Business borrowers were assessed by the debt service coverage ratio of each borrower or/and group of interconnected borrowers. Different approaches were applied for assessing financial institutions and real estate development companies. In the case of financial institutions, stress test effects were defined by using balance sheet (leverage) data, while real estate developer companies were assessed by the debt service coverage ratio calculated based on a specific project. The retail and micro business portfolio on which a bank has conducted creditworthiness analysis was assessed by thresholds of loan service coefficients. The stress test parameters take into account several factors, including the share of revenue received in foreign currency, the distribution of fixed and variable costs in a business borrower's total costs, the purpose of credit, types of credit product, and credit currency. Additionally, the value of collateral received by banks was considered to soften the stress test results.

Table B4.2: Corporate and small/medium borrower groups loan service coefficients and corresponding reserve rates

DSCR (debt service coverage ratio)	Provision Rate
>=1.2	2%
1.0-1.19	10%
0.7-0.99	30%
0.5-0.69	50%
<0.5	100%

Table B4.3: Financial institutions' leverage and corresponding reserve rates

Assets to Equity	Provision Rate
<=5	2%
5-10	10%
>10	100%

For assessing the retail and micro business portfolio on which a bank has not conducted creditworthiness analysis, only the following stress test parameters are included: real estate price reduction, national currency depreciation and reduction in the employment rate. Predefined defaults were assigned to each loan for the purpose of calculating an additional provision.

The only criteria used for assessing the gold pawnshop portfolio was the reduction in gold price. An additional provision was defined as the difference between the after-stress value of collateral and the loan amount.

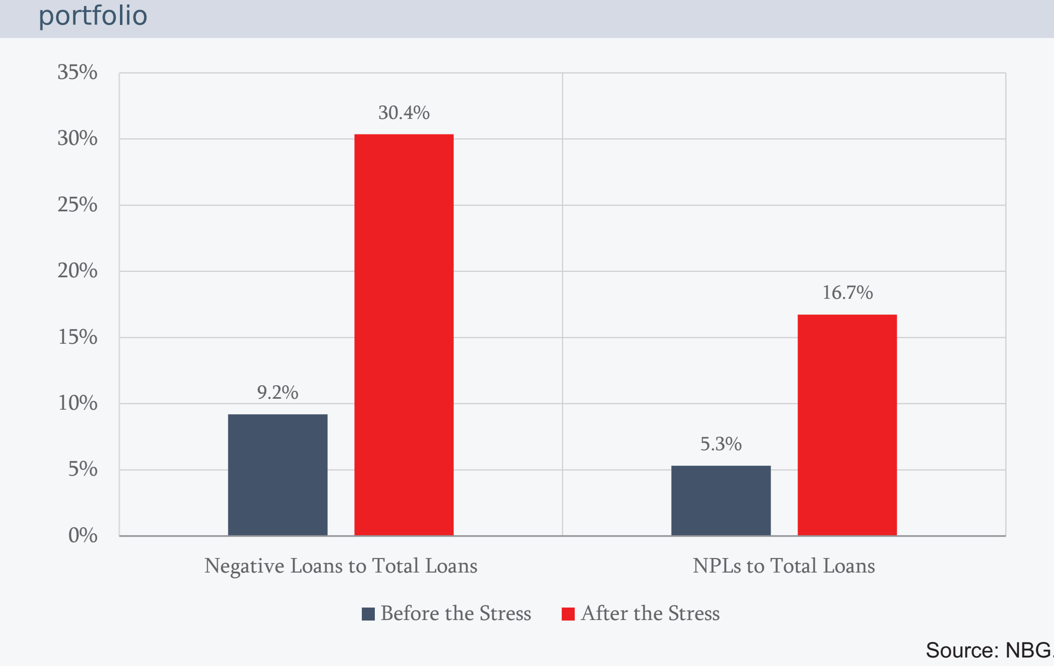
Table B4.4: Micro and retail portfolio loan service coefficient thresholds according to provision category

	Standard Loans		Watch Category		Substandard Category		Loss Category	
Monthly net income volume in GEL	Not for the hedged borrower	For the hedged borrower	Not for the hedged borrower	For the hedged borrower	Not for the hedged borrower	For the hedged borrower	Not for the hedged borrower	For the hedged borrower
≤1,000	≤35%	≤35%	35%-45%	35%-45%	45%-55%	45%-55%	>55%	>55%
>1,000	≤45%	≤60%	45%-55%	60%-70%	55%-65%	70%-80%	>65%	>80%

In order to calculate an after-stress additional provision, the current portfolio and provision were redefined according to the methodology (second phase), and stressors were then applied (third phase). The difference between the provision rates received in the second and third phases was assumed to be the effect of net stress.

After applying stressors on the credit portfolio, the banking system loss from loan loss provisions reached 2.1 billion GEL. The share of negative loans[41] in the gross loan portfolio rises from 9.2% to 30.4%, while the non-performing share of loans increases from 5.3% to 16.7%.

Figure B4.1: Share of negative and non-performing loans in the gross loan portfolio



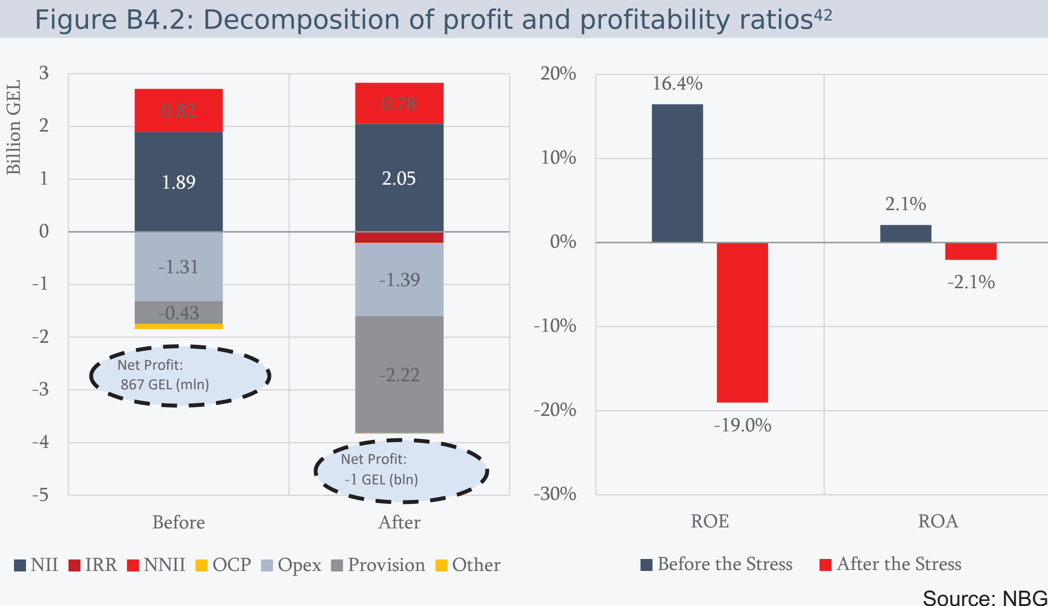
Source: NBG.

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

- Because of the depreciation of the FX rate, it is necessary to revalue banks' currency positions. Before the conduct of stress test the banking system had a short position in foreign currency, therefore a decrease in FX rates by 20% caused a 5.6 million GEL loss for the system.
- A significant effect was caused by a 1% worsening of the interest margin. The income statement was recalculated for a one-year period after the revaluation of the interest gap, taking into account increased interest rates. Increased interest rates were used for both floating and fixed interest rate assets/liabilities that were substituted by the same type of assets/liabilities after expiration. The hedge effect was used for the part of the interest gap that was included in the stress. Consequently, the banking sector faced losses of 206 million GEL.
- Non-interest revenue and cost was affected by a 5% decrease in accordance with the scenario. The deterioration in real estate prices had an additional effect through the property owned or repossessed by banks.
- The sum of after-stress losses indicates a significant decrease in banking system profitability. To be precise, after-stress losses reach 1 billion GEL, while the system operated with an 867 million GEL profit before stress. The stressors also caused a deterioration of system efficiency; the net interest margin decreased from 4.6% to 3.8% and the cost-to-revenue ratio increased from 48.4% to 53% at the same time.

41 Loans classified in the watch, substandard, doubtful or loss categories according to the asset classification regulation for commercial banks.

Figure B4.2: Decomposition of profit and profitability ratios[42]



Source: NBG.

The stress test aims to measure the readiness of the banking sector to face serious and possible stress, while maintaining capital adequacy in accordance with the regulatory requirements. In addition, the main purpose of the capital conservation and countercyclical buffers is to accumulate enough capital in the banking system to help banks absorb systemic losses arising from stress.

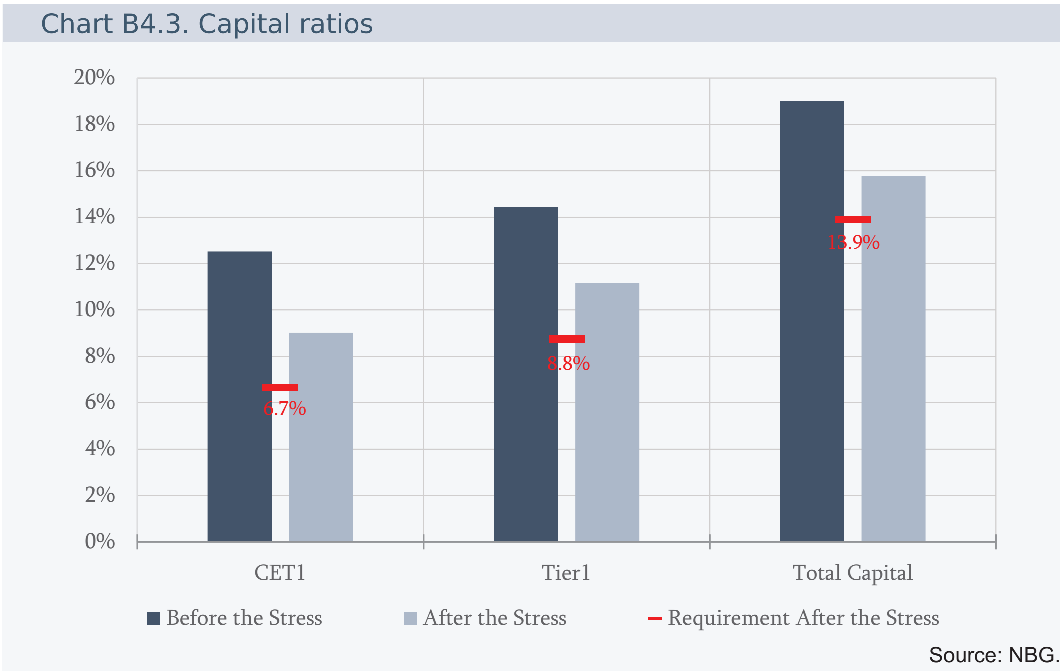
The capital banks require to handle stress is already considered in the capital conservation and countercyclical buffers. In order to avoid a double requirement, the amount of capital that is already captured by the conservation and countercyclical buffers is deducted from the gross capital amount needed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

Supervisory stress tests that were performed in the banking system showed that the net stress buffer amounts to 0.5% of total risk-weighted assets. This is an average indicator for the system. Accordingly, after stress nine banks were below the minimum capital requirements, with a deficit of 397 million GEL in aggregate; and six banks remained above the minimum capital requirements with a 182 million GEL surplus. At the moment of stress testing, the system and individual banks operate with large capital buffers. Those buffers, in addition to the conservation and countercyclical buffers that are meant to be released during stress periods, enable the banking sector to fully absorb all of the losses resulting from the performed stress test scenario. That means that there will be no need for banks to attract additional capital.[43]

42 ROE – net income divided by the one-year average of shareholder equity. ROA – net income divided by the one-year average of total assets.

43 These calculations are based on CET1 data.

Chart B4.3. Capital ratios



Source: NBG.

The individually calculated stress test results for each bank vary within 0%-6.3% of their total risk weighted assets, which indicates a sufficient difference between banks’ data and underlines their vulnerability to economic shocks.

IV. Financial Stability Policy Measures and Recommendations

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 have been implemented in previous years. Thanks to these measures, the Georgian financial system has been able to meet the shocks caused by the COVID-19 pandemic well prepared. On top of that, in order to mitigate the impact of the pandemic on the financial system, the NBG kept the counter-cyclical capital buffer at 0%, which will remain unchanged until the end of the year. A temporary supervisory plan was developed that allows the banking sector to use the capital and liquidity buffers during times of financial stress. The NBG also considers the role of microfinance institutions in financial stability and thus provides them with liquidity support instruments. The National Bank of Georgia constantly monitors developments in the financial sector and continues working to support financial stability.

Due to the macroprudential and microprudential policies implemented in previous years, the Georgian financial system remains resilient to the shock caused by the COVID-19 pandemic. The pandemic has significantly reduced economic activity and has increased risks to financial stability worldwide. The Georgian financial sector met this shock well prepared thanks to the measures taken in the pre-crisis period. The profits generated by commercial banks in previous periods and the additional capital requirements imposed by the National Bank of Georgia have allowed banks to accumulate sufficient capital buffers to deal with the crisis efficiently. At the same time, in the pre-crisis period, the NBG implemented a number of macroprudential measures to reduce the level of household indebtedness and loan dollarization. This helped reduce vulnerabilities in the non-financial sector and increased the resilience of the financial system to shocks. On top of that, by setting the liquidity coverage ratio and net stable funding ratio in recent years, the NBG has helped ensure market liquidity and the stability of banks' funding sources.

Credit activity in Georgia has slowed significantly due to the spread of the COVID-19 virus. As a result, the Financial Stability Committee of the NBG left the counter-cyclical buffer at 0%, which will remain unchanged until the end of the year. In the second half of 2019, the annual growth of the credit portfolio excluding the FX effect amounted to 14%, which was largely due to an increase in loans to legal entities. This trend was expected as a result of the enactment of the regulation on lending to natural persons, which brought the growth of loans in this segment down to a sustainable level. However, at the end of the year, credit growth increased in relative terms, reaching 15.9%. In June 2020, the annual growth of credit, excluding the FX effect, reached 14%. It should be noted that the credit-to-GDP ratio still exceeds the long-term trend, reflecting the effects of high credit growth, a significant drop in GDP and the exchange rate depreciation. In light of the pandemic, credit activity has decreased significantly, and this trend is likely to be maintained in the coming months. In this case, the growth of the loan portfolio in 2020 will remain in the range of 0-5%, which indicates that there will be no need to increase the countercyclical buffer.

Credit standards have improved since the enactment of the regulation on responsible lending to natural persons. At the same time, the growth of loans issued to natural persons has slowed and is now more consistent with income growth. The enactment of the regulation on responsible lending to natural persons[44] has reduced the annual growth of household lending and improved credit standards. Moreover, the funds available for financing legal entities have increased. As a result, in January 2020 the annual growth of lending to legal entities exceeded the corresponding number of the previous year by 4.6 pp. In order to reduce the administrative burden for lenders when issuing a loan and to increase their flexibility in managing risks, the NBG simplified the regulation on lending to natural persons in March 2020.[45] It should be noted that the main principle of the regulation remained unchanged: a financial institution shall not issue a loan or impose other

44 See https://matsne.gov.ge/ka/document/view/4422157?publication=0

45 See https://matsne.gov.ge/ka/document/view/4822603?publication=0

financial liability on a consumer (e.g. guarantee) without first undertaking a solvency analysis of the borrower. Moreover, lending institutions shall not impose a financial liability on a consumer for whom servicing the loan presents significant financial difficulty.

In order to mitigate the negative impact of the COVID-19 pandemic on the financial sector and to stimulate the economy, the NBG has employed a combination of macroprudential and microprudential measures. A temporary supervisory plan was developed that allows the banking sector to use capital and liquidity buffers during times of financial stress in order to absorb potential losses and enable a continuity of ordinary business activities.[46] Capital requirements for commercial banks have been lowered, which implies the elimination of the capital conservation buffer and a portion of the Pillar 2 buffer. To avoid additional restrictions on lending to the economy, the implementation of the "Regulation on Credit Concentration and Large Risks in Commercial Banks", which had been scheduled for June 2020, was postponed for a year. Moreover, the National Bank suspended on-site inspection of entities under the NBG supervision and simplified crediting procedures. The purpose of these and other microprudential measures was to facilitate the mobilization of the maximum resources by banks to best respond to the current challenges.

The National Bank of Georgia has ensured an adequate level of liquidity in the financial system and the economy, both in the pre-crisis period and during the crisis. In order to ensure banking system liquidity, the NBG has taken a number of measures. Banks were allowed to use foreign currency buffers for GEL liquidity management and, by so doing, were able to maintain total liquidity demand. The NBG also activated swap operations and launched a new liquidity instrument to support SME financing. With this tool, commercial banks will have the opportunity to receive liquidity support from the National Bank against the collateral of the SME loan portfolio. To support FX liquidity on the market, the NBG has launched a new mechanism of rule-based foreign exchange interventions.

The NBG also considers the role of microfinance institutions in ensuring the sustainability of the financial sector and provides them with liquidity support instruments. The latter enable microfinance institutions to attract funding from commercial banks with the support of the National Bank within the limits of their SME loan portfolios and in line with the criteria established by the National Bank. The NBG also provides liquidity support for microfinance institutions with swap operations (USD 200 million of the swap instrument).

The NBG's macroprudential efforts have been assisted by the government's actions. The anti-crisis plan developed by the government provides support for those sectors of the economy with high shares in economic growth and employment.[47] Tourism was one of the fastest growing sectors of the Georgian economy before the pandemic, and it has suffered the most amid the spread of the virus and as a result of the measures undertaken to contain COVID-19. It should be noted that the tourism sector has a significant effect on the effective operation of hotels and restaurants, which accounted for a 10% share in total loans as of June 2020. The government has developed an Anti-Crisis Plan on Tourism Revival with a total budget of 200 million GEL. Significant funds have also been allocated to support agriculture. Although the share of loans to the agricultural sector does not exceed 3.4%, the role of this sector in employment is particularly large and significant.[48] One rapidly growing sector of the Georgian economy is the development sector. Its share in the loan portfolio of the financial sector is also significant.[49] Working jointly with the National Bank and the private sector, the Georgian government developed a plan to support the development sector. The measures within this plan aim to stimulate demand for residential real estate property and ensure the availability of finance during the crisis.

To effectively fulfill its supervisory mandate, the National Bank of Georgia has begun publication of its supervisory strategy. The document will be published on an annual basis and will cover the strategic priorities of the next three years (2020-2022) as well as the deadlines and activities necessary for their achievement. The document aims to facilitate access to information regarding the supervisory priorities and strategies of the National Bank of Georgia for investors, international financial institutions, rating companies, the public and other stakeholders.

The National Bank of Georgia continues working to support the sustainability of the financial system. The NBG monitors the situation on

46 See https://www.nbg.gov.ge/index.php?m=754&lng=eng

47 See Measures Implemented by the Government of Georgia Against COVID-19, Report, https://stopcov.ge/Content/files/COVID_RESPONSE_REPORT__ENG.pdf

48 According to GeoStat data of 2019, the agricultural sector has a 38% share in total employment.

49 The share of the construction sector in total loans is 12.88% as of June 2020.

a regular basis and will use all available tools to mitigate the impact of the pandemic on the country's economy. It should also be noted that high uncertainty persists regarding both the duration of the pandemic and its impact on the economic and financial sectors. However, the current forecast suggests that the impact of the shock on the financial sector has already been largely reflected. Banks are likely to end up with losses in 2020, although their profitability is expected to be restored soon after the pandemic ends. The sustainability of the financial sector is ensured by the National Bank of Georgia through a number of macroprudential and microprudential instruments (see Table IV.1.). The non-banking sector, which also has to 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% 2% 1.2%	31.12.2020
Conservation buffer	0%	01.04. 2020
Pillar 2 buffers CET1 Pillar 2 Requirement Consolidated Range Tier 1 Pillar2 Requirement Consolidated Range Regulatory capital Pillar 2 Requirement Consolidated Range	 1.0% 0.5% - 2.1% 1.3% 0.6% - 2.8% 4.3% 2.6% - 13.5%	 As of 31.07.2020 As of 31.07.2020 As of 31.07.2020 As of 31.07.2020 As of 31.07.2020 As of 31.07.2020
Total capital and buffer Requirements Of which, Common Equity Tier 1 (CET1) requirements	10.6% - 21.5% 5.0% - 6.9%	As of 31.07.2020
Leverage ratio	5%	26.09.2018
Payment-to-Income limit (PTI) For loans in foreign currency (unless income is in the same currency) For loans in GEL (or in foreign currency if the borrower's income is in the same currency)	 20-30% 25-50%	 15.04. 2020 15.04. 2020
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%[50] 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% 25% 15%	 25.07.2018 17.10. 2019 16.05. 2019
Restrictions on foreign currency loans	Below 200,000 GEL	22.12.2018

50 This requirement was abolished on 1 May 2020 for a period of one year.

Box 5. Development of a sustainable finance framework in Georgia

The mandates given to central banks generally assign a price stability objective and a financial stability objective. As the world has acknowledged that sustainability issues are a source of financial risk, their management falls squarely within the financial stability objective. Recognition of this fact is key to the actions taken by the National Bank of Georgia to support the development of a sustainable finance framework.

Risks stemming from sustainability issues arise through two primary channels: the physical effects of climate change and the impact of changes associated with the transition to a lower-carbon economy. It is the responsibility of central banks and financial regulators to understand those risks to financial stability and to the financial institutions that they supervise. A growing number of central bank and regulators all over the world have started to deal with this challenge in practice. Policymakers in developing as well as developed countries have put a number of policies in place to support the development of sustainable finance. The latter is a pre-condition for sustainable development. The National Bank of Georgia supports the strengthening of the role of the financial sector in the sustainable development of the country, and has become one of the first organizations in the region to take initiatives towards the development of a sustainable finance framework.

The National Bank of Georgia started developing its sustainable finance framework in 2017, after it joined the International Finance Corporation (IFC)-supported Sustainable Baking Network (SBN). One of the most important steps that the NBG has taken in this regard was the publication of the Sustainable Finance Roadmap for Georgia in April 2019.[51] The roadmap was developed in collaboration with the IFC / SBN, and combines all possible steps planned by the NBG for supporting sustainable finance over the next two to three years. The ultimate goal of this roadmap is to provide a credible, predictable and stable regulatory framework and to prepare the market for a transition to sustainable finance. The roadmap has been created in a consistent manner with the other actions planned by the Government of Georgia in this field. It addresses environmental, as well as social and governance concerns. The actions listed in the roadmap serve four different goals set out in the action plan: increasing awareness and building the capacity of sustainable finance; guiding more capital flows towards

Figure B5.1 Roadmap for sustainable finance in Georgia

Increasing Awareness and Capacity Building	Sustainable Finance Flows	ESG Risk Management	Transparency and Market Discipline
• Develop Policies and Guidance to Support Market Action • Provide and Facilitate Trainings and Workshops for Stakeholders; • Conduct Research on Sustainable Finance Topics; • Establish Sustainable Finance Working Group.	• Introduce Sustainable Finance Taxonomy; • Develop Sustainable Finance Guidelines; • Explore Options for Incentives and Regulations to Stimulate Sustainable Finance Flows.	• Integrate ESG Considerations in Corporate Governance (CG) Code for Comercial Banks; • Integrate ESG Considerations in CG Code for Capital Market; • Develop ESG Risk Management Guidance and Tools.	• Include Minimum ESG Disclosure Requirements in CG Codes for Commercial Banks and Capital Market; • Provide Guidance on ESG Reporting and Disclosure; • Develop Progress Measurement Tools; • Create an Information Hub

Source: Roadmap for Sustainable Finance in Georgia

51 See https://www.nbg.gov.ge/index.php?m=723

sustainable sectors; integrating environmental, social and governance (ESG) factors into the decision-making processes of financial institutions; and supporting market transparency in terms of sustainable finance.

Most of the actions listed in the roadmap are already in progress. The NBG has already integrated ESG considerations into the Corporate Governance (CG) Code for Commercial Banks. These considerations are now being integrated into the Corporate Governance Code for Capital Markets as well. The ESG disclosure requirements set by the CG Code for Commercial Banks are already mandatory. To guide banks through this process and ensure that they are disclosing ESG information in a consistent and comparable manner, the NBG with the help of OECD has developed ESG reporting and disclosure principles with a corresponding template.[52] Such enhanced disclosure on ESG also aims to help Georgia's financial sector to promote ESG risk management and improve transparency. The year 2021 will be the first time that banks will disclose ESG information according to the requirements set out by the new CG code and will use the NBG's template to do so. The templates filled out by financial institutions will be published annually on the NBG's website to facilitate access to ESG-related information for investors and other stakeholders. In addition, the information disclosed will be used to monitor and evaluate the sustainable finance performance of financial institutions and will therefore serve as one of the tools for measuring the progress of sustainable finance development.

Lack of awareness has been one of the main challenges that the NBG has encountered in the process of developing the sustainable finance framework. An analysis of the financial sector has shown that some financial institutions are already quite advanced in this field, while others are still at the very early stages of sustainable finance development. With the aim of increasing awareness and supporting capacity building, the NBG in cooperation with IFC organized sustainable finance conferences in 2018 and 2019. These conferences will continue to be held annually, gathering local and international experts, and providing a platform for sharing experience. With the same purpose, the International Capital Market Association's (ICMA) Green, Social and Sustainable Bond Principles have been translated into the Georgian language. The document in Georgian is now available on the ICMA website[53], which also signals international investors about Georgia's interest in the development of sustainable finance.

Close cooperation and coordination between different stakeholders are especially important for the effective and successful development of a sustainable finance framework. With this aim, the NBG has also created a sustainable finance working group, the members of which include the heads of the relevant units of financial institutions. The working group meets on a regular basis to share ongoing progress in terms of sustainable finance, to discuss related challenges and give feedback on the actions planned by the NBG.

Currently, the NBG continues to work with the IFC to develop a sustainable finance taxonomy. The aim of the taxonomy is to provide the market with a homogeneous definition of green, social and sustainable economic activities. Adopting a taxonomy that is compatible with international definitions will help increase international investment and will support local institutions to contribute to Georgia's sustainable development goals. Due to these and other important actions undertaken by the NBG, Georgia has made significant progress towards the development of the sustainable finance framework and has advanced two steps in the SBN's six-step Progression Matrix – moving from the "Commitment" to the "Developing" stage. Georgia is one of only seven countries to have achieved such significant progress.

The National Bank of Georgia took another step towards the development of the sustainable finance framework by joining the Network for Greening the Financial System (NGFS) in February 2020. The NGFS is a network of central banks and

52 See https://www.nbg.gov.ge/index.php?m=747

53 See https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

supervisors willing, on a voluntary basis, to share best practices to contribute to the development of environmental and climate risk management in the financial sector and to mobilize mainstream finance to support the transition toward a sustainable economy. At this stage, the National Bank will have an appointee at the NGFS's macrofinancial workstream and will also have a representative at the plenary. This will all further facilitate the effective implementation of the NBG's Sustainable Finance Roadmap.

The National Bank of Georgia continues to actively work on the development of a sustainable finance framework and is gradually implementing the action plan outlined in the Sustainable Finance Roadmap.

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