NATIONAL BANK OF KAZAKHSTAN

FINANCIAL STABILITY REPORT OF KAZAKHSTAN

2020

Contents

List of acronyms and abbreviations

Agency	Agency of the Republic of Kazakhstan for Regulation and Development of Financial Market
CFA	credit file analysis
JSC	joint-stock company
TSP	targeted social support
STB	second-tier bank
NSB ASPR RK	National Statistics Bureau of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan
GDP	gross domestic product
HLA	highly liquid assets
IL	internal liabilities
WHO	World Health Organization
PQS	public and quasi-public sector
SSIF	State Social Insurance Fund JSC
GS	government securities
MP	monetary policy
UAPF	Unified Accumulative Pension Fund JSC
EU	European Union
UAP	unified aggregate payment
ECB	European Central Bank
HCSBK/ Zhilstroysberbank	Housing Construction Saving Bank of Kazakhstan JSC
FCGA	foreign currency and gold assets
FCGR	foreign currency and gold reserves
MHL	mortgage housing loan
FDI	foreign direct investments
CPI	consumer price index
MB	major business
IAR	ratio of placement of a part of banks' funds into internal assets
QPS	quasi-public sector
KASE	Kazakhstan Stock Exchange
KDIF	Kazakhstan Deposit Insurance Fund JSC
KSF	Kazakhstan Sustainability Fund JSC
SV	small business
IMF	International Monetary Fund
LEA	local executive authority
MRR	minimum reserve requirements
SME	small and medium-sized enterprises
IFRS	International Financial Reporting Standards
MLSP RK	Ministry of Labor and Social Protection of the Republic of Kazakhstan
FM RK	Ministry of Finance of the Republic of Kazakhstan
NBK/ National Bank	National Bank of the Republic of Kazakhstan
NF RK	National Fund of the Republic of Kazakhstan
PA	principal amount
ECL	expected credit losses
OPEC+	Organization of Petroleum Exporting Countries
FLB	federal loan bonds
PF	pension fund
DFI	derivative financial instruments
RK	Republic of Kazakhstan
ME	medium-sized enterprise
FCC	freely convertible currency
CIS	Commonwealth of Independent States
IND	individual(s)
CSD	Central Securities Depository JSC
ES	emercency situation

LEG	legal entity(ies)
AQR	independent bank asset quality review (asset quality review)
COVID-19	coronaviral infection
CVA	credit valuation adjustment
EVS-2016	European valuation standards
GBI-EM	Government Bond Index-Emerging Markets
HHI	Herfindahl-Hirschman index
IPW	independent price verification
KPI	key performance indicators
LCR	liquidity coverage ratio
LDR	loan-to deposit ratio
LGD	loss given default
LTV	loan-to-value ratio
NDF	non-deliverable forward
NPL/NPL 90+	loans with an overdue debt under a principal amount and/or charged interest for more than 90 days (non-performing loan)
NSFR	net stable funding ratio
PD	probability of default
RICS	Royal Institution of Chartered Surveyors
ROE	return on equity
RWA	risk weighted assets
SARS	severe acute respiratory syndrome
SREP	Supervisory review and evaluation process
$/bbl.	USD per barrel of oil
b.p.	basis point
pp	percentage point
y-o-y	year-on-year
q-o-q	quarter-on-quarter
sq.m.	square meter
k	thousand
mln	million
bln	billion
tln	trillion
pers.	person

KEY FINDINGS

Global context

During the reporting period, the world economy has undergone a radical change in the risk map for financial stability. The period of tense trade and economic relations with periodically renewed global maneuvers at the beginning of 2020 unexpectedly gave way to a period of total uncertainty, the world economy faced an absolutely unprecedented event of the modernity - the COVID-19 pandemic.

The first shocks and their destructive potential began to manifest themselves in Q1 2020. The rapid rupture of trade and financial chains against the background of introducing the quarantine measures and widespread lockdowns caused an unprecedented increase in uncertainty regarding the prospects for further development and financial stability. At all levels, both local and global, possible assessments of potential damage, the capability of the economy to mitigate it, and subsequently to embark on the course of recovery, were the main issues on the world economic agenda. Despite this, as the situation developed, the global financial system retained its steady functionality, the actions of regulators made it possible to solve liquidity problems in the markets, and the adequacy of bank capital buffers to cope with the inevitable need to absorb previously unforeseen losses. By the end of 2020, active actions by governments, central banks and businesses began to deliver the first positive results - some economic indicators began to show the first signs of recovery given the emergence of vaccines and certain stabilization of the epidemiological situation. At the same time, the risks associated with the stability of the further development of the economy and the restoration of the solvency of both the population and business began to come to the fore.

Economies with a sufficiently developed infrastructure for the redistribution of market risks, in theory, absorb economic shocks easier. This gives them a greater potential for subsequent recovery in comparison with economies in which the financial market is less developed. Despite the fact that the development of a country's financial market is also influenced by the degree of its economy diversification, the multisectoral nature of the current crisis has highlighted the low resilience of even fairly diversified economies. The bulk of economic support came from the fiscal channel and remains the main driver of the subsequent recovery. However, the inevitable constraining of the fiscal space raises questions of maintaining fiscal sustainability and limits the ability to absorb future shocks.

The depth of the market, as well as the effectiveness of its functioning as an initial link in the transmission determined the ability of the monetary channel to effectively make the necessary adjustments in emergency situations. Jurisdictions, where the sufficiency of information and infrastructural development of markets allowed the authorities to quickly assess and redistribute risks in the system, quickly stabilized expectations, thereby reducing economic uncertainty. This allowed us to gain time for a balanced decision on the assessment of the required volumes and directions for the fiscal support. At the same time, not necessarily rich, but financially developed countries managed to quickly and effectively use the fiscal support channel without creating and accumulating additional risks.

In one way or another, the current crisis has demonstrated the vulnerability of many well-established models of long-term growth and stability; raised a number of questions on the priority of developing mechanisms for ensuring sustainability and real prospects for targeted niches in the economy. It also showed the need for a clear interaction between monetary and fiscal channels, the first as a tactical mechanism for rapid response and management, and the second as a system of strategic goal-setting in the process of implementing a balanced long-term economic policy.

Macroeconomic policy

Amid the spread of the coronavirus, global trade declined as many countries were forced to close borders and cut production. In addition, the introduction of forced quarantine restrictions led to a decrease in consumption and business activity, which negatively affected the prospects for global economic growth.

The economy of Kazakhstan is not an exception. Anti-epidemiological measures primarily contributed to a decrease in the economic activity of citizens, significantly reducing the level of aggregate demand, which negatively affected the financial condition of households and small and medium-sized businesses. The imposition of the state of emergency, coupled with a significant drop in oil prices in the first half of 2020, is the reason of the deeper slowdown in Kazakhstan's economy in 2020 compared to the period of the financial crisis of 2008-2010, and the oil shock of 2014-2015. Thus, according to the results of 2020, the decline in GDP growth rates amounted to 2.6%.

The current account on the balance of payments continues to be under strong pressure, having formed at the end of 2020 with a deficit of US $6.3 billion. In addition, the COVID-19 pandemic continued to constrain foreign direct investment flows. The dynamics of external accounts as a whole do not demonstrate an improvement in long-term macrofinancial risks for the economy.

The spread of coronavirus infection and the subsequent quarantine measures put pressure on the labor market and nominal household incomes, and reduced the population's ability to pay. This had a multidirectional impact on the components of inflation. On the one hand, there was a decrease in the consumption of certain types of goods and services. On the other hand, heightened uncertainty has increased the demand for essential goods and household appliances. Following the fall in oil prices and the national currency weakening in March 2020, inflation went beyond the upper limit of the target corridor of 6% and remained outside of it until the end of the year, amounting to 7.5% at the end of 2020.

The impact of monetary policy on aggregate demand remains limited. High credit risks in the non-tradable sector remain an obstacle to the expansion of demand through the credit channel, and the capability of banks to absorb credit risk is limited.

The low depth and liquidity of the GS market, along with insufficient stability and continuity of the public debt management policy, do not allow it to fully assume the function of the main transmission channel for monetary policy. Under these conditions, the currency channel continues to substitute it. The increase in the base rate in March-April 2020 with its subsequent decrease and the introduction of the opportunity to use the Frankfurt trading mode for the tenge - US dollar currency pair made it possible to stabilize the liquidity level in the foreign exchange market.

The fiscal channel use was maximized to support the economy. The considerable level of sovereign assets made it possible to finance a sharp increase in government spending. The non-oil deficit grew from 7.9% to 10.7% to GDP. The continuing trend of financing government spending through transfers from the NF RK creates risks of accumulating macrofiscal imbalances. The transition to the countercyclical fiscal rule will contribute to their reduction.

Prices continued to rise in the residential real estate market. The high rates of growth in the number of transactions are due to government support programs that stimulate demand. These programs drive up real estate prices and create inflationary pressures, which in turn hinders the development of market mortgage lending. The suspension of all programs may lead to a decrease in prices in the residential real estate market, which may negatively affect financial stability through the cost of collateral.

In the midst of a deep economic downturn in 2020, the fiscal channel effectively supported economic activity in the country. However, with a further increase in government spending and the fiscal space constraining, the risks of long-term macrofiscal sustainability increase. In addition, a sufficiently high degree of procyclicality of the fiscal policy from the dynamics of oil prices remains, which requires the introduction of the countercyclical fiscal rule in the budget legislation in the short term. Such a mechanism will regulate the long-term strategy of fiscal policy, ensure the safety of the assets of the NF RK, and reduce the dependence of public finances on the oil price cycle. In December 2020, by the decree of the President, changes were made to the Concept for the formation and use of the NF RK, where for the first time the conceptual foundations of the countercyclical budget rule were established. The rule was designed to improve budget discipline, stabilize government spending and strengthen the saving function of the NF.

Credit risks of the economy

The ability of borrowing companies to attract funding through bank loans remains limited due to the high debt burden inherent in such enterprises. At the beginning of 2020, 74% of the total volume of bank debt of enterprises is concentrated on the balance sheets of enterprises with low or negative capital. The share of such enterprises amounted to 38% in 2019, having decreased by 1 percentage point over the year. Financially unstable enterprises have historically worse management of accounts payable and receivable, and also have a small amount of liquid assets. In such conditions, the possibility of servicing a significant volume of obligations of borrowing enterprises becomes limited, and during periods of economic downturn it can lead to their default. Long-term quarantine restrictions implemented throughout 2020 have shown the vulnerability of highly leveraged enterprises. Thus, the largest decrease in operating cash flows in 2020 was observed in the group of borrowing companies with a low level of capital. At the same time, cash flows from operating activities of enterprises with bank debt were almost completely covered by negative cash flows from financial activities, which are largely associated with servicing the bank debt. Further lending to enterprises with low or negative capital carries long-term risks to the financial stability of banks and reduces the economy's capability to absorb shocks.

A full-scale independent asset quality review (AQR), completed in early 2020, was a starting point for further enhancing the resilience of the financial sector. The AQR results made it possible to diagnose the quality of banks' loan portfolios and determine the subsequent directions for improving banks' performance and transformation of their business processes, policies and procedures. During 2020, banks started to develop and update their methodologies in terms of classification of financial instruments, lending and underwriting, assessment of collateral, calculation of provisions and other areas.

In 2020, the banks' asset quality continued to improve. This was facilitated by both measures implemented by banks under the AQR, as well as the withdrawal of an insolvent player from the system and the clearing of balance sheets by large banks as part of the merger.

The activities implemented by the banks within the framework of the AQR had a positive impact on the risk management process, which made it possible to prevent the accumulation of risks and increase the system's resilience to internal and external shocks, which include the consequences of COVID-19.

The COVID-19 pandemic had a significant impact on all sectors of the economy. In order to prevent the growth of the debt burden, the state started to support the population and SMEs affected by the introduction of restrictive quarantine measures. As part of this support, their payments on loans were deferred. The measures taken made it possible to promptly reduce social tension in the country and minimize credit risks associated with the epidemiological situation in the short term.

The corporate portfolio quality has improved by the end of 2020, but the level of borrowers' credit risk remains high. A significant portion of problem loans has historically been remaining in the non-tradable sector of the economy, which was affected the most by the pandemic. Moreover, the recovery rates of the economy's individual sectors depend on the further dynamics of the pandemic. The high risks of the corporate portfolio also reflect the lack of trustworthy borrowers in the economy and the high dependence of the banks' portfolio on the largest borrowers.

The quality of the retail portfolio remained significantly higher than the corporate one. The retail portfolio grew significantly faster than the corporate one, which was due to the growth of unsecured consumer and mortgage lending. After a slight increase in doubtful loans in mid-2020 due to the introduction of the state of emergency and the implementation of appropriate restrictive measures, the share of non-accrual loans decreased in all segments of the retail portfolio, while credit risks were concentrated mainly in the segment of secured consumer loans. Granting loan deferrals allowed banks not to degrade retail portfolio quality metrics in regulatory reporting. The accelerated retail portfolio growth requires banks to take a conservative approach to risk appetite, strengthen monitoring and control of risks on loans to individuals, and take exceptional events such as COVID-19 into account in their risk models.

Liquidity and funding risks

By the end of 2020, the liquidity ratios of most banks significantly exceeded the normative values, signaling a low level of risks. Traditionally, excess liquidity was withdrawn by means of the National Bank operations. In turn, on the part of funding, the main risks were associated with its structure and effective management of liabilities. The share of fairly urgent funding remained low, despite a slight decrease, the concentration of quasi-state companies in liabilities continued to prevail. The level of dollarization of deposits has decreased since 2019, but still insufficiently, as It continues to bear currency risks, directly affect the pricing of banking products and limit the effectiveness of the transmission mechanism of monetary policy. Interest rate risks also remained moderate. The weighted average rates on attracted deposits of individuals and legal entities remained stable. In the lending segment, there were also no sharp jumps in remuneration rates, with the exception of retail lending, where there was an intermittent decrease in the weighted average rate to the minimum for the last 5 years.

I

Macroeconomic conditions

In 2020, the world economy experienced an unprecedented shock - the coronavirus infection pandemic. Amid the spread of the coronavirus, international trade declined as many countries were forced to close borders and cut production. In addition, the introduction of quarantine restrictions led to a decrease in consumption and business activity, which negatively affected the prospects for global economic growth.

The economy of Kazakhstan is not an exception. Anti-epidemiological measures had an impact on the business activity of citizens, significantly reducing the level of aggregate demand, which negatively affected the financial condition of households and small and medium-sized businesses. A sharp decline in economic activity, a decrease in external demand with a significant drop in external prices for energy resources led to the strongest slowdown in the economy of Kazakhstan in the last decade.

In 2020, the current account on the balance of payments continued to remain under strong pressure, having formed at the end of 2020 with a deficit of US $ 6.3 billion. In addition, the COVID-19 pandemic continued to constrain foreign direct investment flows. Thus, the dynamics of external accounts create preconditions for the realization of long-term macrofinancial risks for the economy.

The spread of coronavirus infection and the ensuing quarantine measures also put pressure on the labor market. Due to the transfer of some employees to part-time work and the administrative granting of unpaid leave, the number of "temporarily unemployed" workers has increased. Far from allowing to fully use the potential of labor resources without reducing their productivity and potentially slowing down the prospects for economic growth, such measures lead to a reduction in the population's ability to pay, which in turn negatively affects their ability to service obligations and may entail significant risks to financial stability.

In the first half of 2020, there was a slowdown in the growth of real incomes of the population, as well as a decrease in the nominal income of households from labor. In addition, the share of social transfers in the household income structure increased, and the ratio of debt service costs to disposable income continued to grow. These dynamics indicate the potential risks to financial stability.

In 2020, monetary policy faced major challenges. In particular, on the one hand, there was an increase in the inflationary pressure and the risks of higher dollarization of STB liabilities as a result of the tenge weakening. On the other hand, amid reducing demand, falling energy prices, and the introduction of quarantine within the country, the risk of recession occurred.

The timely response of monetary policy in the form of a short-term rise in the base rate and an increase in the supply of liquidity in foreign currency helped to reduce the impact of shocks and prevent escalation of risks in the financial sector. Having stabilized the situation in the financial sector, the NBRK lowered the base rate to the level of 2019 to sustain economic activity. As a result of rising inflation and a decrease in the base rate, the real rate fell to 1-2%.

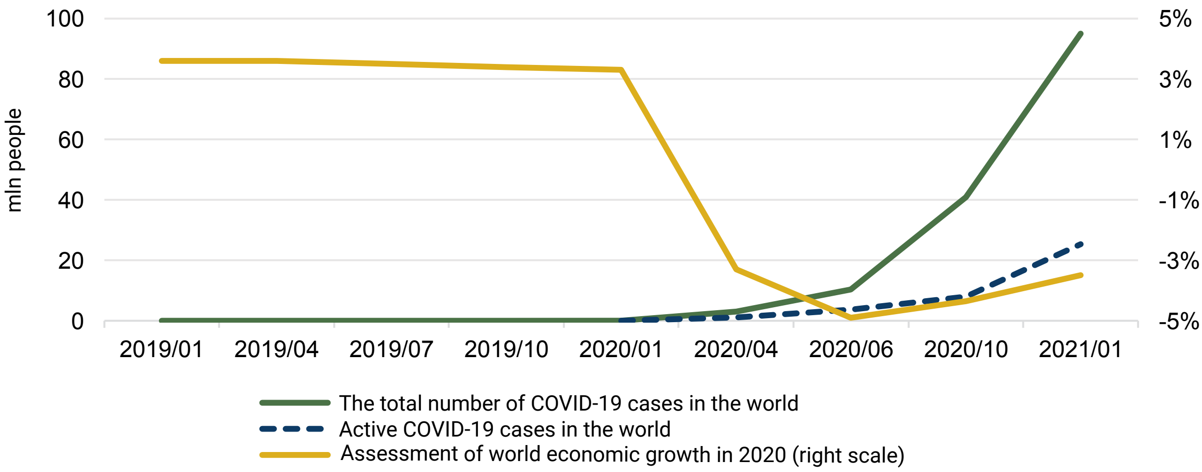
Under the deep economic downturn caused by the spread of COVID-19, the fiscal channel to support the economy has worked effectively. However, with further constraining of the fiscal space, the risks of macrofiscal sustainability increase. In addition, a sufficiently high degree of the fiscal policy procyclicality from the dynamics of oil prices remains. It requires the introduction of fiscal rules into the budget legislation, which will regulate the long-term strategy of fiscal policy, ensure the assets safety of the NF RK, and reduce the dependence of public finances on the oil cycle. In 2020, the Government of the Republic of Kazakhstan, together with the National Bank, carried out the amendment of the Concept for the formation and use of the NF RK. The new countercyclical fiscal rule will improve budgetary discipline, stabilize government spending, and strengthen the saving function of the NF.

1.1 Macroeconomic conditions

The COVID-19 pandemic became an unprecedented shock to the world economy. The rapid spread of the virus and the imposition of quarantine restrictions led to shocks for both the demand and the supply. Massive border closures, a decline in production and trade, and a decline in consumption and business activity have worsened the world economic growth outlook in 2020.

In January 2020, the forecast for world economic growth was 3.3%, however, against the background of the rapid spread of the pandemic in June 2020, the forecast worsened to 4.9% *(Chart 1.1)*. Growth prospects improved slightly in the second half of 2020, with the IMF forecasting a 4.4% decline in world GDP in October, but in January 2021, the IMF's estimate of the world economic downturn in 2020 made up 3.5%. Successful test results for coronavirus vaccines, as well as the start of vaccinations in some countries in December 2020, have raised optimism about the faster lifting of quarantine restrictions and improved the outlook for the world economy.

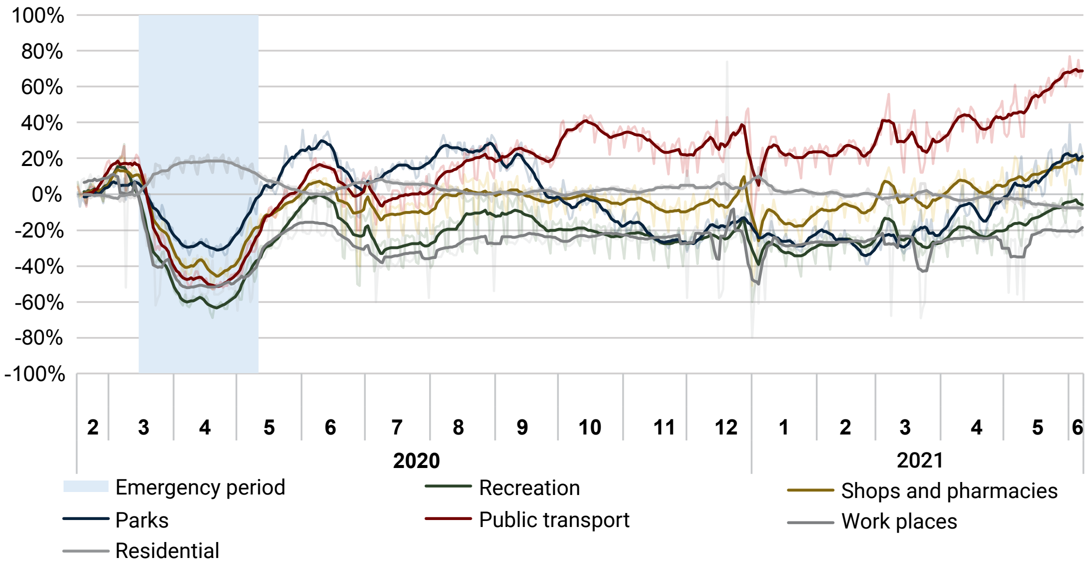
Chart 1.1 ***The spread of COVID-19 has worsened the growth prospects of the world economy***



Source: *IMF World Economic Outlook, ourworldindata.org*

To limit the increase in the incidence of coronavirus infection in Kazakhstan, a state of emergency was introduced. The introduction of the state of emergency noticeably reduced the activity of citizens *(Chart 1.2)*. So, in March-April 2020, the number of visits to places of all categories, with the exception of residential areas, decreased compared to the base period (the week from January 3 to February 6, 2020), which is explained by the introduction of tighter restrictions on the mobility of citizens (in the absence of a certificate from the place of work it was allowed to visit only places close to the place of residence). In March-April 2020, the sharpest decline was demonstrated by the number of visits to shops, catering outlets and places of recreation (-66% compared to the base period). Such a decline in the activity of citizens potentially indicates a decrease in demand for goods and services from the population, which negatively affected the financial and economic condition of small and medium-sized businesses. During the state of emergency, the number of visits to workplaces significantly decreased (-52% compared to the base period), which is explained by various measures aimed at limiting the number of staff in the office, including transferring employees to remote working hours, reduced working hours and placement on administrative leave. In May and the first half of June, there was an increase in the number of visits to workplaces, however, the indicator continued to remain below the pre-pandemic level throughout 2020, which may indicate the continued suppressed consumer demand with limited supply. At the same time, the rapid growth of digitalization and the development of a remote format for the provision of services should be noted, which may not be reflected in the index of citizens' mobility.

Chart 1.2 ***The state of emergency introduction in April 2020 significantly reduced the mobility of citizens***
Mobility of citizens in Kazakhstan (Google Mobility Index), % in relation to the base period

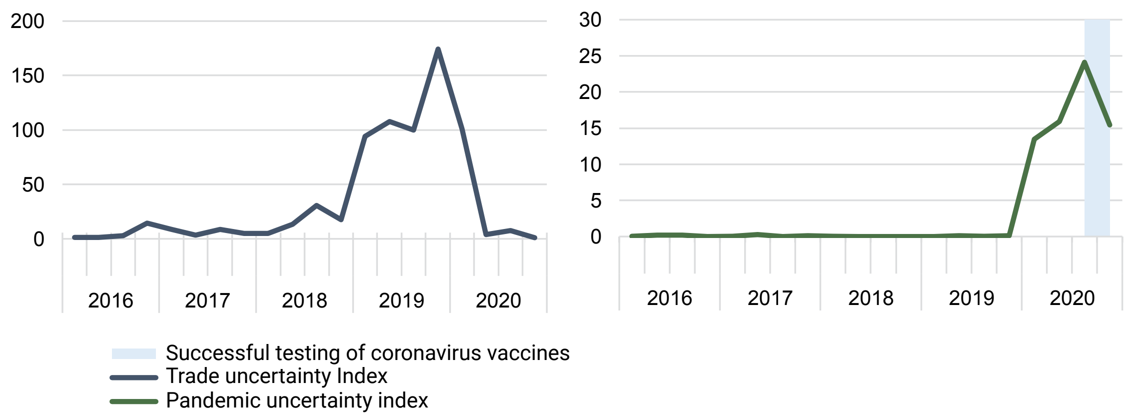


Source: *Google COVID-19 Community Mobility Trends*

Note: *The mobility of citizens is calculated in relation to the base period (%), the week from January 3 to February 6, 2020 is taken for the base period. To display trends, clear lines show the change to the base period calculated for a seven-day floating window*

The main sources of global uncertainty in 2019 and 2020 were heterogeneous. If in 2019 there was a surge in trade uncertainty, then in 2020 the main source of growth in global uncertainty was the COVID-19 pandemic *(Chart 1.3)*. Before the spread of the coronavirus, the maximum value of the pandemic uncertainty index was recorded during the SARS virus epidemic in 2003 (the index value was 4.4 points). The rapid spread of the virus in 2020, entailing restrictions on operations, disruption to supply chains and falling incomes, combined with uncertainty about the pandemic duration, resulted in an unprecedented increase in uncertainty. In Q3 2020, the pandemic uncertainty index reached an all-time high, increasing more than 393 times compared to the same period in 2019. However, successful vaccine test results in Q4 2020 led to a certain reduction in uncertainty.

Chart 1.3 ***Coronavirus pandemic is the main source of growing global uncertainty in 2020***



Source: *IMF*

Note: *Uncertainty indices are calculated using text processing in Economist Intelligence Unit country reports. Specifically, each of the indices counts the frequency of use of the word "uncertainty" and its variations in close proximity to words related to pandemic and trade. For the correctness of the comparative analysis, the obtained value is normalized in accordance with the number of words in the report*

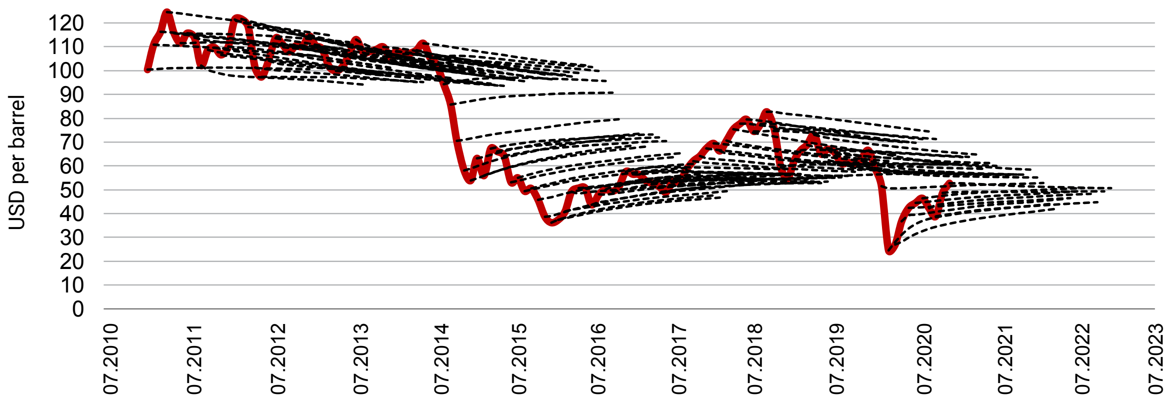
In 2020, amid the spread of the pandemic, many countries were forced to close production facilities and borders, which led to a decrease in globalization. According to IMF estimates, the decline in world trade was comparable to the decline in trade turnover during the crisis period of 2008-2009 *(Chart 1.4)*.

Chart 1.4 ***Pandemic has slowed the pace of globalization***
World Trade Turnover Growth, y/y

Source: *IMF World Economic Outlook*

The world trade slowdown has led to a decrease in demand for oil - Kazakhstan's main export product. In 2019, oil prices were in the range of $60-70 per barrel, but amid OPEC + differences, reduced oil demand and quarantine restrictions in April 2020, the futures price of Brent crude oil fell to $20 per barrel *(Chart 1.5).* Q2 and Q3 2020 saw a gradual recovery, but oil prices remained below 2019 prices. The success of vaccine testing and the reduction in oil production in the United States led to an increase in prices, so at the end of Q4 2020, oil prices exceeded $50 per barrel.

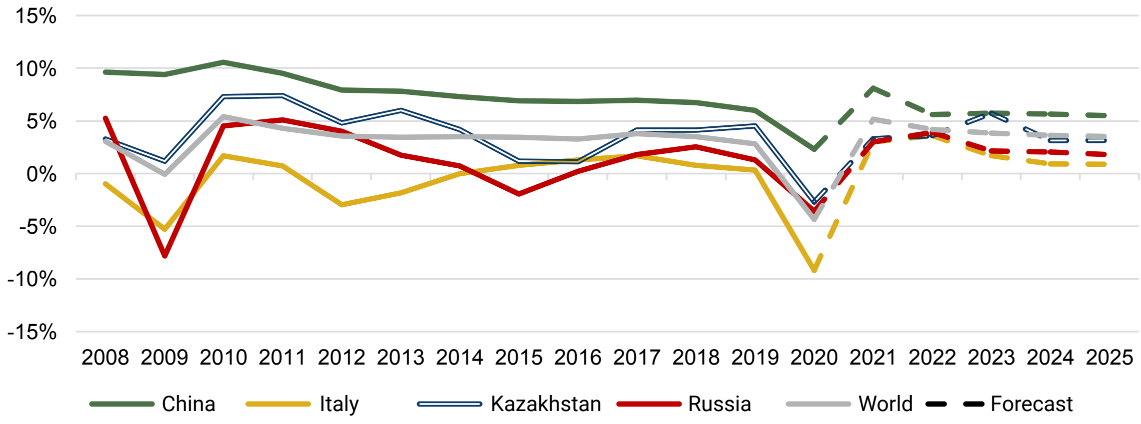
Chart 1.5 ***In March-April 2020, a significant decline in oil prices was observed***
Brent crude oil futures prices



Source: *Bloomberg*

Low oil prices in the first half of 2020 exacerbated the impact of massive quarantine restrictions on economic growth. According to IMF estimates, the economic downturn in Kazakhstan in 2020 was stronger than during the financial crisis of 2008-2010 and the sectoral crisis of 2014-2015 caused by the oil shock *(Chart 1.6)*. However, the growth rates of the economy of Kazakhstan in 2020 remained better than the world average. A dynamic growth recovery is expected in 2021. According to IMF forecasts (October 2020), the economic growth of Kazakhstan will make up 3.3% in 2021.

Chart 1.6 ***The slowdown in economic growth in Kazakhstan in 2020 was below the world average***
Estimation and Forecast of GDP Growth, y/y



Source: *IMF World Economic Outlook (October 2020)*
Note: *The chart shows the growth dynamics of the economies - the largest trading partners of Kazakhstan*

1.2 External accounts

The current account on the balance of payments continued to be under strong pressure. At the same time, under the influence of the pandemic, there was a continued containment of the foreign direct investment growth. Such dynamics of external accounts create preconditions for the realization of long-term macrofinancial risks for the economy.

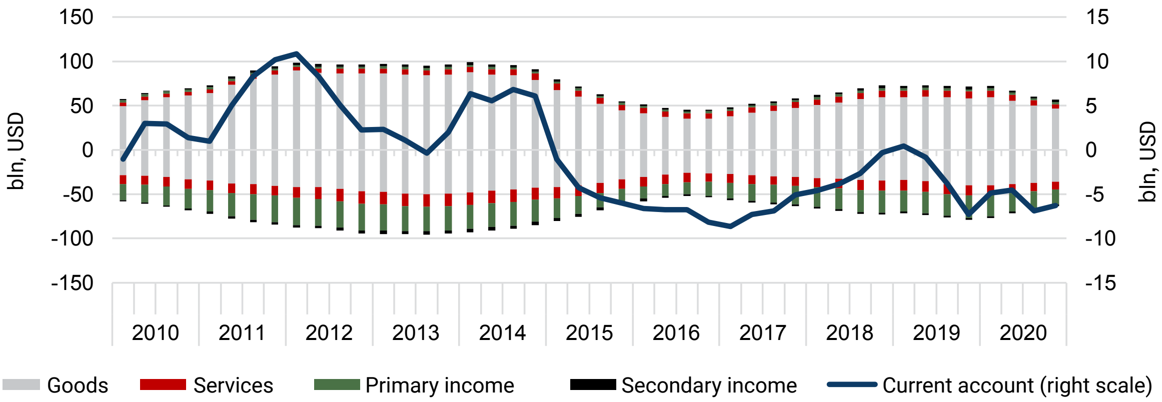
At the end of 2020, the current account was formed with a deficit of 6.3 billion US dollars *(Chart 1.7)*. According to the results of 2020, the export of goods according to the balance of payments methodology decreased, mainly due to a decline in oil export. Among the main commodity groups, sales of uranium and grains abroad increased. The growth in uranium export is driven by a decrease in supply in the world market due to the suspension of work at uranium mines in order to counter the spread of COVID-19, while the demand remains associated with the commissioning of new capacities and the gradual transition of countries to a green economy. Grain export increased due to higher prices. At the same time, the volume of grain export decreased due to restrictions introduced in the spring of 2020 in order to meet domestic demand. At the same time, in 2020, the import of goods according to the balance of payments methodology decreased. In particular, due to border crossing restrictions, there was a sharp decline in shuttle trade (by $2.0 billion to $285 million). In addition, the decline in economic activity in the country led to a decrease in the import of intermediate goods. At the same time, there was an increase in the import of goods necessary for the transition to distance work and training, as well as goods for combating the coronavirus pandemic (medicines, ventilators, telephones, laptops, monitors and projectors, household chemicals). Due to a deeper decline in exports compared to a decrease in imports, the trade surplus amounted to $10.5 billion, having reduced by 42.1% compared to 2019.

In the balance of international services, there was a reduction in the deficit. The coronavirus spread has led to a massive closure of borders and limited mobility of the population, so the expenses of non-residents on trips to Kazakhstan decreased by 81.4%, while the expenses of citizens on trips abroad decreased by 70.1%. In addition, the balance of international services was positively impacted by higher rail revenues and lower costs of other business services.

In 2020, there was a narrowing of the primary income deficit. A large volume of foreign direct investment is concentrated in the oil and gas industry. Due to the decrease in oil prices, the income payable to foreign direct investors decreased significantly (34.6%). In addition, restrictive quarantine measures and border closures have led to a decrease in the number of labor migrants, thereby reducing the income of non-residents.

The balance of secondary income was formed with a surplus of $1.2 billion, due to the receipt of foreign exchange in the amount of $1.3 billion from the participants of the Karachaganak consortium, received as part of compensation for losses as a result of the dispute settlement between the Republic of Kazakhstan and the consortium.

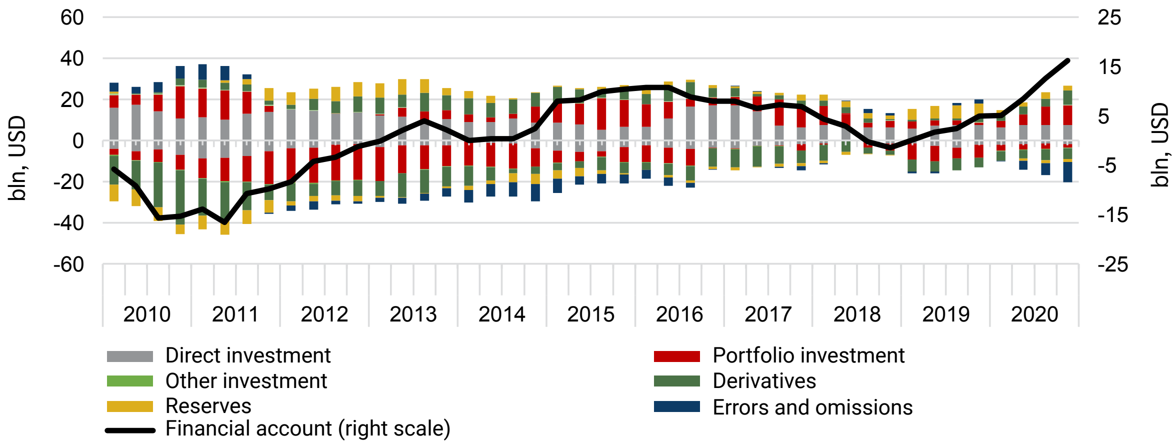
Chart 1.7 ***The current account continues to be under strong pressure***
Current account (+ debit, - credit), billion US dollars, amount for 4 quarters



Source: *NBRK*

In 2020, residents' assets decreased and liabilities increased, which led to a net inflow to the financial account (excluding reserve assets) in the amount of $15.3 billion *(Chart 1.8)*. In terms of investments, in 2020, the net inflow of direct investments ($5.9 billion) remained. Against the background of a decrease in foreign securities in the portfolio of government bodies and banks, and an increase in liabilities due to the placement of ruble sovereign bonds by the Ministry of Finance of the Republic of Kazakhstan, purchases of short-term NBRK notes by non-residents and issuance of global depositary receipts of Kaspi.kz JSC in the Q4 2020, a net inflow for portfolio investments was recorded ($7.7 billion). In 2020, there was a net inflow under "Other investments" article ($1.8 billion), which is associated with the attraction of a government loan from the Asian Development Bank in the amount of 0.9 billion euros. At the end of 2020, reserve assets amounted to $35.6 billion (21% of GDP), which could cover 9.7 months of Kazakhstani imports of goods and services.

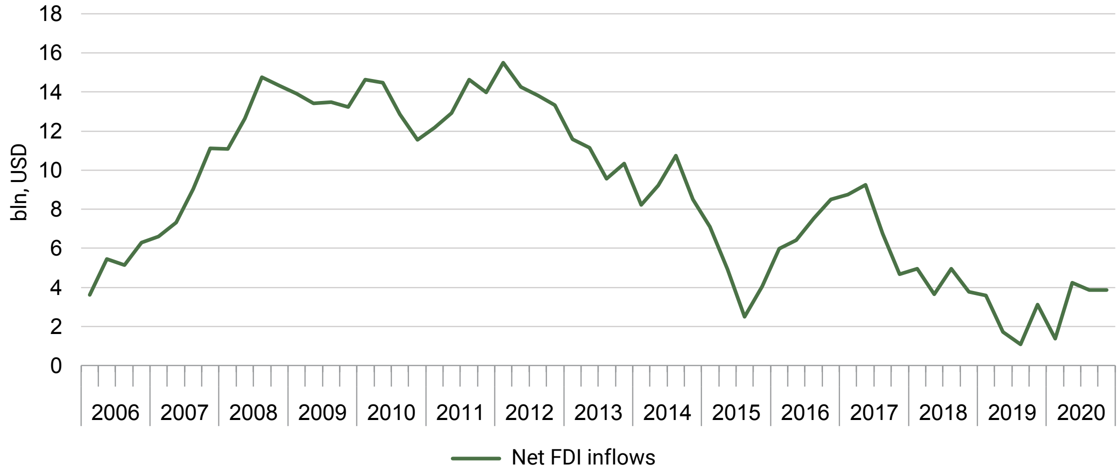
Chart 1.8 ***Against the background of capital outflow, the current account deficit was financed by reserves***
Financial account (+ inflows / - outflows), amount for 4 quarters



Source: *NBRK*

The COVID-19 pandemic has had a negative impact on foreign direct investment *(Chart 1.9)*. In 2020, the gross inflow of foreign investment decreased by 30% compared to 2019 and amounted to $17 billion. As in 2019, the largest investment inflow is concentrated in the mining industry and quarrying (48%). However, amid falling oil prices, investments in crude oil and natural gas production declined by 47%, and gross inflows amounted to $6.4 billion. A decline in investment was observed in almost all sectors, including manufacturing, construction, trade and agriculture. Since the inflow of foreign direct investment is one of the sources of financing the current account, such dynamics may put additional pressure on the country's balance of payments.

Chart 1.9 ***COVID-19 Pandemic Continues to Constrain FDI Growth***
Net inflow of FDI, amount for 4 quarters



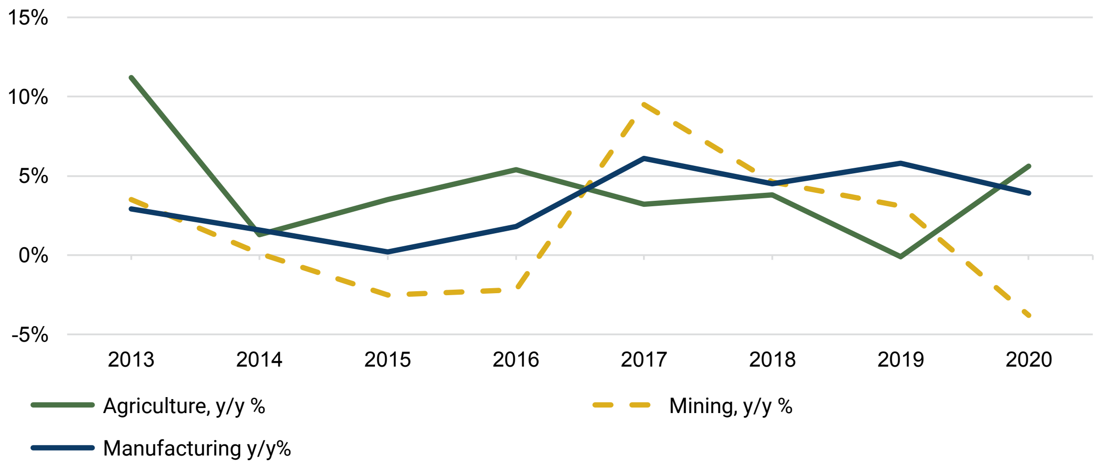
Source: *NBRK*

1.3 Economic growth

In 2020, in response to the announced quarantine measures aimed at slowing the coronavirus infection spread, including, among other things, reducing the working day, limiting and suspending the activities of enterprises, the economic activity significantly decreased. By the end of 2020, the growth rate made up 2.6%.

The impact of the quarantine regime on the business environment was multidirectional for different sectors of the economy. For example, sectors of the economy producing essential goods and services, such as food or communication technology, were less affected by strict quarantine measures, since they continued to work both in face-to-face and virtual formats. These sectors have provided the greatest job stability. Other industries, predominantly focused on less-demanding goods and services under quarantine conditions and unable to adapt to remote working hours, such as retail outlets, restaurants, hotels and the construction industry, were most vulnerable to the overall lockdown policy effects. Also, given the drop in household incomes, these sectors may face a growing demand deficit in the medium term.

Chart 1.10 ***GDP growth in tradable sectors in 2020 was supported by agriculture***
GDP growth in tradable sectors, y/y



Source: *BNS ASPR RK*

At the end of 2020, the largest decline was shown by the industries of trade, transport and operations with real estate. Positive growth rates were observed in the construction, manufacturing and communications sectors. GDP growth in tradable sectors in 2020 was supported by agriculture *(Chart 1.10)*. Today, Kazakhstan is implementing the State Program for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2017 – 2021. Its total volume will amount to 2 774.6 billion tenge. Meanwhile, at the end of 2019, there was a decrease in market lending to the agricultural sector.

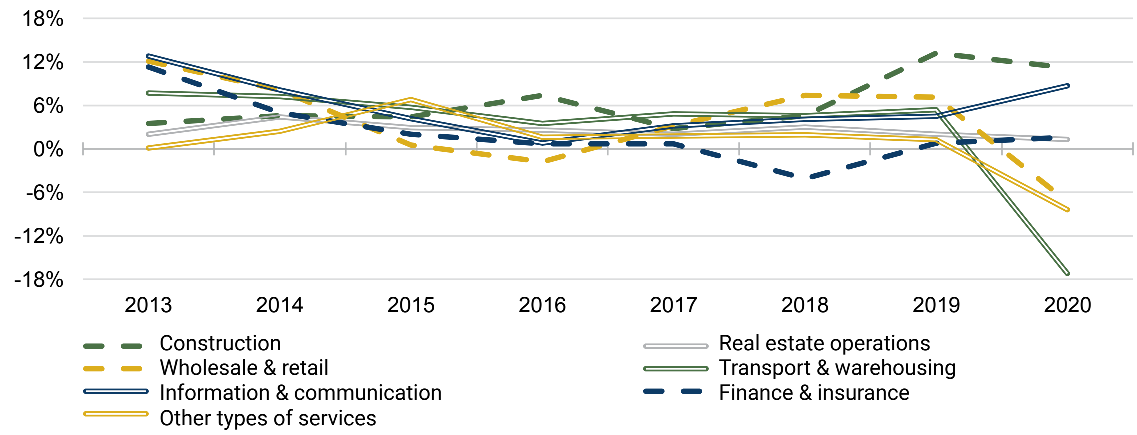
The agro-industrial sector supports not only the domestic needs of the state, but also has a high potential as a highly processed commodity in international trade. So, the industry includes agricultural production, processing and delivery to the consumer, and also provides the processing industry with the means of production. The various climatic conditions of the Republic of Kazakhstan allow growing almost all crops of the temperate heat zone and developing animal husbandry. The development of agricultural potential, agro-industrial complex, food processing can become one of the leading drivers of economic growth in the post-pandemic period and contribute to the diversification of the country's production capacity.

In the mining industry, there was a decline in production in all sectors. In particular, for the 12 months of 2020, there was a decrease in the production of non-ferrous metal ores (-0.1%), iron ore (-0.2%), natural gas (-2.2%), coal and lignite (-3.3%) and crude oil (-5.4%).

At the same time, in the manufacturing industry, there was an increase in the metallurgical industry production (+2.6%), due to an increase in the production of basic precious and non-ferrous metals (+2.8%) and ferrous metallurgy (+4.1%). In addition, the production of food (+4.0%) and beverages (+ 3.4%) increased in 2020. The growth of the economy was also contributed by the growth of light industry (+15.0%), growth in the production of pharmaceuticals (+ 47.0%), mechanical engineering (+16.3%). A decrease was recorded in the production of oil refined products (-4.0%).

Chart 1.11 ***Growth in non-tradable industries was supported by construction and information and communications sectors in 2020***

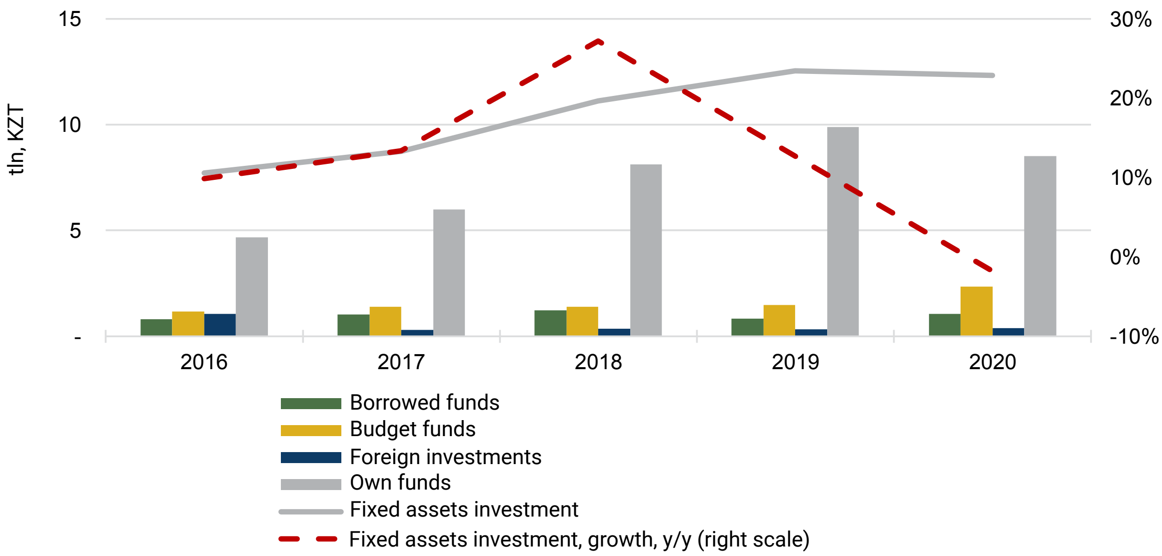
GDP growth in non-tradable sectors, y/y



Source: *BNS ASPR RK*

Among non-tradable sectors, the growth was demonstrated by the construction and information and communications sectors *(Chart 1.11)*. In particular, in 2020, as a result of the continued implementation of infrastructure and housing projects under government programs, the construction industry growth amounted to 11.2% compared to 2019. The information and communications industry growth was caused by the high demand for information and communications services due to the massive shift to remote operation. In addition, under the influence of quarantine restrictions, wholesale and retail trade, transport and warehousing, financial and insurance activities, and real estate transactions decreased compared to 2019.

Chart 1.12 ***The rates of investment in fixed assets continued to decline***
Funding sources for investments in fixed capital



Source: *BNS ASPR RK*

In 2020, the largest share in the structure of investment financing accounted for own funds *(Chart 1.12).* Despite a significant increase in investments due to budgetary (+58%) and borrowed funds (+25.1%), investments in fixed capital declined. These dynamics are conditioned by an increase in the share of own funds in the financing structure (from 73% in 2019 to 79%), and a decrease in the volume of investments from own funds (-14%). According to economic theory, investments play a major role in ensuring sustainable economic growth. Long-term sustainable economic growth requires investments in machinery and equipment, in human capital and knowledge. The observed decline in fixed capital investment signals a deterioration in the prospects for economic activity in the future, which, among other things, may be caused by the low access of enterprises to market lending.

1.4 Monetary Policy, Foreign Exchange and Money Market

The dynamics of economic indicators in Kazakhstan in 2020 were significantly influenced by shocks associated with the coronavirus pandemic and the fall in oil prices. The introduction of quarantine associated with the coronavirus pandemic had a multidirectional impact on the components of inflation. On the one hand, the decline in household incomes, further financial uncertainty, as well as the transition to remote work reduced the consumption of certain types of goods, which slowed down the rise in prices for these goods. On the other hand, the uncertainty about the epidemiological situation has increased the demand for essential goods - food and medicine, and the transition to remote work, the demand for household items and appliances. Moreover, the risks of rising inflation increased as a result of the weakening of the national currency following the drop in oil prices in March 2020.

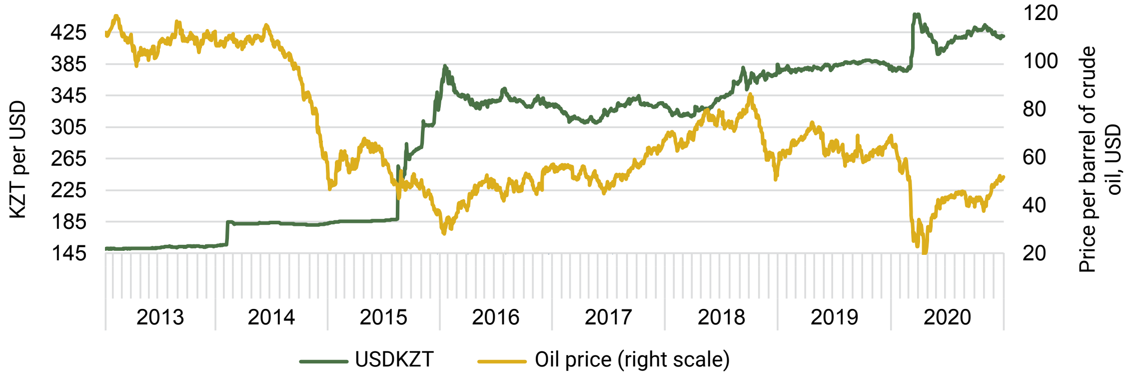
The impact of monetary policy on aggregate demand remains limited due to a number of institutional and structural factors. The ability to expand demand through the credit channel is constrained by high credit risk, mainly in the non-tradable sector, while the ability of banks to absorb credit risk is limited. The exchange rate channel continues to play a significant role in the transmission of monetary policy.

Remaining committed to the policy of a floating exchange rate, the regulator provided only a minimal presence in the foreign exchange market as a resource for maintaining sufficient liquidity in times of sharp jumps in market uncertainty. The increase in the value of the tenge in March-April 2020 through the interest rate channel and the opportunity to use the Frankfurt trading mode for the tenge - US dollar currency pair, under certain conditions, made it possible to stabilize the liquidity level at critical moments at the expense of market resources, and thus limit the volatility of the exchange rate. Despite the attempts made to reduce inflation risks, inflation, which went beyond the upper limit of the target corridor of 6% in March 2020, remained outside of it until the end of the year, amounting to 7.5% at the end of 2020.

External shocks, exchange rate policy of the national currency and the foreign exchange market.

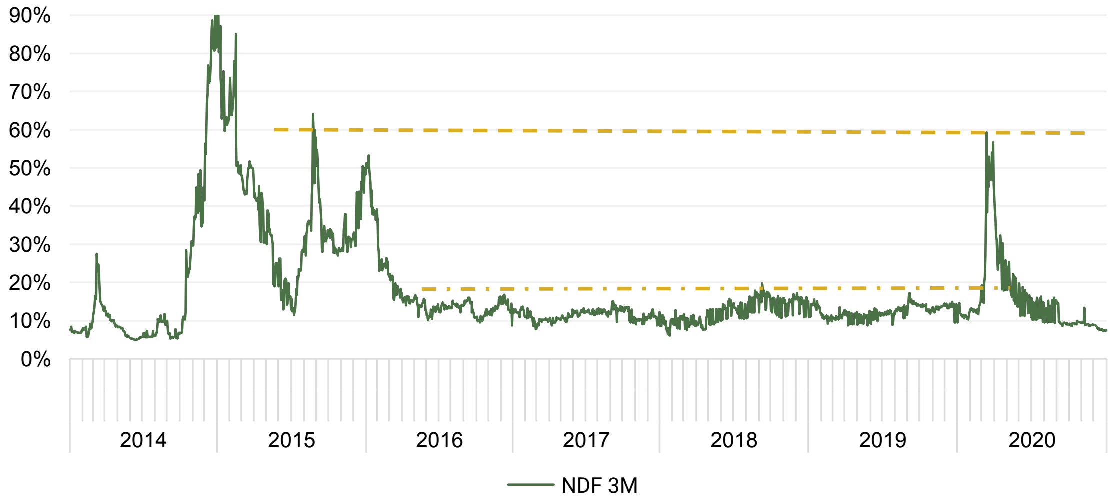
The exchange rate of the national currency of Kazakhstan in 2020 was formed under the influence of external factors. The high level of world oil reserves amid falling demand due to the coronavirus pandemic and the failure of OPEC+ countries to reduce production levels, brought down oil prices in March 2020. By the end of March, oil prices reached their historic lows in 20 years. Thus, as of March 30, 2020, the price of Brent crude oil dropped to $22.76 per barrel. For Kazakhstan, the situation was aggravated by the introduction of a state of emergency from March 16, 2020, due to the coronavirus pandemic. The foreign exchange market of Kazakhstan responded to the current events by a weakening of the tenge and an increase in the risk premium. In March 2020, the tenge depreciated against the US dollar by 18% *(Chart 1.13)*, and the NDF yield on the dollar tenge currency pair increased to 60% *(Chart 1.14)*. In April, the tenge began to recover. In general, the decrease in the exchange rate of the tenge against the dollar in 2020 was 10%.

Chart 1.13 ***The fall in oil prices, as expected, reduced the tenge exchange rate***
Tenge exchange rate and oil price



Source: *NBRK, Bloomberg*

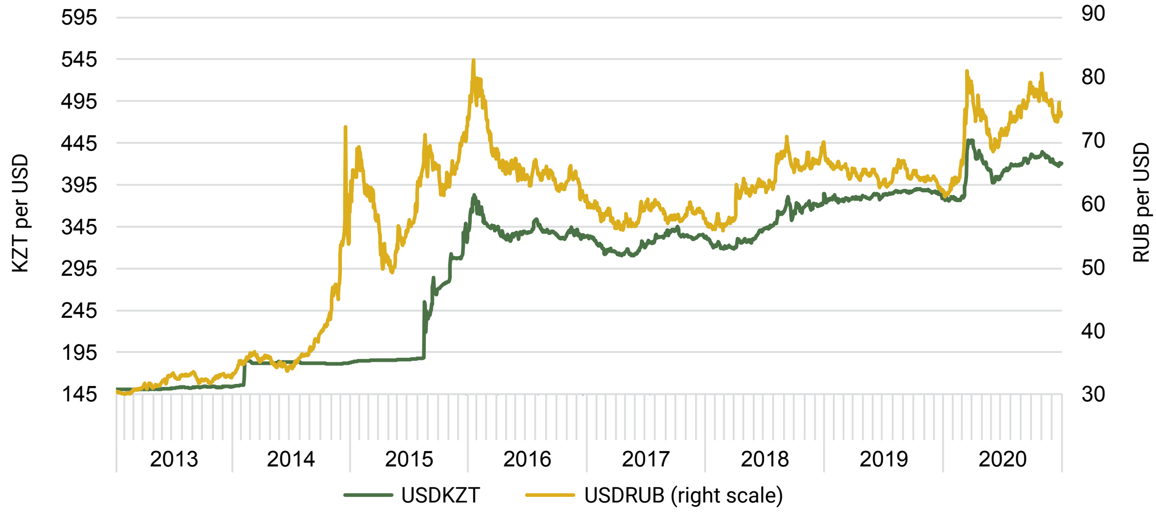
Chart 1.14 ***External shocks provoked a surge in the risk premium for tenge assets***
NDF rate for USD / KZT currency pair



Source: *Bloomberg*

In 2020, the tenge exchange rate and the ruble exchange rate against the US dollar showed similar dynamics *(Chart 1.15)*, the weakening of the ruble took place in the same periods as the weakening of the tenge, namely in March and September 2020. The depreciation of the ruble in March, like the tenge, was due to the fall in oil prices. In September, the risks of further spread of coronavirus infection increased, and global rates of COVID-19 infection in European countries were the highest on record. Despite the fact that there were no fundamental factors for the decline in oil prices in September 2020, due to the fears of a second wave of the pandemic, there was a decrease in the investors' risk appetite and their outflow from emerging markets in favor of so-called safe-haven assets, such as the US dollar, the Japanese yen, gold, etc. Moreover, during this period, the Russian currency was under pressure from the Caucasus conflict aggravation. Thus, in September, the cost of Brent crude oil fell by 10%, while the weakening of the tenge and the ruble amounted to 3% and 5%, respectively.

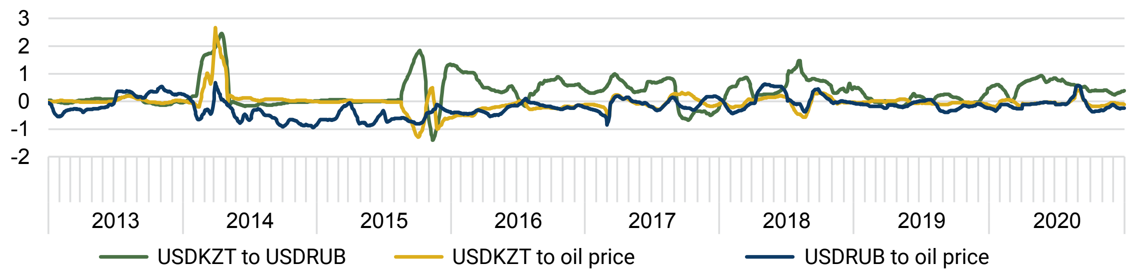
Chart 1.15 ***The ruble was weakening along with the tenge amid falling oil prices***
Tenge rate and ruble rate



Source: *NBRK, Bloomberg*

Since March 2020, there has been an increase in the sensitivity of the tenge exchange rate to external factors *(Chart 1.16)*. The elasticity of the tenge to the oil price has significantly increased. The increased elasticity of the tenge to the ruble exchange rate was more likely a consequence of the increased sensitivity of the ruble to oil prices in March 2020 and the decrease in the tenge and the ruble exchange rates in September, while in September the ruble was under the influence of specific factors. As a reminder, in 2019, due to the fiscal rule introduction by the Russian government, there was a decrease in the sensitivity of the ruble to oil prices (Financial Stability Report of Kazakhstan 2018-1H2019).

Chart 1.16 ***An increase in the sensitivity of tenge to the ruble exchange rate is conditioned by an increase in the elasticity of both currencies to oil prices***
Elasticity of tenge to oil price and to ruble

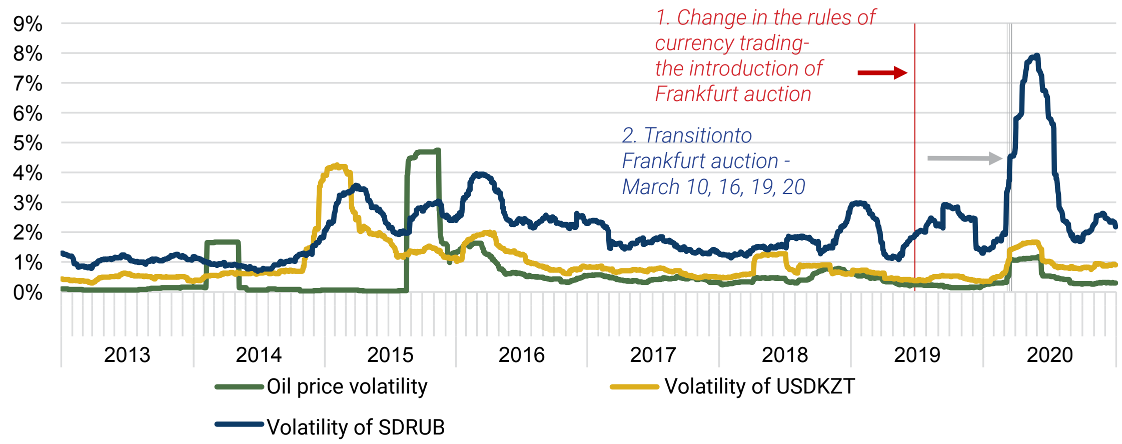


Source: *NBRK calculations*

Thus, according to the budget rule introduced in 2018 all oil and gas revenues received by Russia at an oil price higher than the cut-off price set in the budget are used for the purchase of foreign currency by the RF Ministry of Finance for subsequent placement in the National Welfare Fund. The cut-off price was fixed at $40 per barrel at 2017 prices, followed by the annual indexation of 2% starting in 2018. At the same time, reserves are spent if the oil price falls below the cut-off price, which happened in 2020. Nevertheless, despite the sale of currency by the Bank of Russia in March 2020, the ruble still depreciated. In general, the weakening of the ruble amounted to 19.5% for 2020.

A significant increase in the volatility of oil prices in 2020 was reflected in an increase in the volatility of the tenge exchange rate *(Chart 1.17)*. At the same time, a further increase in the volatility of the tenge exchange rate was restrained by the following factors: interventions by the NBRK, the transition of currency trading to the Frankfurt auction mode at times of high volatility. Thus, on July 1, 2019, amendments were made to the foreign exchange trading rules to ensure market liquidity and in such a way reduce the volatility of the foreign exchange market. According to the new rules, trading on the USDKZT_TOM instrument from the continuous counter auction mode switches to the Frankfurt auction mode when the potential trade price deviates by 1.5% from the previous day's closing price, if this is the first deviation of counter bids during the day, or from the Frankfurt auction which has already taken place on the current day. The mode of the Frankfurt auction lasts about 6-7 minutes, during this period the cut-off price for the submitted bids is determined, at which it is possible to satisfy the maximum volume of the bids submitted. Following the completion of the Frankfurt auction, the auction switches back to the continuous counter auction mode. Due to the increased volatility in March 2020, trading in the USD / KZT currency pair for the first time switched to the Frankfurt auction mode on March 10, and subsequently, during March, the Frankfurt auction mode was launched on March 16, 19 and 20.

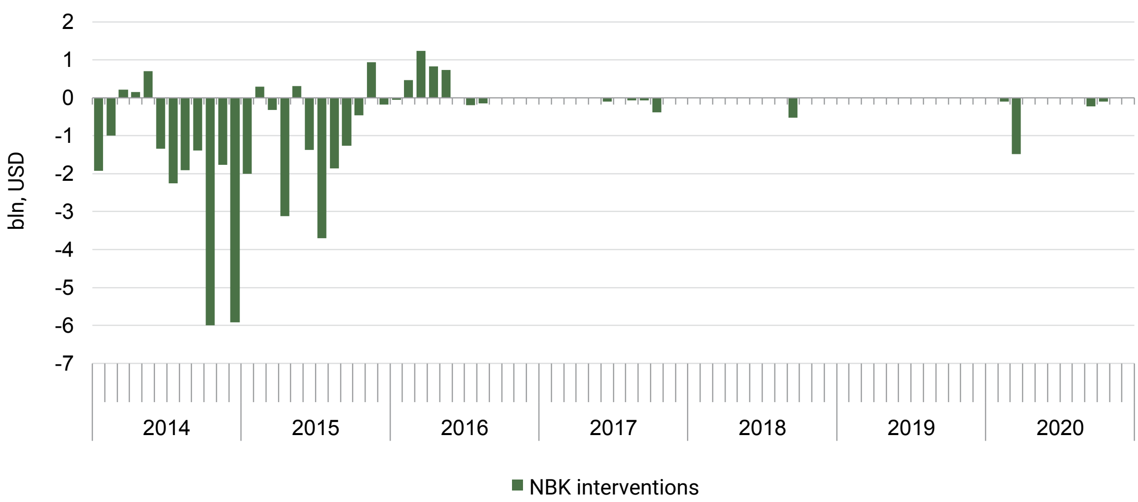
Chart 1.17 ***The volatility of the tenge was restrained at the moments of its growth by the transition of trading to the Frankfurt auction mode and an increase in the supply of foreign exchange liquidity***
Volatility of tenge, ruble and oil prices



Source: *NBRK calculations*

In the periods of uncertainty leaps and significant pressure on the national currency rate during 2020, the NBRK selectively intervened to stabilize the situation in the foreign exchange market. The total volume of net interventions for 2020 amounted to $1.9 billion *(Chart 1.18)*.

Chart 1.18 ***During 2020, the NBRK intervened exclusively during periods of decreased supply of foreign exchange liquidity***
NBRK interventions in the foreign exchange market

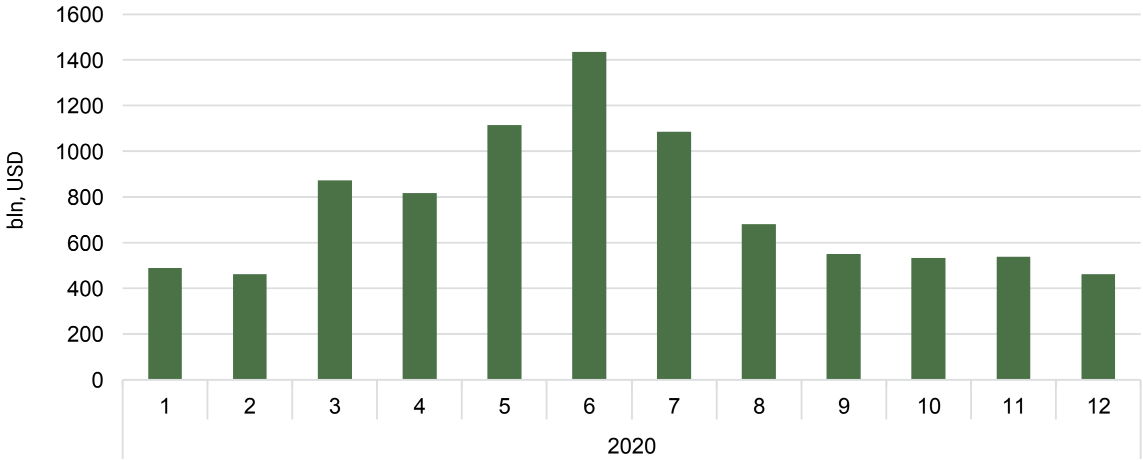


Source: *NBRK*

Starting from March 2020, against the background of the anti-crisis measures implementation, an increase in the supply of foreign currency was observed due to the conversion of transfers from the NF RK *(Chart 1.19)*. The maximum volume of currency sales fell on June 2020; $1.4 billion were sold in June through transfers from the NF RK. In total, the volume of foreign exchange sales through transfers of the NF RK amounted to $9 billion for 2020.

Chart 1.19 ***From March to August 2020, the supply of foreign currency increased due to the conversion of transfers from the National Fund***

Sales volume in the foreign exchange market at the expense of the transfers from the National Fund

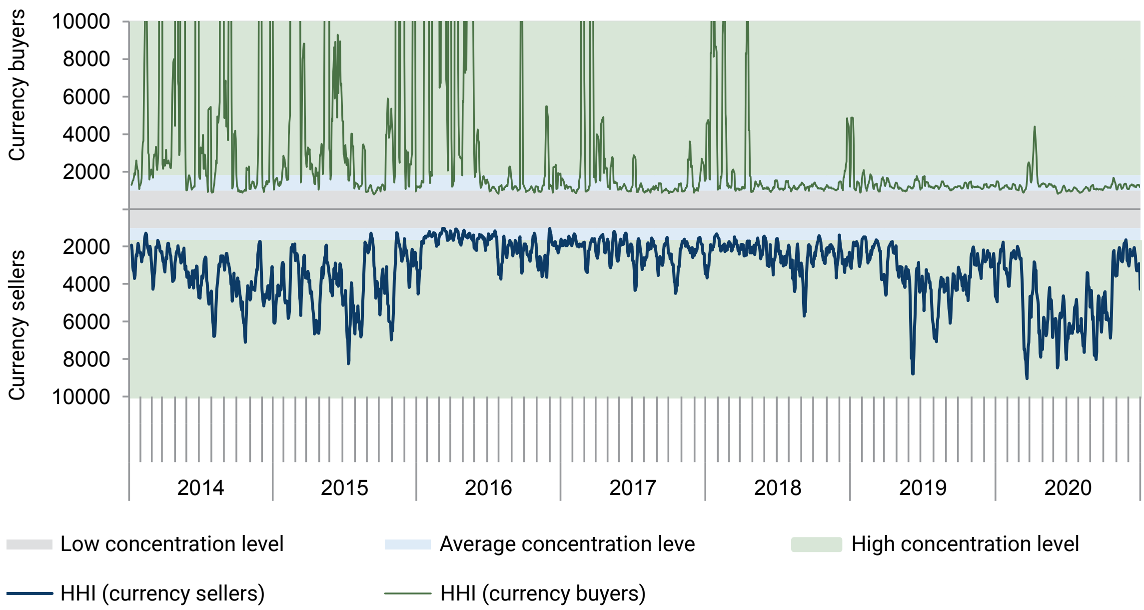


Source: *NBRK*

The historically high concentration of participants on the US dollar selling side is due to the economy structure, which distorts the pricing in the foreign exchange market. The growing concentration on the dollar selling side during the period of uncertainty, given the coronavirus spread dynamics, indicated an increase in expectations for a weakening of the tenge and a decrease in the willingness of market participants to take a long position in the tenge.

Chart 1.20 ***Growth of concentration of the market of currency sellers with increasing pressure on the tenge exchange rate***

Currency spot market concentration

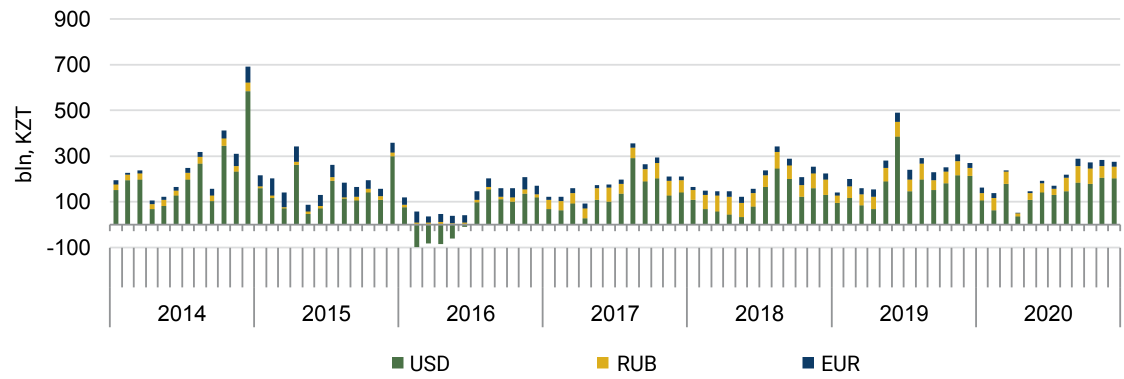


Source: *NBRK calculations*

Note: *HHI is the Herfindahl-Hirschman index, which is calculated by squaring the market share of each participant competing in a market and then summing the resulting numbers; Concentration is calculated as HHI moving average for 5 consecutive days*

Transactions with foreign currency in exchange offices reflect the population need in foreign currency in cash. Exchange offices continue to be net buyers of foreign currency from the population, the most popular currencies are the US dollar, ruble and euro. The volume of net purchases in three currencies in tenge equivalent amounted to 2.4 trillion tenge for 2020, which is 24% less than it was last year. The decrease in the cash currency purchase by the population was conditioned by the closure of borders in connection with the coronavirus pandemic, as well as the introduction of a state of emergency from March 16 to May 11, 2020 and other restrictive measures throughout the year.

Chart 1.21 ***Growth in demand for foreign currency upon opening of the borders of the Republic of Kazakhstan in 2020***
Net purchase (-) / sale (+) of foreign currency by exchange offices

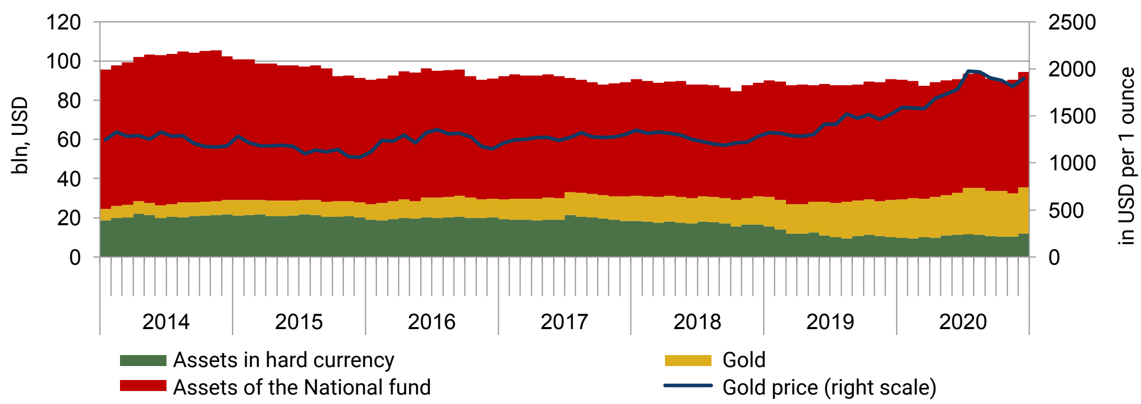


Source: *NBRK*

The maximum volumes of foreign currency purchases by the population in exchange offices fell on March 2020 and the last four months of 2020. The growth in the volume of foreign currency purchases since September is presumably associated with the opening of borders to some countries *(Chart 1.21)*. In September 2020, the borders with Russia were opened, which increased the demand for rubles, especially in areas bordering Russia.

The NBRK continues to maintain the level of international reserves, which is sufficient to ensure the country's solvency in foreign currency in the event of stress situations *(Chart 1.22)*. At the end of 2020, gross international reserves amounted to 35.6 billion tenge, which, according to the NBRK's calculations, exceeds the international reserves adequacy indicators: the amount of coverage for three-month imports, payments on external debt in the next 12 months, and other indicators. In 2020, gross international reserves grew by $6.7 billion, or 23%, of which an increase by $4.7 billion was driven by the gold growth in the portfolio. In some periods of pressure on the exchange rate (March-April, September-October 2020), there was a decrease in international reserves in freely convertible currency (hereinafter referred to as FCC), but they were subsequently restored and at the end of 2020 amounted to $12 billion.

Chart 1.22 ***NBRK continues to maintain a significant level of international reserves with a high proportion of gold reserves***
International reserves and assets of the NF RK

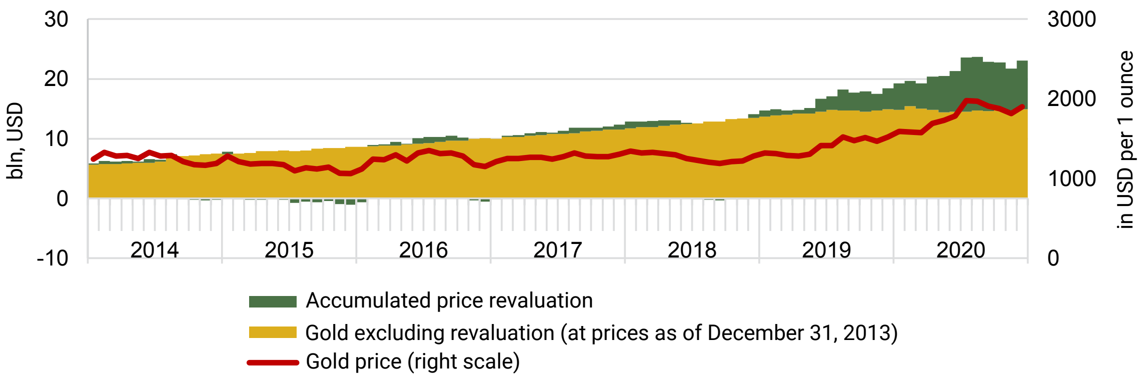


Source: *NBRK*

Gold still occupies a significant share in international reserves assets; at the end of 2020, the share of gold in international reserves was 66%. Taking into account that during periods of crisis, when the value of most assets decreases, the value of gold usually rises, the presence of gold reserves increases the diversification of the international reserves portfolio and increases its resilience to external negative factors. Thus, during the global economic crisis in 2020, the gold price continued to grow and in August reached the level of $2063 per ounce, exceeding the all-time high of 2011 *(Chart 1.23)*.

Thus, the gold growth in FX reserves portfolio in 2020 was conditioned by revaluation; in general, during the analyzed period, the gold price increased by 25%.

Chart 1.23 ***The gold growth in international reserves was conditioned by raise in gold price***

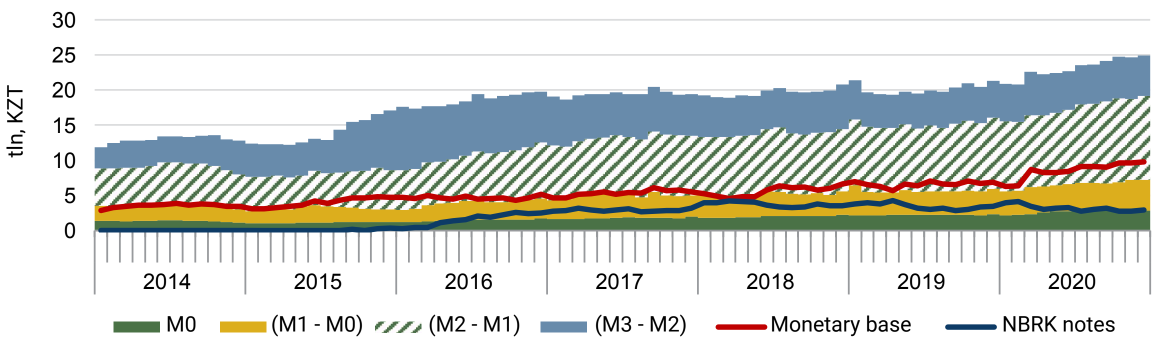


Source: *NBRK*

Monetary Aggregates, NBRK Operations and the Money Market

The monetary base in 2020 increased significantly, mainly due to transferable deposits with the NBRK *(Chart 1.24)*. The monetary base increase in 2020 amounted to 41.8%; at the end of 2020, the monetary base amounted to 9.8 trillion tenge. As part of the expansion of programs to support the economy, additional capitalization of the Kazakhstan Sustainability Fund JSC was carried out in 2020. The contribution of cash outside the NBRK system remains stable and at the end of 2020 amounted to 3.2 trillion tenge.

Chart 1.24 ***The increase in the monetary base is conditioned by the growth of transferable deposits in the NBRK***
Monetary indicators



Source: *NBRK*

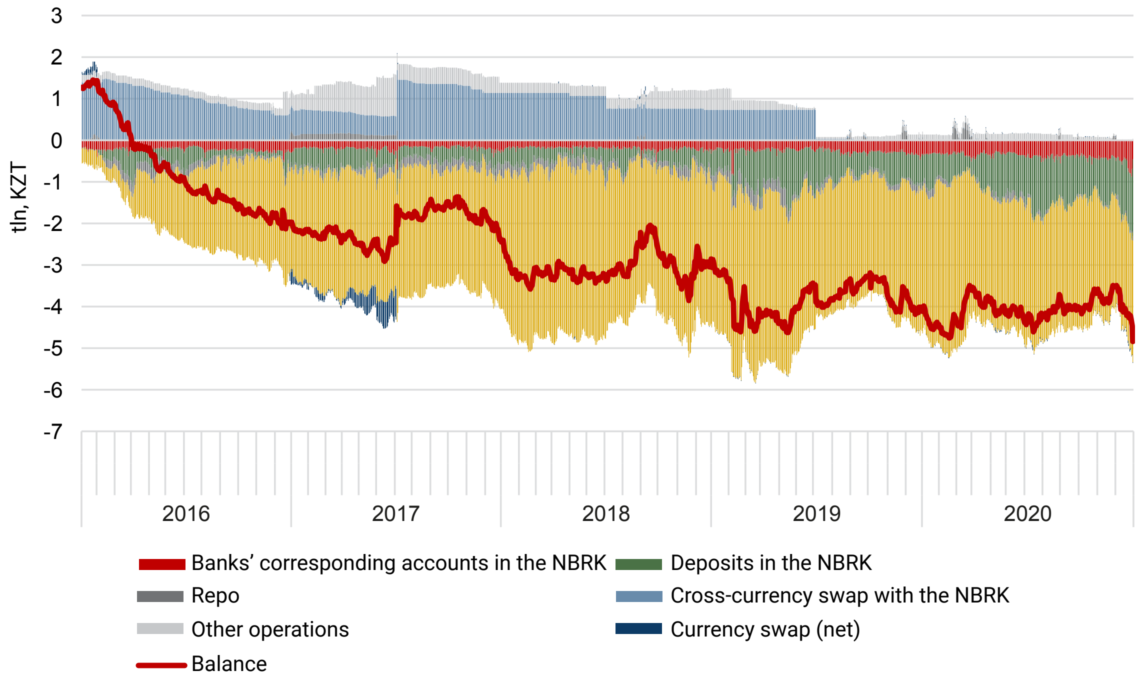
The revaluation of deposits in foreign currency, the sale of external assets and the capitalization of Kazakhstan Stability Fund JSC accumulate the main effect that determines the dynamics of money supply growth, which increased by 16.9% in 2020 (in 2019, the growth was 2.4%). Increasing claims in the economy as a result of growth in lending also makes a positive contribution to the growth of the money supply (growth in net claims in the economy amounted to 13.6% p/p in December 2020). Thus, at the end of 2020, the M1 indicator of monetary aggregate amounted to 7.1 trillion tenge, and the M2 indicator amounted to 19.1 trillion tenge.

In the analyzed period, the financial market continues to function in conditions of excess liquidity, and the NBRK acts as a net buyer of liquidity in the financial market *(Chart 1.25)*. In January-February 2020, the volume of operations to withdraw liquidity, excluding bank funds in the correspondent accounts of the NBRK, increased, so by the end of February the negative net position of the NBRK reached -4.4 trillion tenge. In March, during the period of increased instability in the foreign exchange market, the demand for tenge liquidity increased and the NBRK reduced the volume of withdrawals of tenge liquidity. In April, withdraw began to recover again; at the end of 2020, the net position on NBRK operations amounted to -4.8 trillion tenge.

The main share of liquidity withdrawals from the market in 2020 continued due to the NBRK notes. At the same time, in 2020, the share of notes in the total volume of liquidity withdrawal operations began to decline and by the end of the year it was only 60% compared to 83% at the beginning of the year. The reduction in the share of notes was due to the suspension by the NBRK of issuing annual notes in July 2020 and limiting the volume of notes issuance with a maturity of 182 days at the level of 100 billion tenge within 1 auction from the Q4 2020 in order to increase the attractiveness of the GS of the MF RK, as well as increasing the share of liquidity withdrawal at the expense of NBRK deposits. In general, in 2020 the volume of notes in circulation decreased from 3.4 to 2.9 trillion tenge, and deposits with the NBRK increased from 0.9 to 1.8 trillion tenge.

The volume of liquidity provision transactions was insignificant throughout the analyzed period, and after the maturity of the interest rate swap in July 2019, the volume of liquidity provision transactions did not exceed 14% of the NBRK's net position.

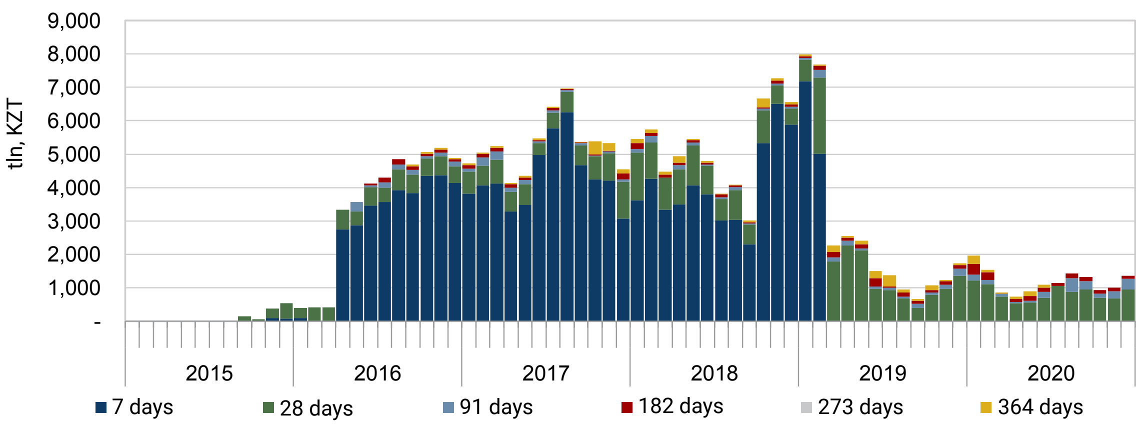
Chart 1.25 ***NBRK continues to act as a net buyer of liquidity in the financial market***
Open position on NBRK operations



Source: *NBRK*

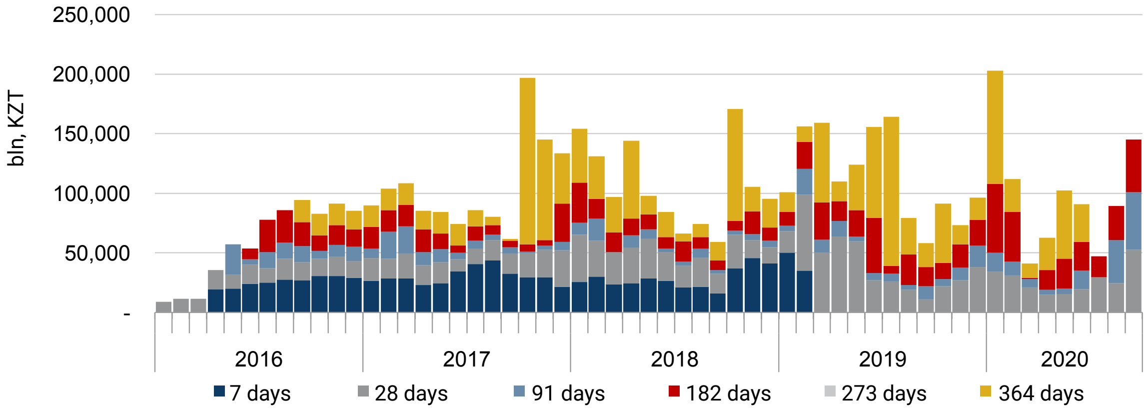
In 2020, the NBRK continued to work on improving the efficiency of liquidity binding instruments: it placed notes with a maturity of 28 days or more, and held deposit auctions. In February 2019, the NBRK stopped issuing notes with a maturity of 7 days, which are in the highest demand, and began to withdraw liquidity during this period using deposit auctions *(Chart 1.26)*.

Chart 1.26 ***The largest volume of placement falls on the notes with a maturity of 28 days***
Initial placement of notes in terms to maturity



Source: CSD

Chart 1.27 ***In 2020, the NBRK suspended the issuance of annual notes and limited the issuance of 6-month notes in order to increase the demand for the GS of the MF RK***
Primary placement volumes of notes in terms to maturity, weighted by terms



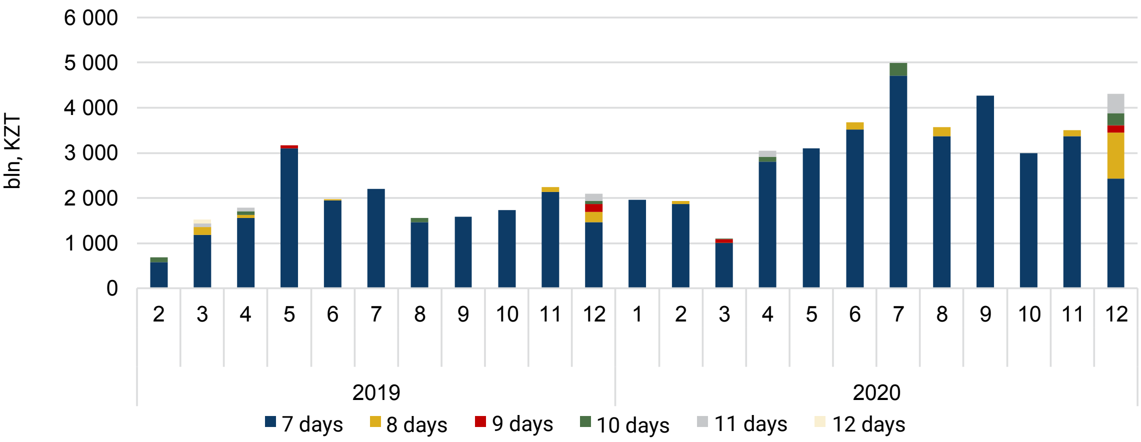
Source: *CSD*

As a result, the volume of auctions for notes decreased 4 times. Preference was given to deposit auctions due to their greater stability as an instrument for withdrawing liquidity, since deposits, unlike notes, are not accepted as collateral to obtain additional liquidity.

It should be noted that in order to channel liquidity into the of the GS of the MF RK to finance the budget deficit, the NBRK suspended the placement of annual notes and limited the issuance of 6-month notes, and the MF RK resumed issuing MEKKAM - discount bonds with a maturity of up to one year, and also began to conduct additional placement of GS with a maturity of up to 3 years *(Chart 1.27)*. As a result, part of the banks' demand shifted to short-term GS of the MF RK.

Since the NBRK activated the issuance of notes in 2016, the ones with a maturity of 7 days have enjoyed the greatest popularity. In February 2019, the NBRK stopped issuing them, and demand shifted partly to deposit auctions of comparable maturities and partly to longer-term notes. The total amount of liquidity withdrawn through deposit auctions in 2019 amounted to 18.9 trillion tenge, and 35.5 trillion tenge for 2020 *(Chart 1.28)*. For comparison, 7-day notes accounted for 51.9 trillion tenge withdrawal of liquidity in 2017, and 48.6 trillion tenge in 2018.

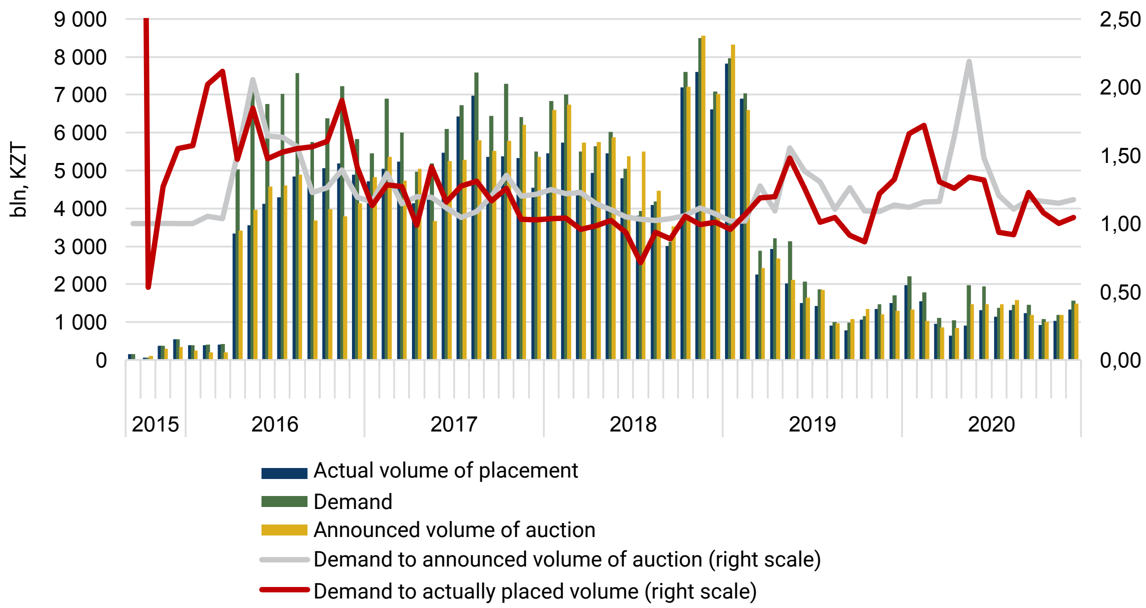
Chart 1.28 ***Short-term deposits replaced 7-day notes***
Deposit auctions in terms of timing



Source: *NBRK*

In general, the demand for NBRK notes in 2019-2020 exceeded the placed volumes, while there was a decrease in comparison with the previous periods *(Chart 1.29)*. The quantitative decrease in demand for NBRK notes after February 2019 is explained by the termination of the issuance of 7-day notes and the beginning of deposit auctions. Thus, part of the STB's demand was shifted to deposit auctions, and part of the demand flowed to the government securities of the Ministry of Finance of the Republic of Kazakhstan. In addition, with the lengthening of the terms of the placed notes, the need to withdraw the released liquidity arose less often.

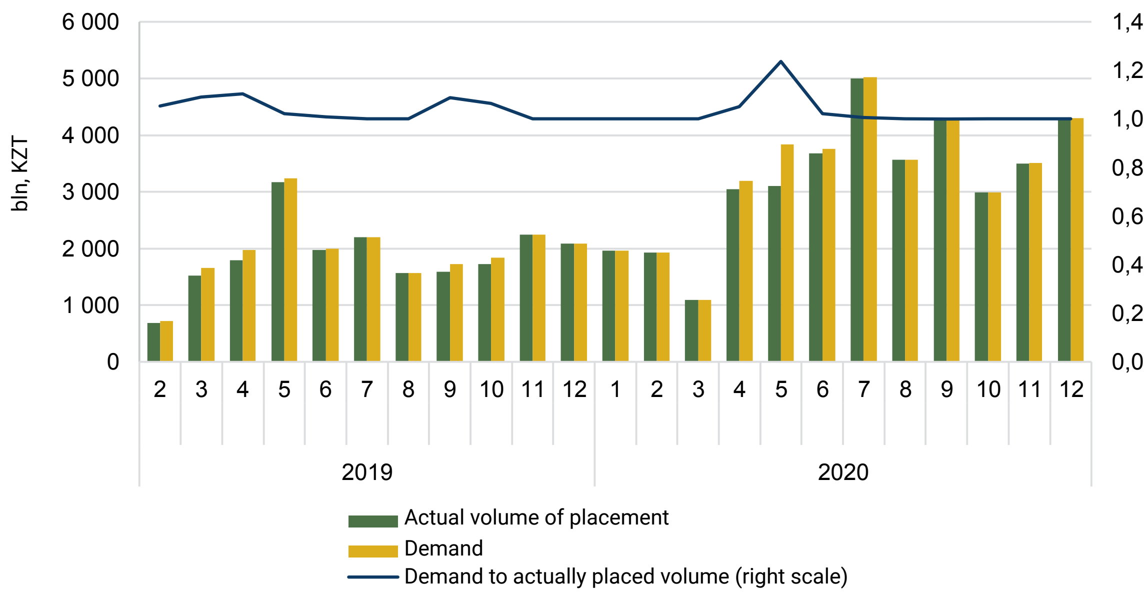
Chart 1.29 ***Demand for notes is decreasing due to partial replacement by deposit auctions and GS of the MF RK***
Announced volume, demand and actual volume of placement of NBRK notes



Source: *NBRK*

Market participants' demand for deposit auctions remained stable in 2020, except for periods of pressure on the exchange rate of the national currency, and was met by the NBRK almost completely *(Chart 1.30)*. In March, against the background of the deteriorating economic situation and the weakening of the tenge, the demand for tenge instruments fell sharply, which affected the placement of notes and deposits by the NBRK.

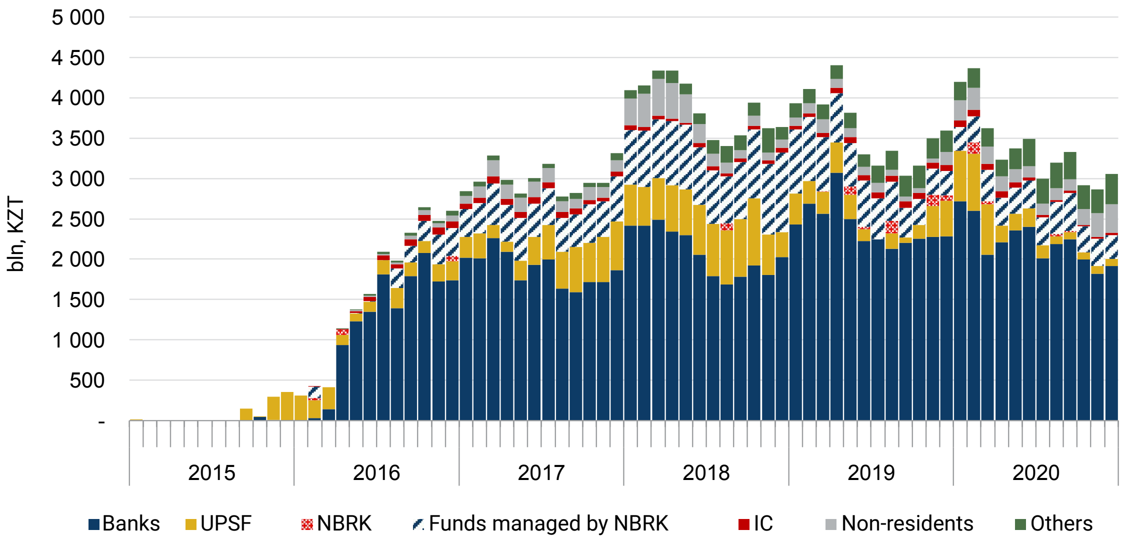
Chart 1.30 ***The NBRK almost completely meets the demand for deposits***
Demand and actual volume at deposit auctions



Source: *NBRK*

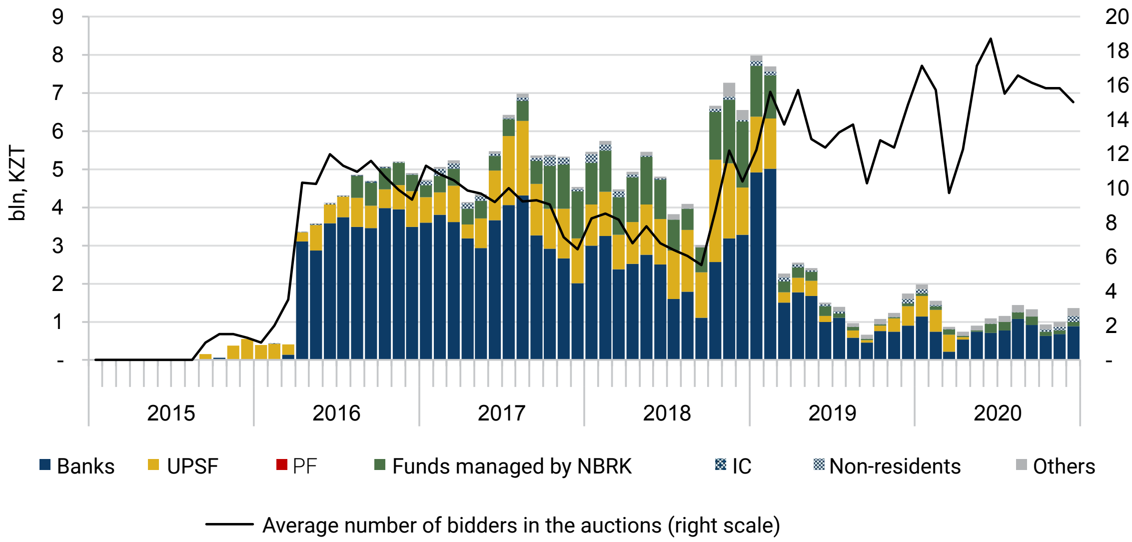
In 2020, banks continued to be the main investors in the notes market *(Chart 1.31)*. At the same time, in Q1 2020, the captive investors share increased significantly. In March 2020, during a rise in risk premiums and a fall in demand from market investors for tenge instruments, the UPSF and funds managed by the NBRK placed 69% of notes *(Chart 1.32)*.

Chart 1.31 ***STBs remain the main holder of the NBRK notes***
The NBRK Notes in Circulation in terms of Holders



Source: *CSD*

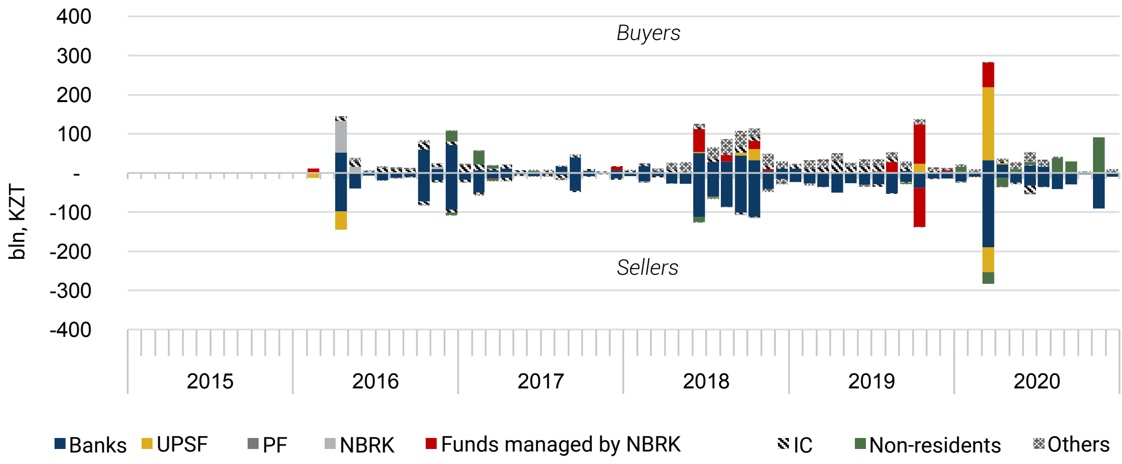
Chart 1.32 ***The demand for the NBRK notes was reduced during the period of pressure on the tenge exchange rate***
Initial placement of NBRK notes by participants



Source: *CSD*

The secondary market for circulation of the NBRK notes is significantly less active in comparison with the primary market. Thus, the trading volumes in the secondary market of the NBRK notes in 2020 amounted to 643.4 billion tenge, or 4% of the trading volume in the primary market *(Chart 1.33)*. The highest degree of activity for the analyzed period was noted in March 2020, and was conditioned by the sale of notes by second-tier banks. The main purchasers were the captive investors, represented by the UPSF and funds managed by the NBRK.

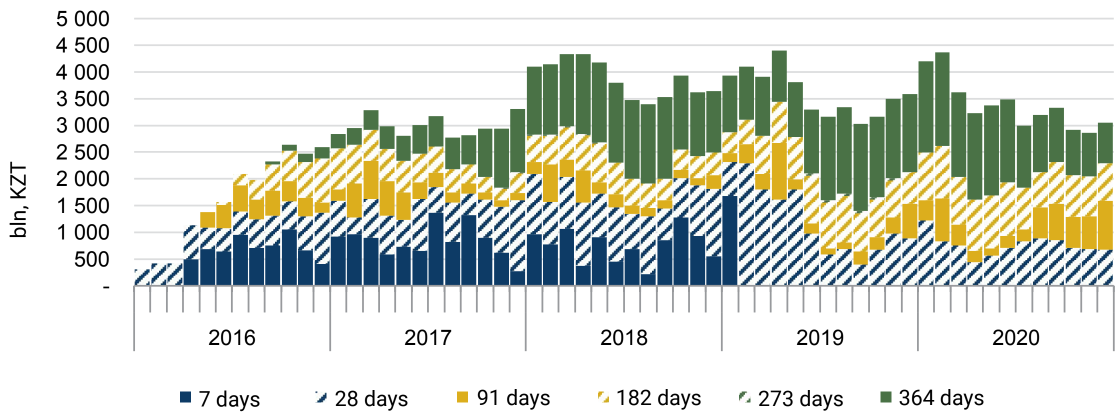
Chart 1.33 ***During the period of pressure on the tenge exchange rate, market participants left the NBRK notes market***
Secondary market of the NBRK notes



Source: *CSD*

As a result of the suspended issuance of annual notes and the limited issuance of 6-month notes in 2020, the volume of notes in circulation decreased by 14% *(Chart 1.34)*. In the first months after the termination of the issuance of 7-day notes in 2019, the demand of market participants shifted to the next by maturity 28-day notes. However, for 2019-2020, the issued notes structure was distributed more evenly.

Chart 1.34 ***The NBRK notes position decreased by 14% in 2020***
The NBRK notes in circulation in terms of maturity

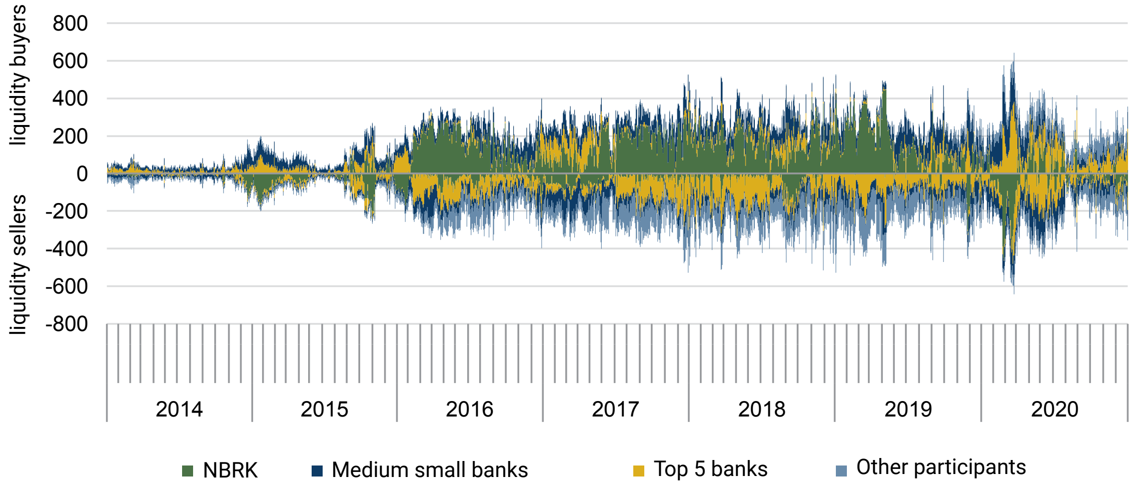


Source: *CSD*

The NBRK, which has been predominantly withdrawing liquidity since 2016, noticeably reduced its participation in the repo market in 2019-2020 *(Chart 1.35)*. At the same time, rates continued to remain within the interest rate band of the base rate and the market volumes remained at the same level, the repo market continued to perform the function of redistributing liquidity among market participants without significant participation of the NBRK. However, in February-March 2020, against the backdrop of pressure on the national currency rate and an increase in risk premiums for tenge instruments, the supply of tenge liquidity at rates within the interest rate band was limited. During this period, the NBRK began to provide liquidity.

Chart 1.35 ***The NBRK's participation in the repo market is decreasing***

Repo market volumes, bln KZT

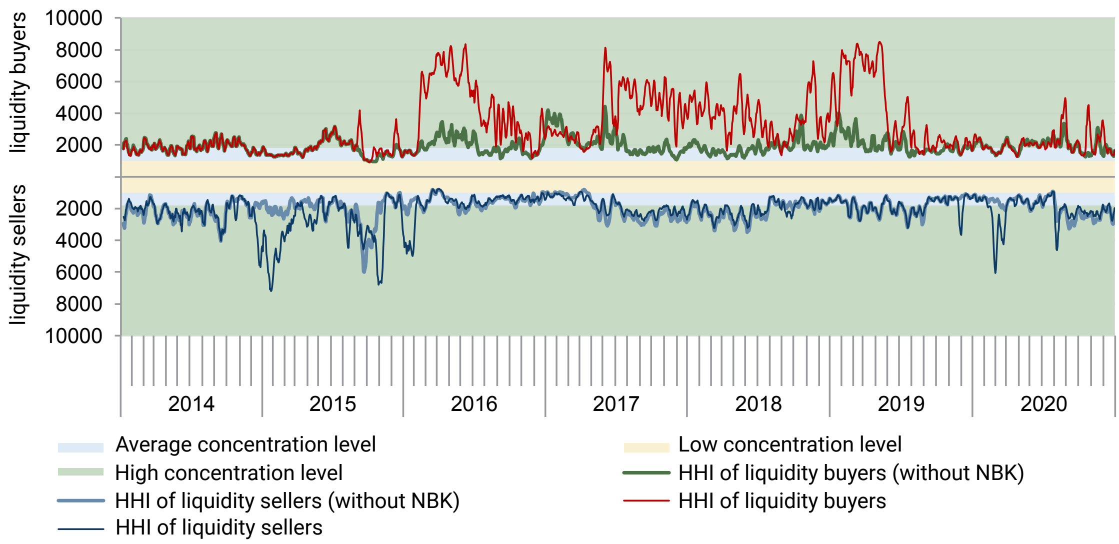


Source: *KSE*

Liquidity in the repo market in 2020 was evenly distributed. An increase in the concentration of buyers and sellers of liquidity was observed during the participation of the NBRK itself and its funds. An increase in the concentration of liquidity sellers was observed in November 2019 and in February-March 2020 as a result of the NBRK's participation during an increase in demand for tenge liquidity *(Chart 1.36)*.

Chart 1.36 ***An increase in the concentration of sellers in 2020 was observed during the NBRK's participation during periods of pressure on the exchange rate***

Repo market concentration

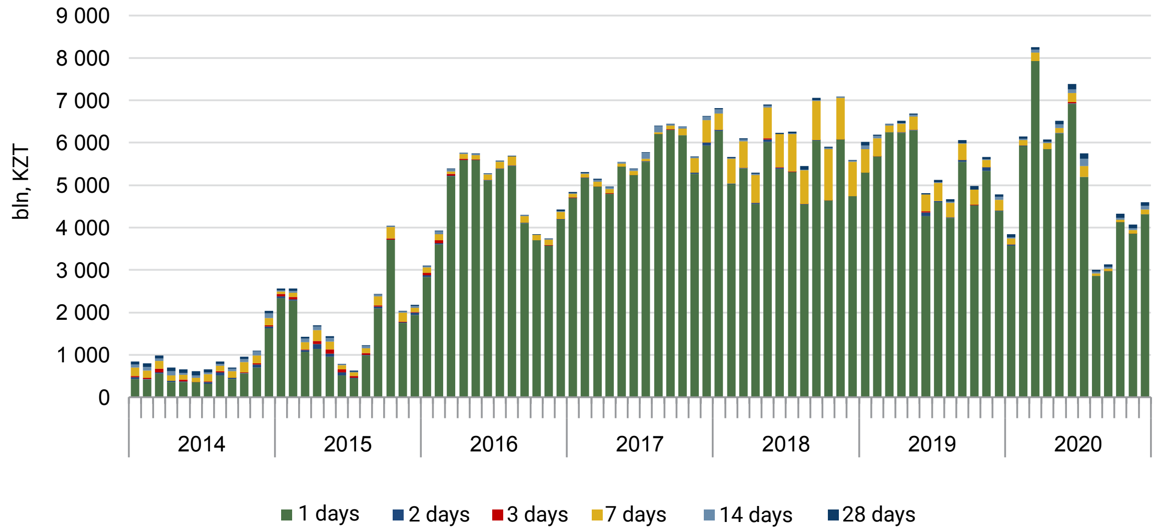


Source: *KSE, NBRK calculations*

Note: *HHI is the Herfindahl-Hirschman index, which is calculated by squaring the market share of each participant competing in a market and then summing the resulting numbers; Concentration is calculated as HHI moving average for 5 consecutive days*

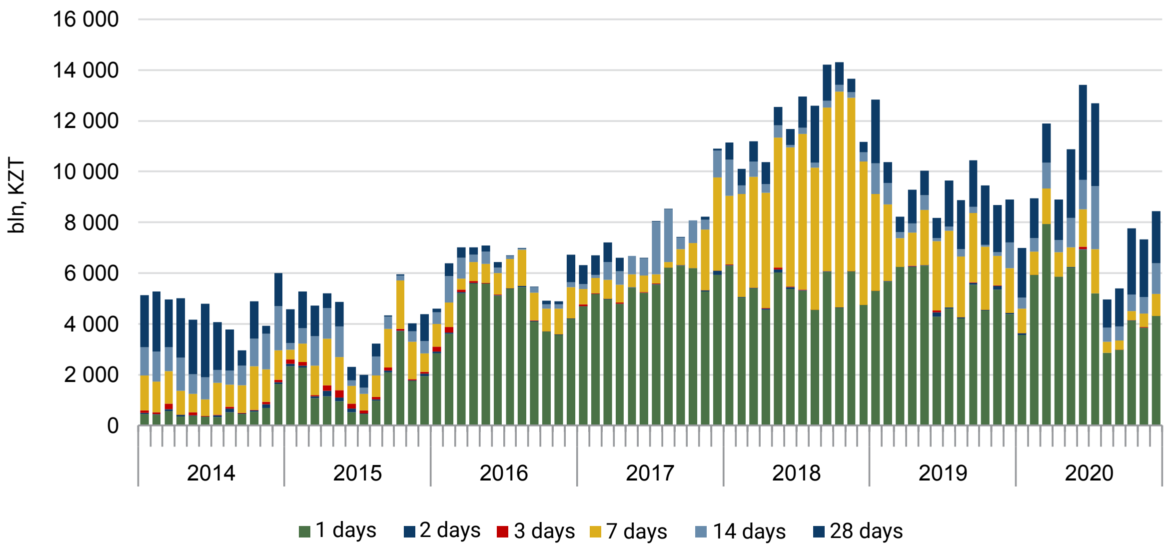
In the first half of 2020, the repo market volumes increased. In the GS repo market, the largest volume still falls on 1-day repo. 1-day repo transactions accounted for 92% of all GS repo transactions in 2019, and 95% of transactions in 2020 *(Chart 1.37)*. Transactions on the 7-day repo market, the share of which increased to 13% in 2018, decreased to 6% in 2019 and to 2% in 2020 *(Chart 1.38)*.

Chart 1.37 ***The maximum volume of transactions still falls on repo with a maturity of one day***
Volume of automatic repo transactions



Source: *KSE*

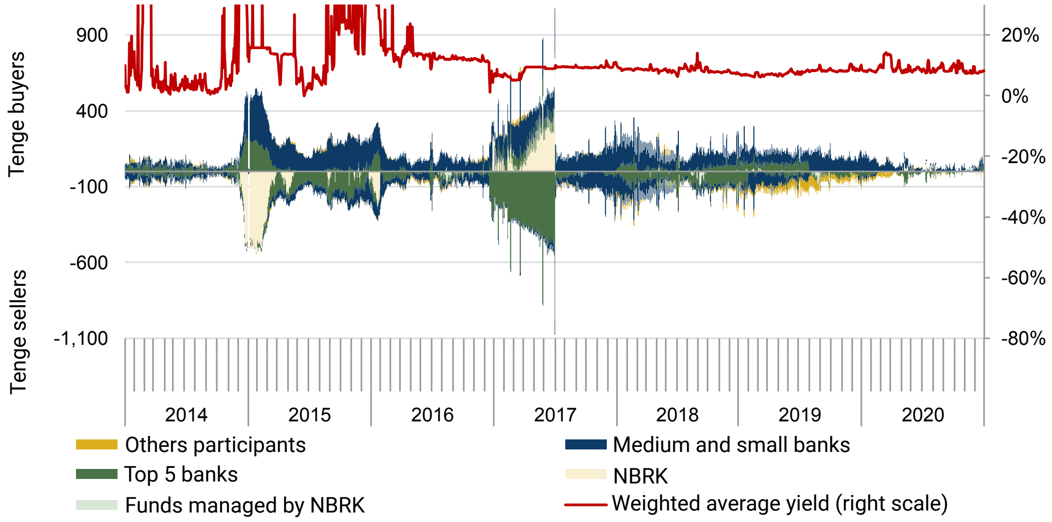
Chart 1.38 ***The share of 7-day repo declined compared to 2018***
The volume of automatic repo transactions, weighted by terms



Source: *KSE*

Decrease in dollarization of deposits in STBs and surplus of tenge liquidity contributed to the reduction of the currency swap market *(Chart 1.39)*. The NBRK's participation in the swap market was insignificant, the main need for tenge and foreign exchange liquidity was met by the market independently.

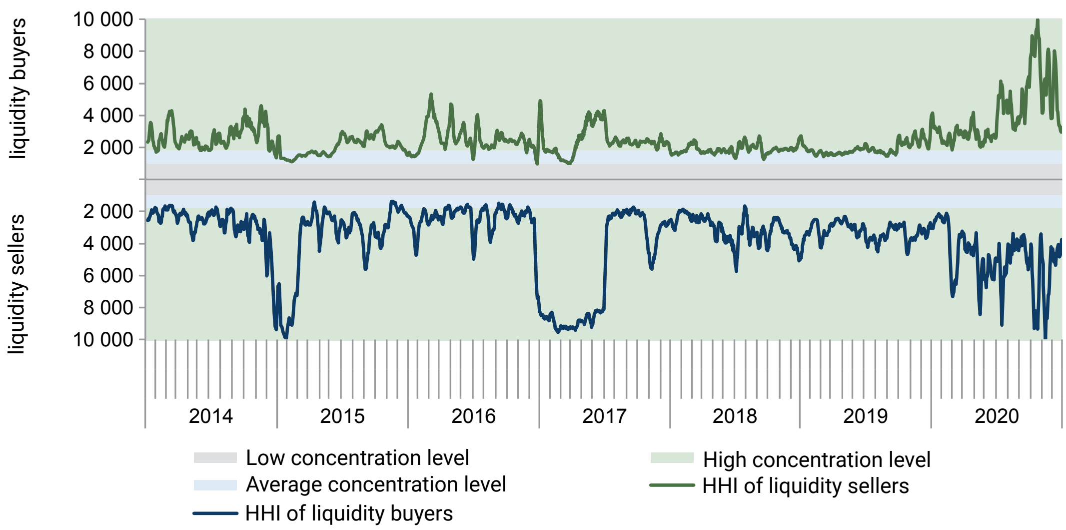
Chart 1.39 ***Decrease in dollarization of deposits in STBs and surplus of tenge liquidity contributed to the reduction of the currency swap market***
Currency swap market volumes



Source: *KSE, NBRK calculations*

The increase in concentration observed both on the side of sellers and on the side of buyers in 2020 was a consequence of this market contraction, not the increased need for liquidity *(Chart 1.40)*.

Chart 1.40 ***The high concentration is conditioned by the low number of currency swap market participants***
Currency swap market concentration



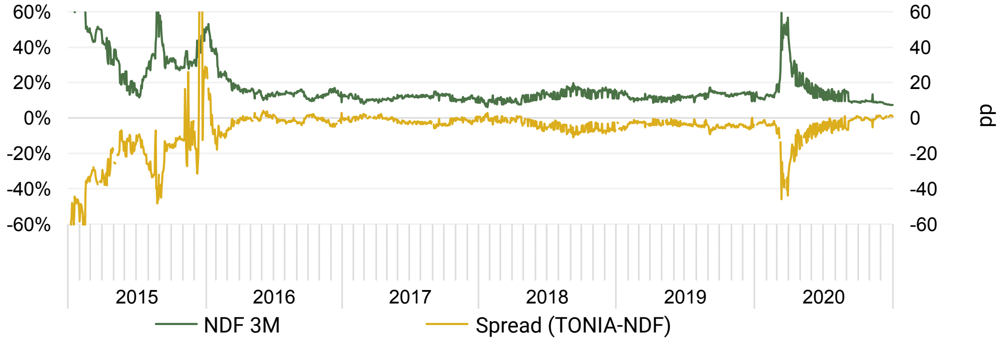
Source: *KSE, NBRK calculations*

Note: *HHI is the Herfindahl-Hirschman index, which is calculated by squaring the market share of each participant competing in a market and then summing the resulting numbers; Concentration is calculated as HHI moving average for 5 consecutive days*

Interest rate policy of the NBRK and money market rates

In March 2020, USD/KZT non-deliverable forward rates rose to 60% in response to increased expectations for further weakening of the tenge. Despite the increase in the base rate in March 2020 to 12%, the spread between the TONIA rate and the NDF rate widened, indicating the possibility of arbitrage against the tenge *(Chart 1.41)*. The covered parity of interest rates ceased to be observed, in the opinion of market participants, the interest rate in tenge no longer reflected the increased risk premium. NDF rates gradually began to decline in April 2020 as the tenge strengthened and in September the spread between the TONIA and NDF rates became close to zero.

Chart 1.41 ***The widening of the spread between the TONIA and NDF rates in March 2020 indicated the possibility of arbitration against the tenge***
Spread between the TONIA and NDF rates for the USD/KZT currency pair



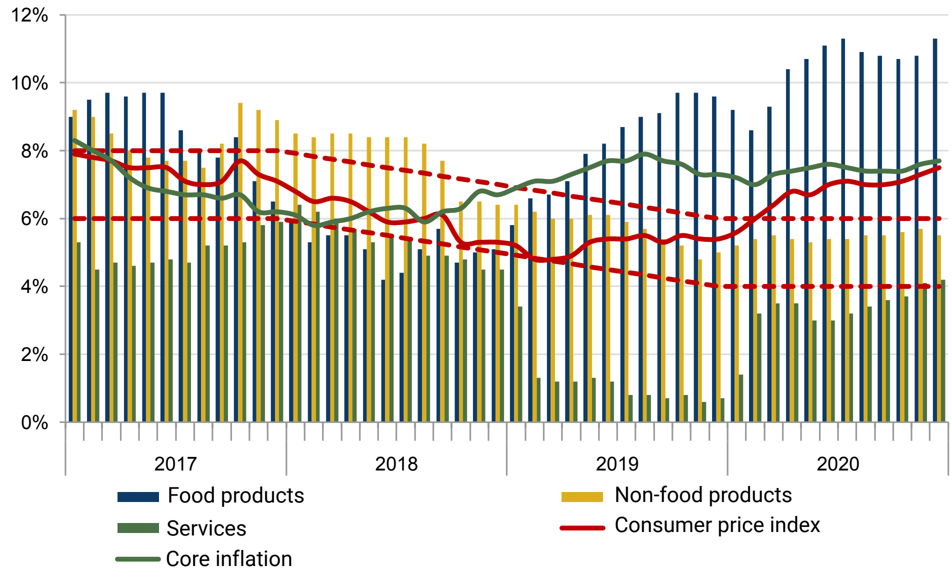
Source: *Bloomberg, KSE*

Inflation stood at 5.4% for 2019, without exceeding the inflation target. However, the weakening of the national currency observed in March 2020 increased inflationary pressures. At the end of 2020, food inflation was 11.3%. In March 2020, annual inflation was at the level of 6.4% and exceeded the target value of 6%; in general, inflation made up 7.5% for 2020 *(Chart 1.42)*.

Non-food inflation was 5.5%. While the growth in prices for clothing, footwear, fuel and lubricants slowed down, prices for medicines, household items and household appliances increased, which was due to the epidemiological situation, as well as the continued demand in conditions of remote work and study.

A significant rise in prices was also observed in the service sector. The acceleration of service inflation to 4.2% is due to the rise in the cost of unregulated paid services. The main contribution was provided by the annual increase in the cost of catering services, hotel services, certain types of personal services and personal care services against the backdrop of a gradual recovery in demand. Core inflation indicators demonstrate the acceleration of inflationary processes. Thus, the annulled core inflation excluding fruits and vegetables, regulated utilities, railway transport, communications, gasoline, diesel fuel and coal, accelerated in December 2020 to 7.2%.

Chart 1.42 ***Inflation went beyond the target corridor in 2020***
Dynamics of inflation components

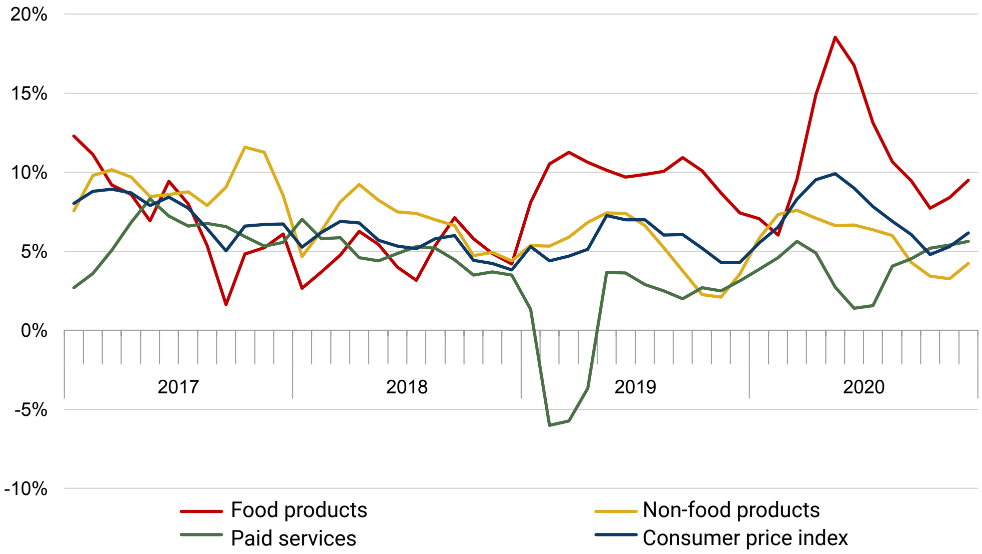


Source: *BNS ASPR RK*

Note: *Core inflation is based on a core index that excludes fruits and vegetables, utilities (regulated), railway transportation, communications, gasoline, diesel and coal; Until 2019, the inflation target was set for the end of the year, therefore, the target corridor in 2018 and 2019, shown on the chart, decreases throughout the year. The inflation target corridor is shown with red dashed lines*

Thus, the rise in food prices in the first half of 2020 contributed to an increase in inflation *(Chart 1.43)*. Food inflation peaked in March and April, with a three-month annualized moving average of seasonally adjusted food inflation of 18.5% in June. In the second half, food inflation began to decline, and by the end of the year, the three-month annualized moving average of the seasonally adjusted food inflation was 9.5%. Headline inflation across the entire consumer basket declined in the second half of the year along with food inflation, while the value of the three-month annualized moving average of seasonally adjusted inflation in the second half of 2020 decreased from 9% to 6.1%.

Chart 1.43 ***The largest contribution to the increase in inflation was made by the growth in prices for food products***
Seasonally-adjusted moving average inflation

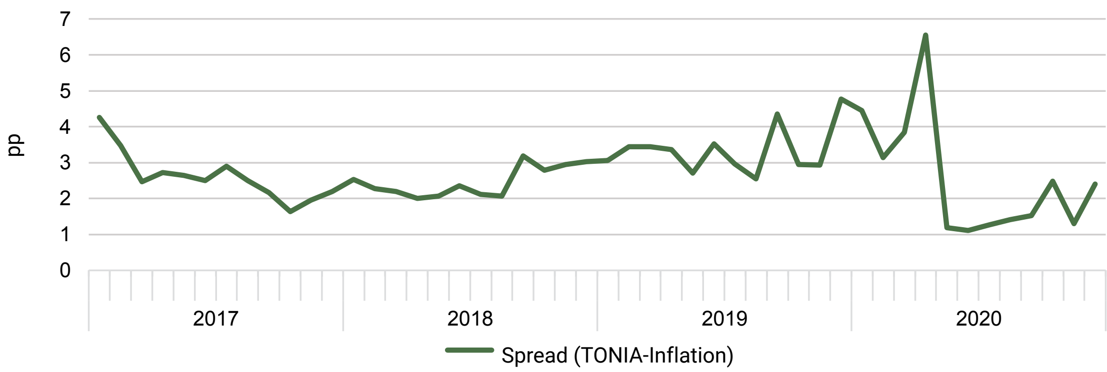


Source: *BNS ASPR RK, NBRK estimate*

Note: *Chart shows 3-month annualized moving averages of seasonally adjusted CPI data by component*

Between 2019 and March 2020, the base rate was set by the NBRK, taking into account the stock at a real rate of 3-3.5% *(Chart 1.44)*. On March 10, 2020, in order to reduce inflationary risks, the NBRK increased the base rate from 9.25% to 12%. As a result, despite the rise in inflation in March, the real rate exceeded 5%. However, in April 2020, in order to maintain economic activity and reduce the damage caused by the coronavirus pandemic, the base rate was lowered to 9.5%. In July 2020, the base rate was again lowered to 9%, which was due to the weakening of pro-inflationary risks and a stronger contraction in economic activity in the first half of 2020. The reduction in the base rate, as well as the gradual acceleration of inflation, reduced the real rate to 1-2%, which remained in this range until the end of the year.

Chart 1.44 ***Decrease in the real interest rate as a result of rising inflation***
Spread between the TONIA rate and the consumer price index

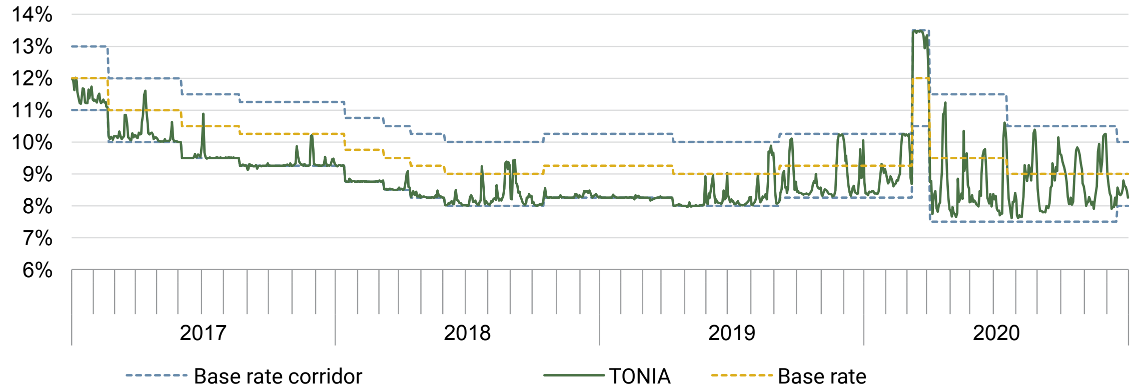


Source: *KSE, BNS ASPR RK*

In 2019, repo rates broke away from the lower border of the corridor and until March 2020 were inside the interest corridor with practically no NBRK participation. In March 2020, despite the increase in the base rate to 12% and the expansion of the corridor to 3%, the rates were at the upper limit, where the NBRK provided liquidity. In April, the NBRK lowered the base rate, while the rate band was expanded to 4%. The repo rates were characterized by significant volatility throughout the year, reflecting the uncertainty associated with the pandemic and the volatility of energy prices *(Chart 1.45)*.

Chart 1.45 ***Uncertainty associated with the pandemic and the volatility of oil prices increased the volatility of money market rates***

Operating rate of the NBRK - TONIA

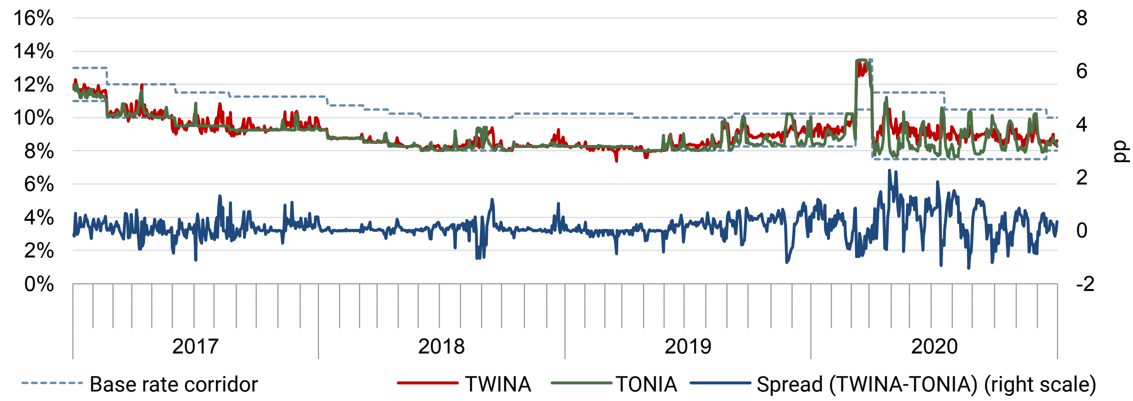


Source: *KSE*

In 2020, the rates on the 7-day repo market, not targeted by the NBRK, were formed within the interest rate band of the base rate and, compared to 1-day repo rates, differed in less volatility, being closer to the base rate. The formation of 7-day repo rates within the corridor indicates an increase in the efficiency of the transmission mechanism of the interest rate channel for short periods; when forming expectations for the cost of short-term liquidity, market participants rely on the base rate *(Chart 1.46)*.

Chart 1.46 ***The transmission of interest rates to the 7-day repo market remains***

Repo market interest rates

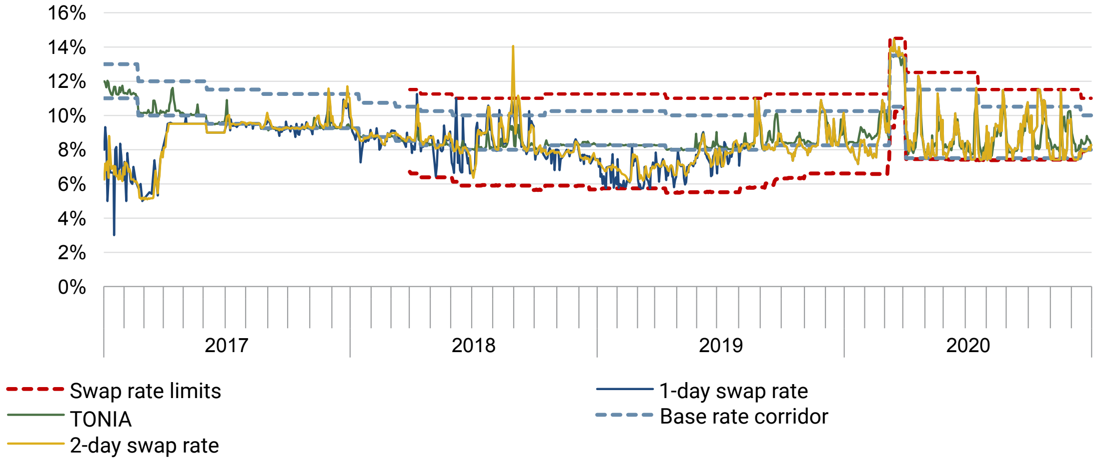


Source: *KSE, NBRK*

The efficiency of the transmission of repo rates to the short-term currency swap market has increased significantly in 2020. This was facilitated by the narrowing of the swap corridor, the lower bound of the rate at which the NBRK withdraws liquidity practically coincided with the lower limit on the repo market. In March 2020, the spread between the upper bounds of swaps and repo was narrowed from 2% to 1% *(Chart 1.47)*. In 2020, swap rates often exceeded the upper bound of repo rates and reached the swap upper bound, which, in comparison, was rare in 2019. The largest growth in rates on the swap market, as well as on the repo market, was observed during the periods of the greatest pressure on the tenge - in March and April 2020. The increase in swap rates indicates an increase in the cost of hedging, and the reluctance of market participants to provide tenge liquidity against currency collateral.

Chart 1.47 **During periods of high volatility of the tenge exchange rate in 2020, the cost of hedging currency risks increased**

Interest rates in the currency swap market



Source: *KSE, NBRK*

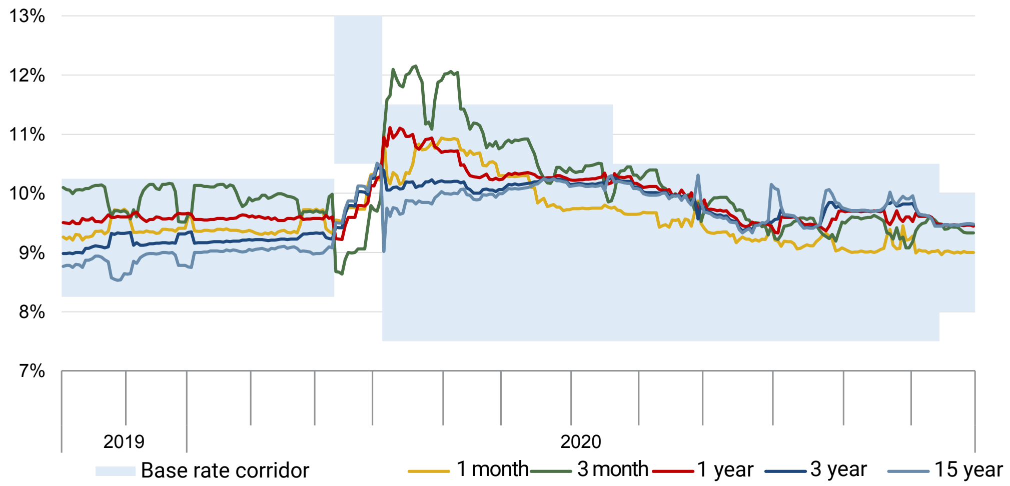
Note: *The interest rate corridor for currency swap rates was introduced by the NBRK in April 2018. The upper bound of the corridor is defined as the base rate plus the spread. The lower bound depends on the base rate and the effective federal funds rate*

The GS yield curve is sensitive to decisions made at the base rate, however, the rates correction in case of significant shifts occurs with a slight time gap *(Chart 1.48).* In the analyzed period, the GS yields were predominantly within the interest rate corridor, which indicates the presence of interest rates transmission towards the GS rates. However, low liquidity and weak interest on the part of voluntary participants in GS for terms of more than three years limits the effectiveness of the interest rate channel and does not allow the yield curve to function as a benchmark for the value of tenge funds in the medium and long term.

The NBRK notes market is relatively liquid, rates on notes reflect the demand of voluntary market participants and their expectations for the value of risk-free tenge assets. Until 2020, the demand for GS issued by the MF RK from voluntary investors was limited, and most of the GS of the MF RK was concentrated among a narrow circle of captive investors. This had a negative effect on the function of the GS market for transmission of interest rates. However, as a result of the resumption of the issue of short-term GS in 2020, market participants again began to participate in the GS market of the MF RK. In addition, in 2H 2020, the shape of the GS yield curve became ascending, the yields on the longer-term GS began to exceed the yields on the short-term GS, reflecting the liquidity premium for longer terms.

Chart 1.48 **Average and long-term GS rates do not reflect the demand of market participants**

GS yield curve

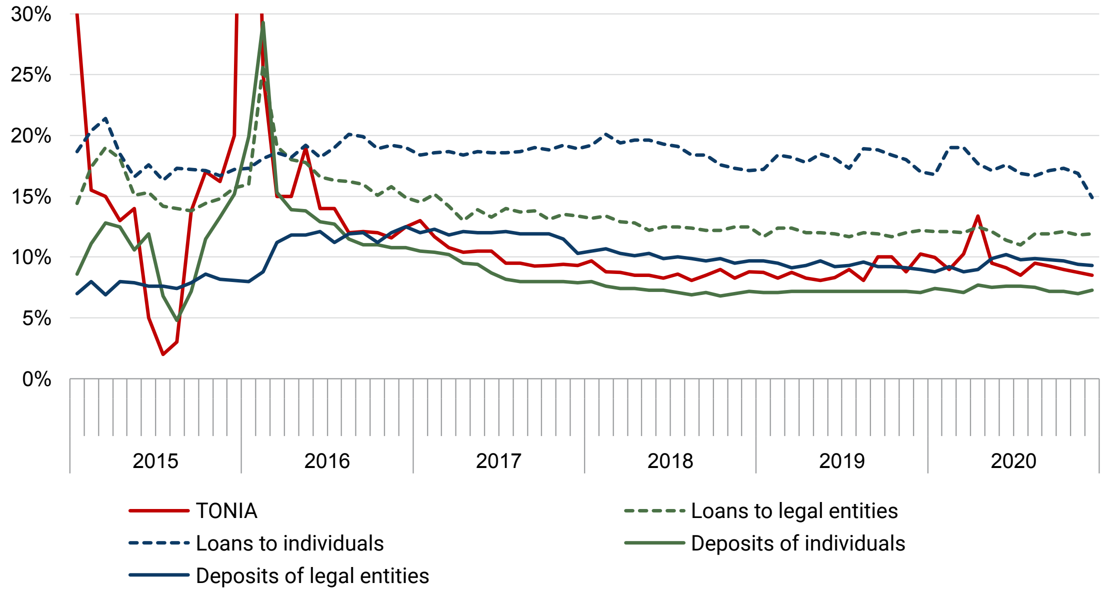


Source: *KSE*

Decisions on the base rate are transmitted to the deposit market through the method for determining the maximum rate on deposits of individuals[1]. Thus, the maximum rates on non-urgent[2] and short-term deposits (3 and 6 months) of individuals are set depending on the level of the base rate. As a result, Short-term rates on retail deposits demonstrate transmission of money market rates. Short-term rates on corporate deposits also follow a similar trajectory with the rates on the money market *(Chart 1.49)*.

The banks' interest rate policy is aimed at minimizing risks, which hinders the transmission of the base rate towards loan rates. Corporate lending rates show a correlation with money market rates, however corporate lending is limited by the high credit risks of borrowers and the low ability of banks to absorb them. Due to the high risks, rates in consumer lending are much higher than the cost of funding, and therefore are insensitive to changes in the base rate.

Chart 1.49 ***Rates in consumer lending are much higher than the cost of funding, and therefore are insensitive to changes in the base rate***
Loan and deposit rates



Source: *NBRK*

1.5 Fiscal Policy

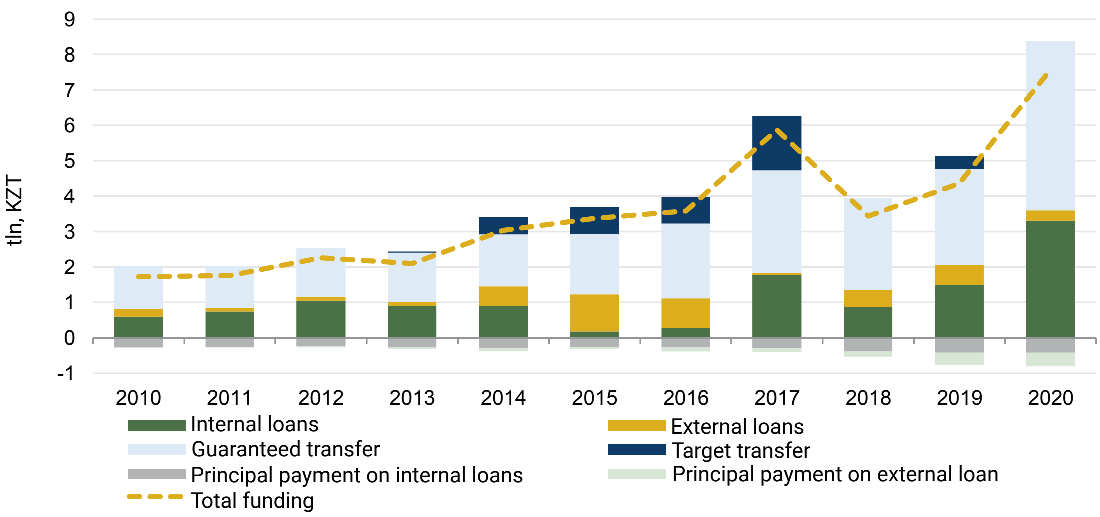
In the context of widespread quarantine restrictions on economic activity due to the spread of coronavirus infection, the fiscal channel was maximally used to support the economy. Thus, in 2020, the republican budget deficit amounted to 2.18 trillion tenge (3.1% of GDP), demonstrating an increase of 68.6% compared to 2019 (-1.9% of GDP). The non-oil deficit of the republican budget at the end of 2020 amounted to 7.5 trillion tenge (10.7% to GDP), which is 36.5% more compared to the corresponding period of 2019 (7.9% to GDP). Due to the continuing dynamics of the dominance of government expenditures financing through transfers from the NF RK, the risks of growing macrofiscal imbalances continue to increase. In addition, a fairly high degree of the fiscal policy procyclicality, caused by the dynamics of oil prices, remains. This trend requires the introduction of countercyclical fiscal rules in the medium term in order to ensure the NF RK assets safety, improve fiscal discipline and bring the sovereign fiscal balance to a sustainable level.

[1] Methodology for determining and establishing the size of the maximum interest rate on newly attracted deposits of individuals (with amendments and additions as of February 26, 2021)
[2] Non-urgent deposits - deposits where the penalty for early withdrawal of which is lower than the penalty established by the Methodology

Expanding Budget Deficits

As a result of the urgent need for fiscal support under the state of emergency and quarantine measures introduced to combat the spread of coronavirus infection in March 2020, the fiscal expenditures of the state budget increased significantly *(Chart 1.50)*. Thus, the deficit of the consolidated budget, which amounted to -7.9% of GDP in 2019, increased to -9% by the end of 2020. At the same time, the official and non-oil state budget deficits amounted to -4% and -11.6% of GDP, respectively.

Chart 1.50 ***The share of transfers from the NF RK in the budget deficit structure is growing***



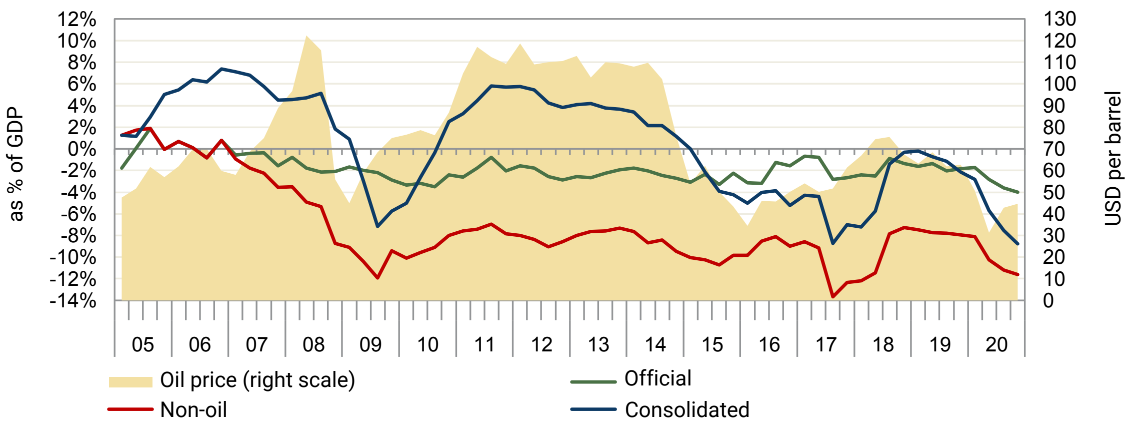
Source: *MF RK*

At the end of 2020, the state budget deficit (taking into account the operations of local executive bodies) amounted to 2.8 trillion tenge (4% to GDP), having increased by 118% compared to 2019 (-1.9% to GDP). The non-oil deficit of the state budget amounted to 8.16 trillion tenge (11.6% of GDP), having increased by 48.1% from 2019.

Also, in 2020, the republican budget deficit amounted to 2.2 trillion tenge (3.1% of GDP), having increased by 68.6% compared to 2019 (1.9% of GDP). The non-oil deficit of the republican budget in 2020 (budget deficit excluding transfers from the National Fund and export customs duties on crude oil) amounted to 7.5 trillion tenge (10.7% to GDP), which is 36.5% more compared to the corresponding period of 2019 (7.9% to GDP).

The sharp increase in the deficit in 2020 was the result of both a decline in government revenues and an increase in government spending. The decline in revenues was accompanied mainly by the fall in oil prices, as the main export product. Thus, a fairly high degree of procyclicality of the consolidated budget remains in relation to the dynamics of oil prices *(Chart 1.51)*.

Chart 1.51 ***The high procyclicality of the consolidated budget remains***

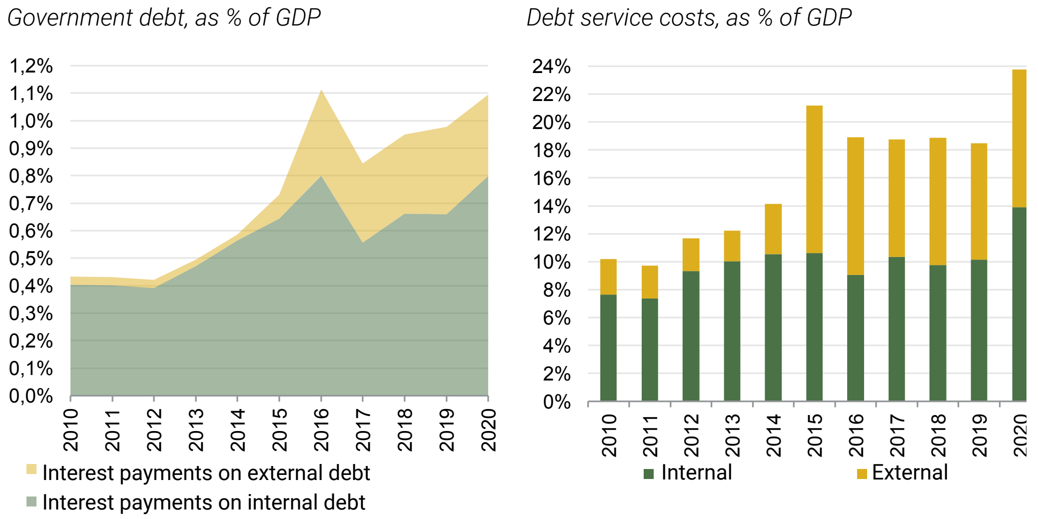


Source: *MF RK, IMF, NBRK calculations*

Note: *The consolidated budget is calculated according to the methodology of the MF RK*

At the same time, the expansion of the budget deficit is primarily due to the outstripping growth in the rate of expenditures over revenues. Financing the expenditures in excess of budget revenues occurs through the allocation of transfers, internal and external loans. At the same time, raising public debt is the main channel for financing the official budget deficit. Thus, over the past 10 years, the growth in debt service costs exceeded the economic growth rates *(Chart 1.52)*. Since 2010, payments of remuneration on domestic and foreign loans have grown from 94 billion tenge (0.43% of GDP) to 767.5 billion tenge (1.1% of GDP). The rapid increase in debt service costs since 2015 is largely conditioned by the weakening of the national currency and an increase in external debt service costs.

Chart 1.52 ***The growth in debt service costs exceeded the economic growth rates***



Source: *MF RK*

In general, for 2020, real GDP growth for the first time in the last two decades showed negative growth and amounted to -2.6% y/y. Increased fiscal injections by the state (a package of anti-crisis measures in the amount of 8.5% of GDP or 5.9 trillion tenge) led to the creation of favorable conditions for fiscal dominance, simultaneously contributing to an increase in inflationary pressures, as a result of which inflation peaked since 2017 at 7.5% y/y.

Under high volatility in commodity prices, macroeconomic stabilization comes to the fore for resource-rich developing countries. Ineffective management of commodity revenues can be a key problem behind the excessive volatility of economic cycles in such economies. The recent sharp drop in commodity prices, together with the COVID-19 outbreak, is likely to slow down to a greater extent the economic performance of commodity exporters in the long term. In the case of Kazakhstan, fluctuations in the business cycle over the past 20 years have increasingly been linked to the oil price, which accounted for about 65% of total exports and 30% of total government revenue in 2019 and 57% of total exports and 14.8% of total government revenues in 2020.

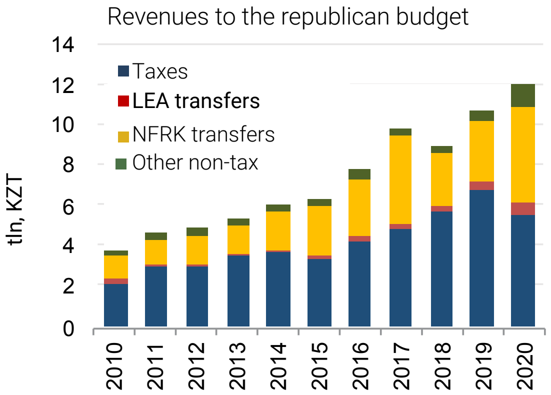
Budgetary receipts

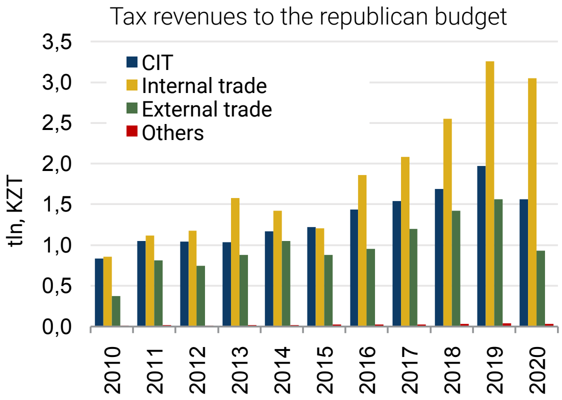
In 2020, against the background of the economic downturn, there was a sharp decrease in the revenue of the republican budget compared to the values planned, excluding the transfer of the NF RK, in the amount of 1.34 trillion tenge (1.9% of GDP). As part of anti-crisis measures, the transfer from the NF RK was increased by 76.7% from 2.7 trillion tenge up to 4.77 trillion tenge (6.8% of GDP). At the same time, the guaranteed transfer amounted to 2.7 trillion tenge in 2019, whereas the target transfer amounted to 370 billion tenge. Also, as part of the fiscal stimulus expansion, the republican budget deficit amounted to 2.16 trillion tenge (3.1% of GDP). The revenues of the republican budget in 2020 increased by 12.4% compared to 2019 and amounted to 12 trillion tenge. The main reason for the growth in income is an increase in the receipts of transfers from the NF RK by 55.4% compared to 2019 (the share in budget revenues was 40%) and non-tax receipts by 3.5 times, the share of which was 8.2%. The growth of non-tax revenues was due to a significant increase in dividends from NWF Samruk-Kazyna JSC on state blocks of shares owned by the state, as well as the receipt of a lump-sum payments from KPO B.V. regarding compensation of the contracting companies of the Karachaganak project for the settlement of the arbitration dispute.

Given a decrease in economic activity in 2020, tax revenues to the republican budget decreased by 18.4% and amounted to 5.6 trillion tenge *(Chart 1.53)*. The decrease in tax revenues occurred as a result of measures by the Government of the Republic of Kazakhstan to support business and the income of the population, within the framework of which small and medium-sized businesses in the most affected sectors of the economy were exempted from taxes and other mandatory payments from the wage fund, as well as the transfer of proceeds from the corporate income tax from small and medium-sized businesses to local budgets. Thus, income tax revenues decreased by 20.9% from 2019 and amounted to 1.56 trillion tenge. Domestic trade taxes declined by 6.4% and amounted to 3 trillion tenge.

Foreign trade taxes, the main share of which are export customs duties on crude oil (74% in 2019 and 63% in 2020), decreased by 40.6% and amounted to 928.5 billion tenge.

Chart 1.53 ***Tax revenues to the republican budget decreased***





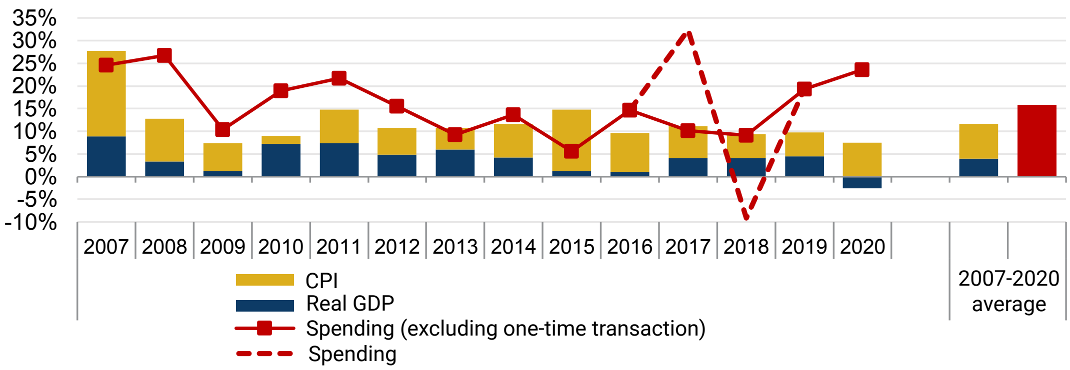
Source: *MF RK*

Budget expenditures

In 2020, the expenditures of the republican budget amounted to 14.2 trillion tenge (20.3% of GDP), having increased by 18.4% (17.3% of GDP) compared to 2019. State budget expenditures (taking into account LEB operations) amounted to 17.4 trillion tenge (24.7% of GDP), having increased by 22.9% (20.4% of GDP) compared to 2019.

A separate point in the analysis of the consequences of the procyclical fiscal component is the growth of government spending, which outstrips the growth rate of real GDP and inflation during periods of rising oil prices *(Chart 1.54)*. First of all, it indicates the inefficient allocation of funds, since the expansion of the fiscal stimulus accounts for less productivity growth. These dynamics also contribute to increasing pro-inflationary pressures through a disproportionate rise in aggregate demand. Therefore, fiscal policy should be coordinated with the medium-term goals of monetary policy, which does not carry conflicts in the effective implementation of their main guidelines. In the medium term, the growth rate of government spending should be limited by growth in real GDP adjusted to the inflation target.

Chart 1.54 ***Outpacing growth in government spending over inflation and real GDP growth rates during the periods of high oil prices***



Source: *MF RK*

Note: *Accounting for a one-time support transaction of STBs for 2 trillion tenge in 2017*

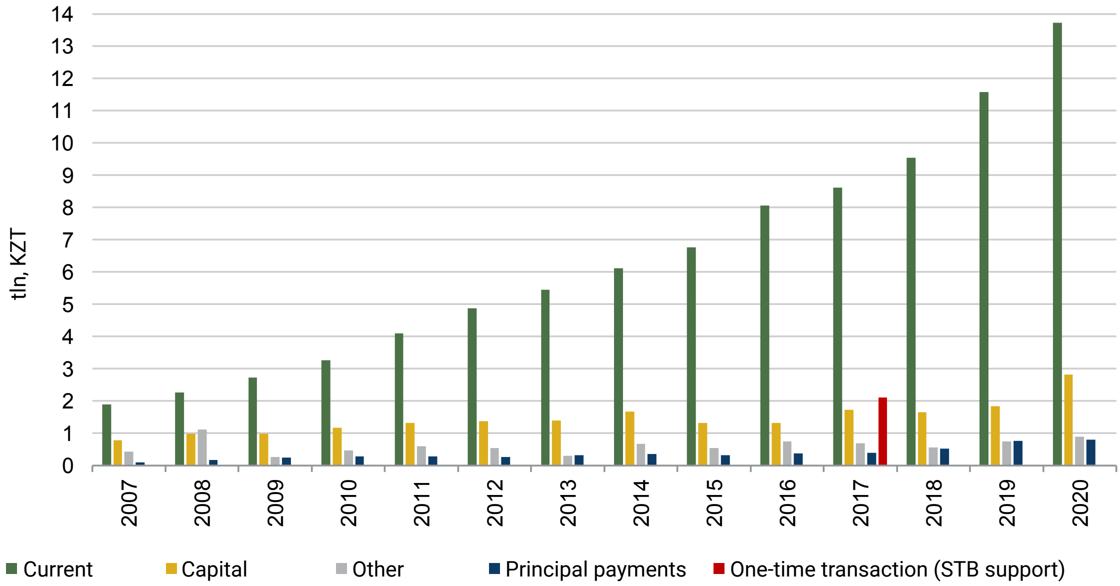
According to the latest modification of the Concept of the NF RK[3], when forming the republican budget for 2023 and subsequent years to ensure the saving function of the NF and ensure fiscal discipline. The determination of the guaranteed transfer amount will be based on the countercyclical budget rule. The rule will set a direct cap on the rate of growth of government spending at the level of the target long-term economic growth, increased in relation to the long-term target of inflation. In addition, the guaranteed transfer will be determined in an amount not exceeding the amount of receipts to the NF from the oil sector at the cut-off price determined by the Law of the Republic of Kazakhstan on a guaranteed transfer for the corresponding planning period. At the same time, the volume of

[3] Decree of the President of the Republic of Kazakhstan dated December 22, 2020 No. 474 "On amendments and additions to the Decree of the President of the Republic of Kazakhstan dated December 8, 2016 No. 385» On the Concept for the formation and use of the National Fund of the Republic of Kazakhstan"

government spending will be limited by non-oil budget revenues and guaranteed transfers predicted at the cut-off price, targeted transfers, as well as a deficit planned taking into account the restrictions on the non-oil deficit.

The government expenditures in the economic classification show a stable growth of current expenditures, as well as their disproportionate dominance in the structure of total government expenditures *(Chart 1.55)*. The share of expenditures on social benefits (75.2% of total expenditures or 19.4% of GDP in 2020) has been at a high level for a long time, which limits the possibilities for increasing capital expenditures (15.5% of total expenditures at the end of 2020). The current expenditures do not bring long-term returns, are not investment products, but only support current consumption, thereby not creating preconditions for long-term economic growth and capital accumulation.

Chart 1.55 ***Crowding out current government spending over capital spending***



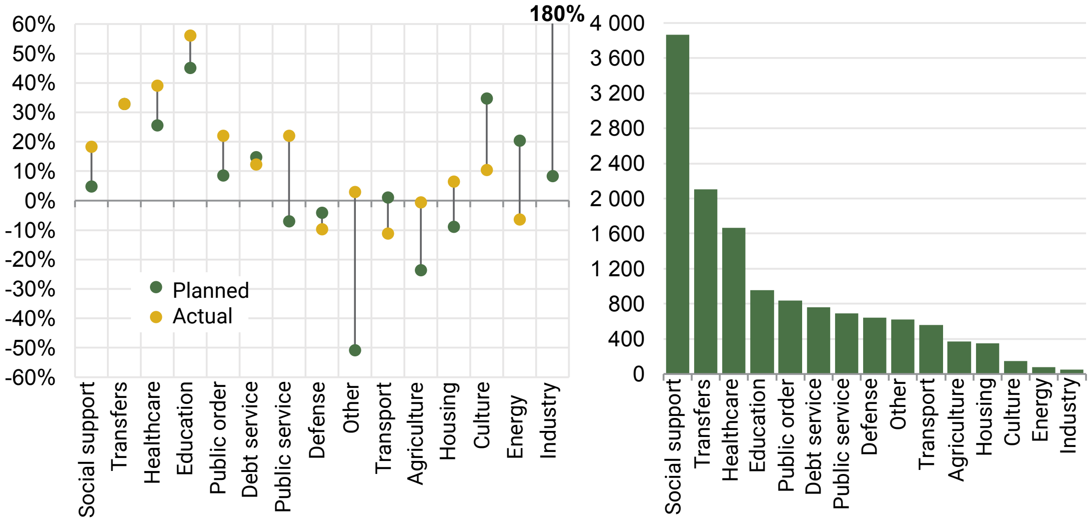
Source: *MF RK*

The main contribution to the growth of expenditures of the republican budget was made by expenditures on social assistance and social security (share - 28.3%), the growth of which amounted to 18.3% *(Chart 1.56)*. The increase in health care costs was 39% (share - 12.2%), which is due to the implementation of anti-epidemiological measures to prevent the spread of coronavirus and an increase in wages for medical workers. Moreover, there was an increase in spending on education by 56.2% (share - 7%) against the background of an increase in teachers' salaries, official transfers - by 32.8% (share - 15.4%), debt service - by 12.4 % (share - 5.6%).

Chart 1.56 ***Expenditures of the Republican budget***

Planned and actual growth of budget expenditures for 2020

Actual expenditures of the budget, billion tenge

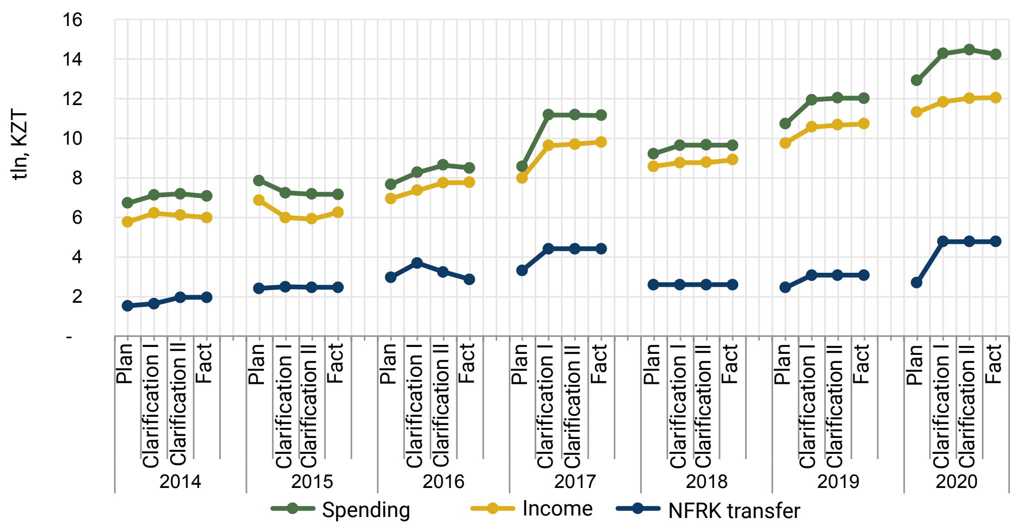


Source: *MF RK*

The state anti-crisis measures were mainly aimed at supporting SMEs and preventing the shutdown of enterprises, as well as curbing unemployment and supporting socially vulnerable segments of the population. This was accompanied by an increase in budget spending on social assistance and welfare, public order, education and health, as well as a decrease in tax revenues, including corporate income tax and taxes on international trade. In general, a significant fiscal stimulus of 5.9 trillion tenge (8.5% to GDP) was allocated to support the economy, which made it possible to restrain the influence of negative effects on the economy.

In the face of a sharp deterioration in the economic environment and negative economic shocks, the short-term fiscal stimuli can support productive economic activity. However, in the medium term, fiscal policy is not sufficiently disciplined, resulting in frequent budget revisions. In the current fiscal policy, there is no clear division between long-term strategy and short-term fiscal impulses to the economy. Frequent and significant budget adjustments make fiscal policy less transparent and predictable *(Chart 1.57).*

Chart 1.57 ***Adjustments to the republican budget***



Source: *MF RK*

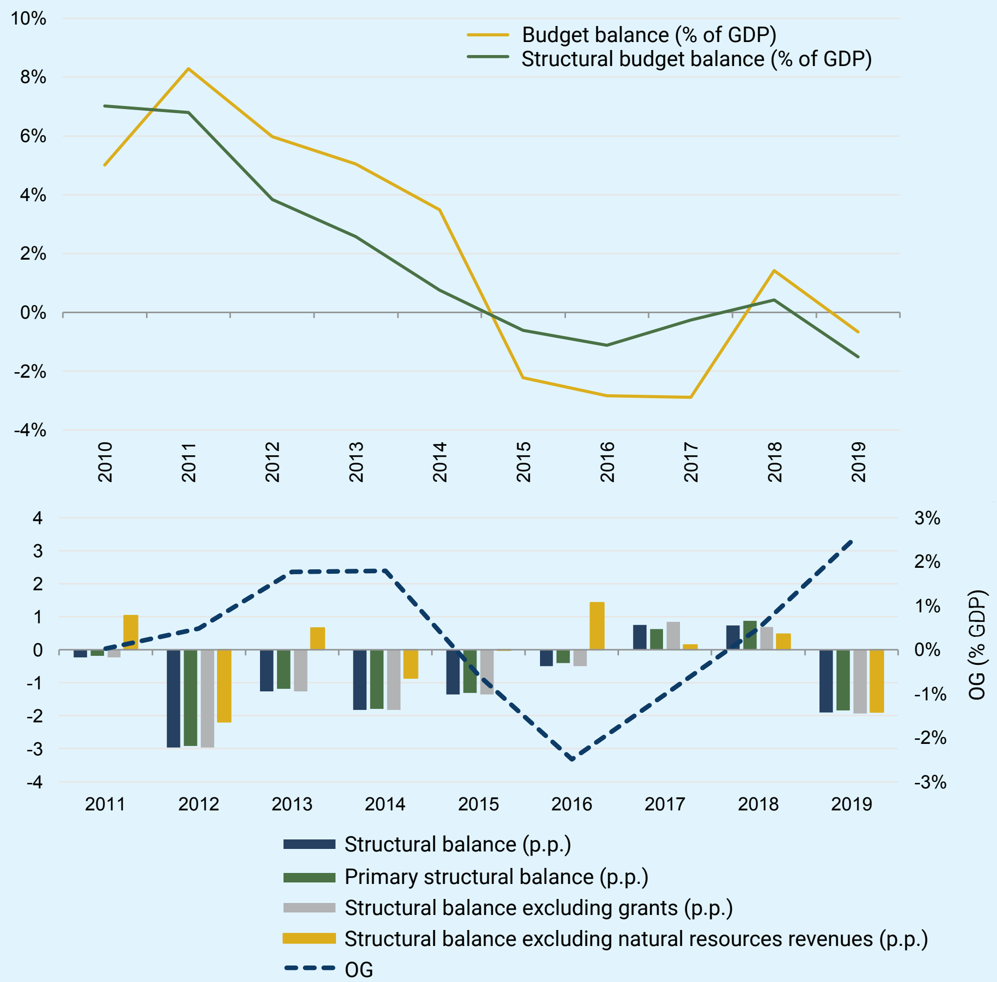
The process of planning and forecasting the expenditure side of the budget is imperfect, which, in the absence of automatic stabilizers, leads to the need for frequent revisions and adjustments of the budget. In particular, starting in 2016, budget expenditures were systematically revised in favour of increasing. At the same time, the lowest budget adjustment was achieved during periods of stable oil prices, which is reflected in a minor revision of the republican budget in 2018.

Box 2. Structural balance of the Republic of Kazakhstan according to the methodology of the Eurasian Economic Commission

The structural balance is a surplus (deficit) of the state budget, adjusted for the influence of a number of factors: discretionary one-time transactions, economic cycle and other exogenous processes (dynamics of prices for commodities and financial assets, other nominal shocks). The structural balance indicator allows to analyze changes and directions of fiscal policy. If fiscal policy contributes to the strengthening of the current phase of the economic cycle (overheating or recession), then it is characterized as procyclical. If the fiscal policy makes it possible to smooth out fluctuations in output, then it is considered countercyclical.

The procedure for assessing the structural balance of the budget involves the implementation of several steps. At the first stage, the actual revenues and expenditures of the budget are adjusted for significant non-periodic fiscal transactions. At the second stage, an adjustment for the business cycle takes place. The adjusted budget is the value of the budget surplus (deficit) that would be observed if the economy output was consistent with its trend level and there were no exogenous shocks. At the third stage, the budget balance can be adjusted for the price parameters of various types of assets and primary export products.

Chart 1.58 ***Structural balance according to the EEC methodology***



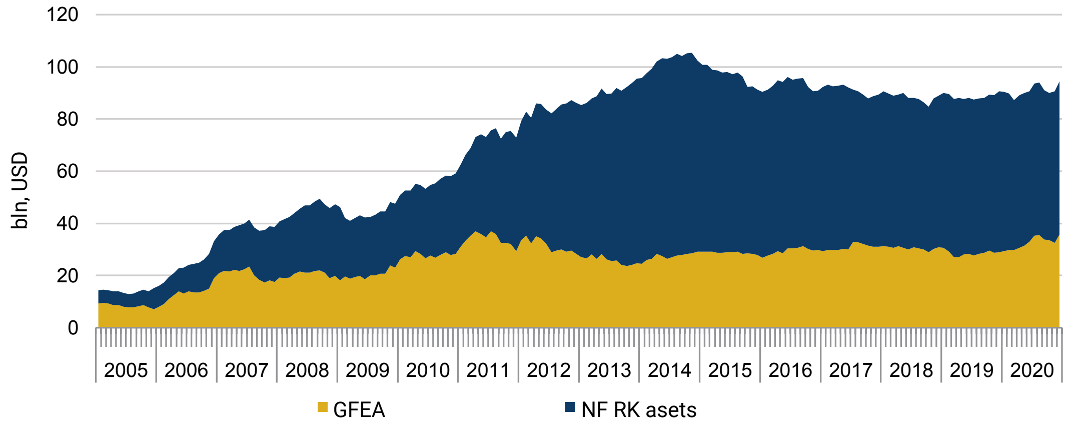
Source: *IMF, EEC*

Note: *Assessment of the structural balance of the Republic of Kazakhstan, calculated by the EEC*

The assessment of the dynamics of changes in the structural balance of the Republic of Kazakhstan shows that during the periods of economic growth (2012-2014), the direction of the country's budget policy was procyclical. At the same time, during the periods of economic slowdown in 2015-2016, the fiscal policy was acyclic, and since 2017 it is again characterized as procyclical *(Chart 1.58)*.

Taking into account the systematic procyclical direction of the fiscal policy and the accompanying institutional constraints within the framework of the change in its direction, the formed fiscal space contributes to the maintenance of the sovereign rating of Kazakhstan at the investment level *(Chart 1.59)*.

Chart 1.59 ***International reserves maintain investment rating***



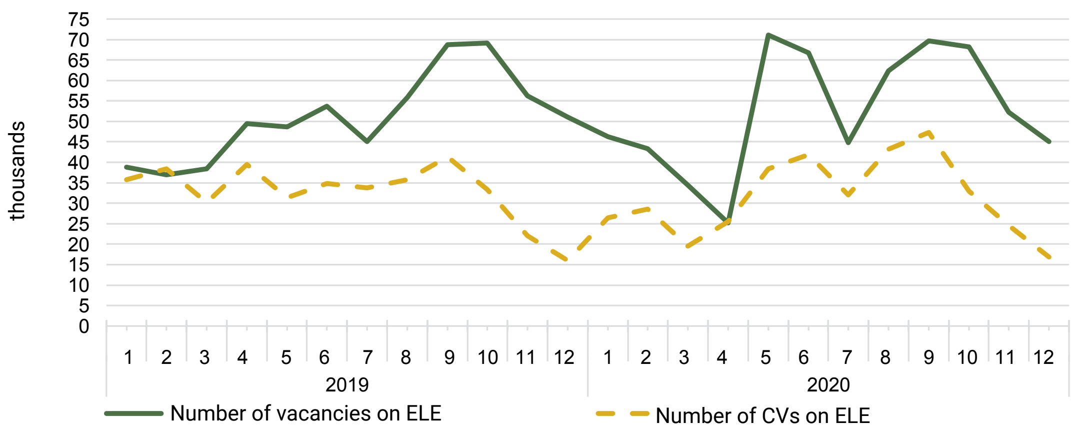
Source: *NBRK*

At the same time, the active attraction of the accumulated funds of the oil sector and the absence of the countercyclical fiscal rule, which could effectively isolate the dynamic growth of government spending, creates the prerequisites for medium-term macroeconomic risks.

1.6 Labor market dynamics

The spread of the pandemic and the lockdown introduction put pressure on the labor market. Under the influence of quarantine restrictions, the number of "temporarily unemployed" workers has increased. Far from potentially slowing down the prospects for economic growth, such measures do not allow to fully use the potential of labor resources, reducing their productivity. They also lead to a decrease in the population's capability to pay, which negatively affects the ability of the population to service debt obligations and may entail significant risks to the financial stability.

Chart 1.60 ***In April 2020, the demand for skilled labor exceeded supply***
Labor market dynamics, number of CVs and vacancies on the ELE



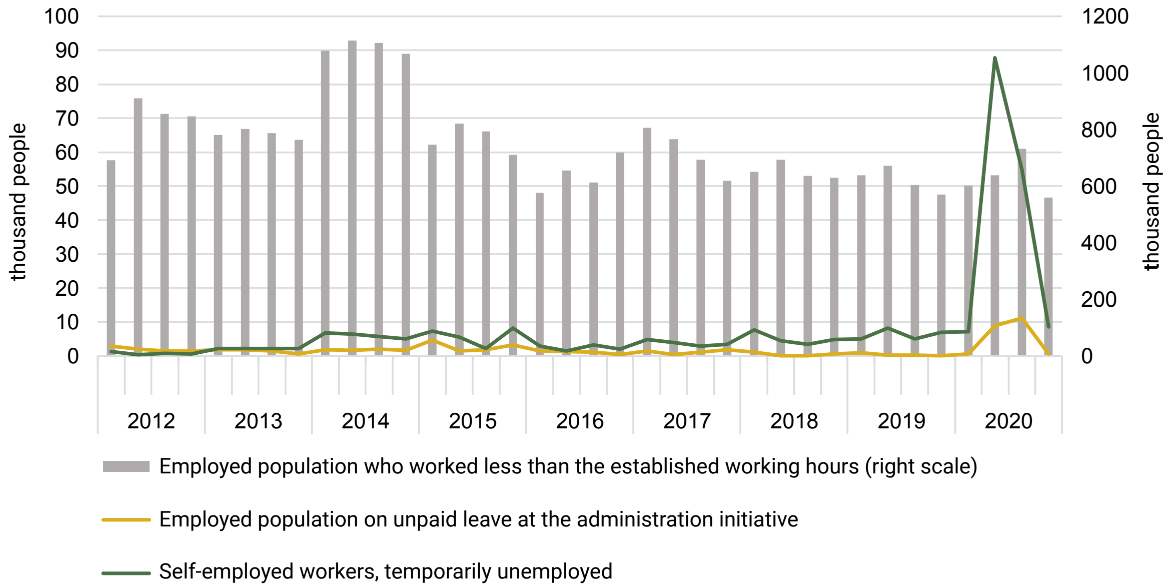
Source: *Electronic Labor Exchange*

Note: *ELE stands for the electronic labor exchange. The number of vacancies and CVs presented for qualified labor*

In the period of the first lockdown (March-April 2020), the number of CVs on the electronic labor exchange exceeded the number of vacancies, which was facilitated by both the decline in demand from enterprises, which began in Q4 2019, and the rapid increase in supply from sides of the population *(Chart 1.60)*. From March to April 2020, the number of CVs on the electronic labor exchange grew by 30%, which may reflect the increased need for a stable income due to the restriction of activities in areas prone to high physical contact and job cuts. In Q4 2020, the number of CVs increased compared to 2019, while the number of vacancies posted decreased. In general, in 2020, 2.8% more vacancies were posted on the electronic labor exchange than in 2019, which demonstrates an increase in the demand for skilled labor in the country. However, despite the growth in the number of job seekers during the lockdown, the number of CVs posted on the electronic labor exchange decreased by 3.8% compared to the previous year.

Chart 1.61 ***The spread of the pandemic and the lockdown introduction led to an increase in the number of "temporarily unemployed" workers***

Indirect signs of unemployment

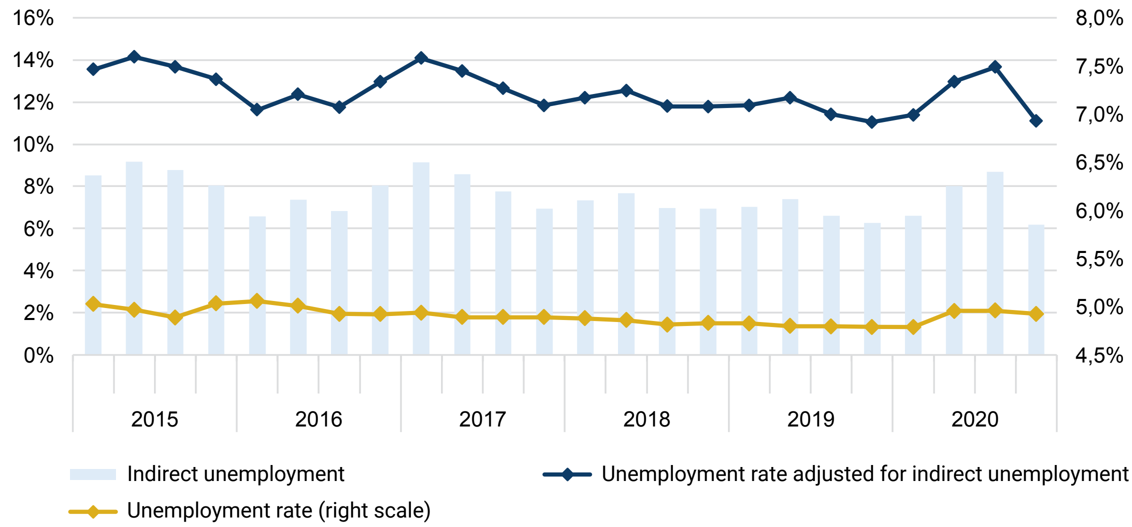


Source: *BNS ASPR RK*

Note: "The *indirect unemployed" include formally employed people whose labor productivity is not fully applied or not applied*

In Q2 2020, the unemployment rate rose to 5%, while the unemployment rate among the population aged 15-28 rose from 3.8% to 4%. With the introduction of quarantine restrictions in Q2 2020, the number of people on unpaid leave at the initiative of the administration increased by more than 29 times compared to the same period in 2019 *(Chart 1.61)*. In Q3 2020 compared to Q3 2019, the number of people who worked less than the established working hours also increased by 20.9%. Indirect signs of unemployment demonstrate the impact of quarantine on both the activities of enterprises and the labor market. The administrative leave of workers and the reduction in working hours are indicative of the difficulties faced by enterprises and are also the reason for the decline in earnings from employment. The sharp increase in the number of temporarily unemployed and self-employed workers illustrates the difficulties faced by entrepreneurs in connection with the quarantine. In addition, the sharp increase in this category of workers is explained by the increase in the number of contributions of the Single Aggregate Payment (hereinafter - the SAP) in order to receive benefits in the amount of 42.5 thousand tenge in connection with the loss of a source of income due to quarantine measures. So, in Q2 2020 compared to Q2 2019, the number of such employees increased more than 10 times. By the end of Q3, the situation had stabilized somewhat, but the indicator was still many times higher than the average value for the last 8 years. In Q4, the number of workers who worked less than the established working hours decreased and reached its pre-pandemic levels. The number of people on unpaid leave at the initiative of the administration decreased almost 22 times compared to Q3 2020, but the figure continued to exceed last year's value almost 5 times. The number of temporarily unemployed self-employed decreased 6.3 times, but still exceeded the value registered in 2019.

Chart 1.62 ***The lockdown put pressure on the labor market***
Unemployment rate in the RK



Source: *NBRK's calculation based on data from BNS ASPR RK*
Note: "The *indirect unemployed" include formally employed people whose labor productivity is not fully applied or not applied*

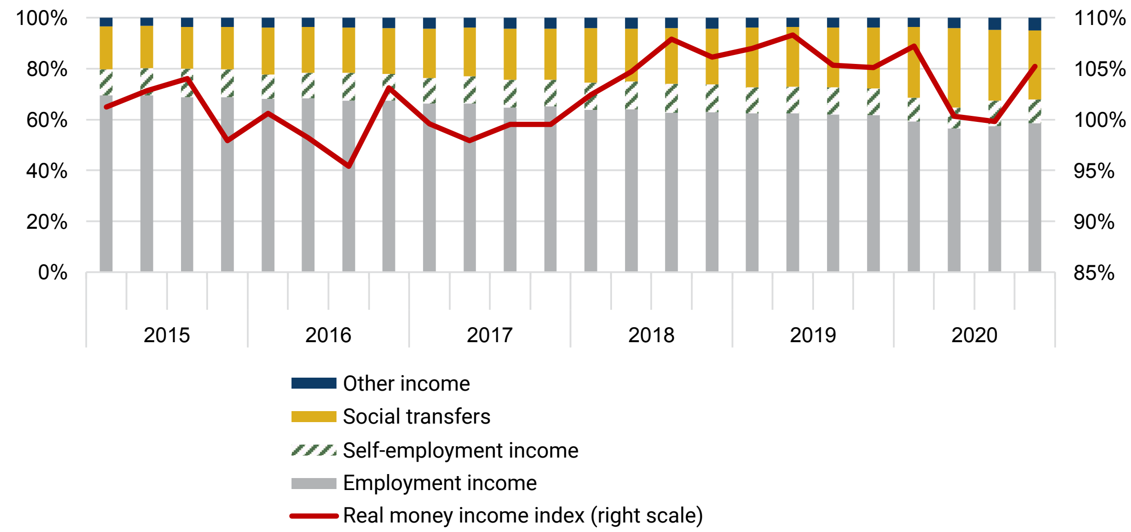
Some relaxation of quarantine restrictions and stabilization of the situation weakened the manifestation of hidden unemployment in the country *(Chart 1.62)*. At the same time, the transfer of employees to part-time work and the administrative granting of unpaid leave are the manifestation of indirect unemployment. Such measures do not allow the full use of the labor force potential, reduce productivity and can potentially lead to a slowdown in economic growth. In addition, labor activity is the main source of income for households, and a significant reduction in such income will lead to a decrease in the population's capability to pay, which will negatively affect the ability of the population to service debt obligations and may entail significant risks to the financial stability.

1.7 Households

Despite the rise in nominal income, households faced a decline in income from work in the first half of 2020. In addition, the share of social transfers in the structure of household income increased, and the ratio of debt service costs to disposable income continued to grow. These dynamics indicate the potential risks to financial stability.

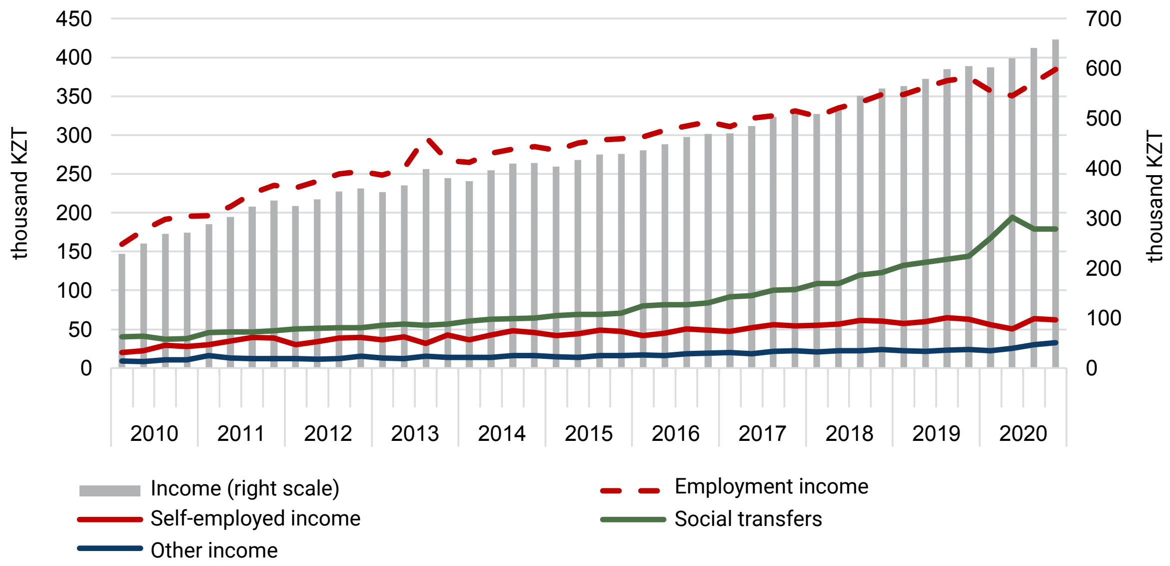
Against the background of the pandemic spread, in the first half of 2020, a slowdown in real income growth was observed *(Chart 1.63)*. Having decreased in Q2 to 100.3, the real income index of the population in Q3 2020 fell below 100 for the first time since 2018, which indicates a decrease in the real income of the population. The restrictions on the activities of enterprises due to the epidemiological situation led to a decrease in income from employment by 3.1% and 0.6% in Q2 and Q3 2020, respectively. As the epidemiological situation improved in Q4, earnings from employment were heading for recovery. At the same time, the quarantine restrictions introduced in 2020 especially affected the self-employed. Thus, the hard lockdown introduction in Q2 2020 led to a decrease in income from self-employment by 16.5% compared to the same period in 2019 *(Chart 1.64)*. In the second half of 2020, household income from self-employment continued to decline (a decline of -1.6%, and -1.8%). The share of social transfers continued to grow and on average amounted to 28.5% of all income in 2020. Moreover, there has been a rapid increase in social transfers. Thus, in 2020, the average quarterly growth of social transfers was 30% (26.8% in Q1, 42.9% in Q2, 27.3% in Q3, 24.3% in Q4 in relation to the same periods of 2019). Among social transfers in 2020, the largest increase was observed in the average amount of benefits per household, while the average amount of TSA and housing assistance per household decreased. These dynamics can be explained by the beginning of benefits payment in the amount of 42.5 thousand tenge as part of the assistance provided to citizens, who lost their incomes due to the pandemic.

Chart 1.63. ***There is an increase in the share of social transfers in the structure of household income***



Source: *BNS ASPR RK*

Chart 1.64. ***Despite the growth in nominal income, households faced a decrease in income from work in the first half of 2020***
Household income in monetary terms



Source: *BNS ASPR RK*

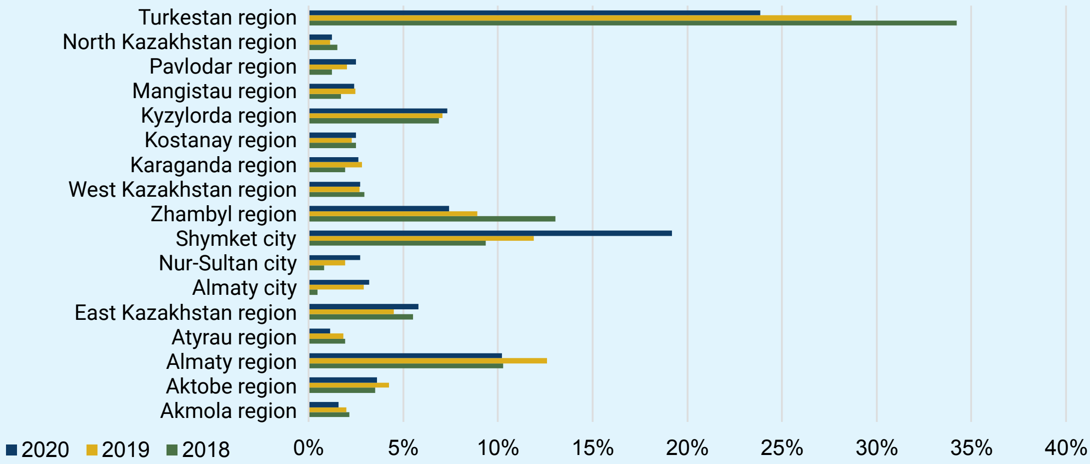
As part of supporting citizens who have lost income as a result of strengthened quarantine measures, the Ministry of Labor and Social Protection decided to appoint a lump sum payment of 42.5 thousand tenge. This payment could be claimed by both persons who lost their jobs and unofficially self-employed, who paid a single aggregate payment (SAP). As of January 1, 2021, social payments for the period of the state of emergency were assigned to more than 4.6 million people in the amount of 322.8 billion tenge, and during the quarantine period, the payment was assigned to 2.4 million people in the amount of 153.5 billion tenge, which in total amounted to 476.3 billion tenge.

Box 1. Targeted social assistance

In Kazakhstan, targeted social assistance (hereinafter referred to as TSA) has been assigned since 2002. TSA is provided to unconditionally low-income individuals whose opportunities to participate in employment promotion measures are limited. Conditional TSA is provided to low-income families and requires the participation of able-bodied family members in employment promotion measures and, if necessary, social adaptation.

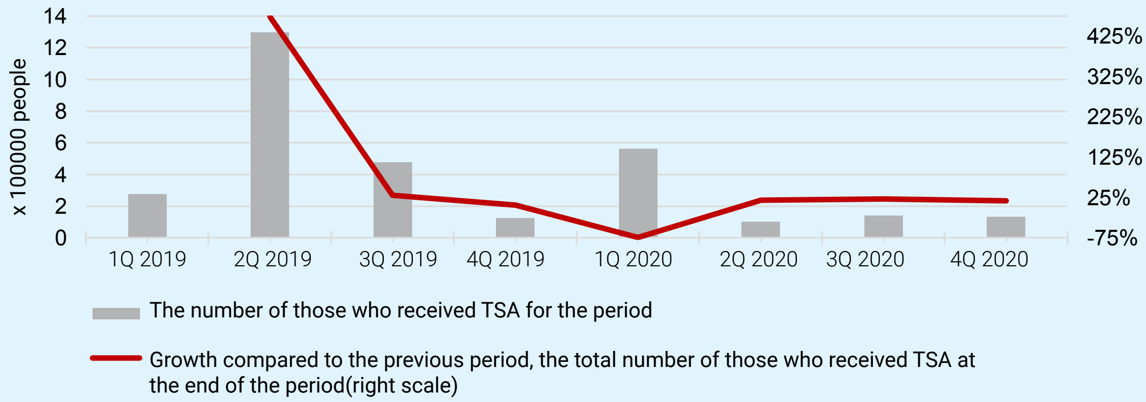
In April 2019, the threshold for TSA obtaining was changed from 50% to 70% of the subsistence level. This led to the expansion of the population coverage with targeted social assistance. Thus, the number of people receiving TSA has almost quadrupled and exceeded 2 million people. TSA payments for the adult population are calculated as the difference between the average per capita household income and the poverty line. Since 2019, TSA for minor children in low-income families began to be paid in the amount of 70% of the subsistence level, and not the difference between the average per capita income. Thus, the average monthly amount of benefits in the republic on average increased by more than 2.5 times compared to 2018 and amounted to 12188 tenge.

Chart 1.65 ***The share of TSA recipients in cities of republican significance increased in 2020***
Dynamics of TSA distribution by region (share of the total number of TSA recipients)



Source: *Ministry of Labour and Social Welfare of RK*

Chart 1.66 ***The number of TSA recipients decreased in 2020***
Increase in TSA recipients for the period

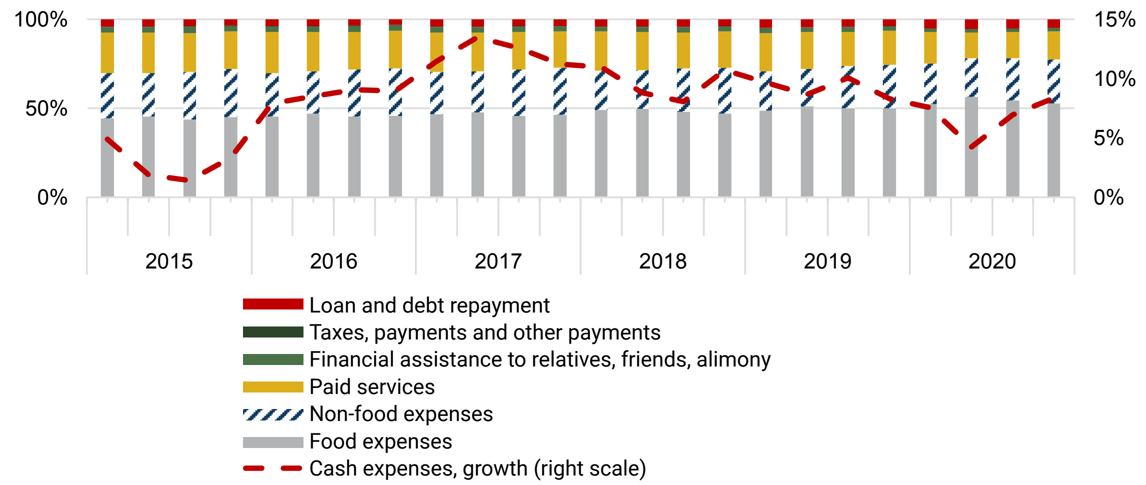


Source: *Ministry of Labour and Social Welfare of RK*

Note: *The chart shows how much the number of TSA recipients has increased for the specified quarter on the basis that payments are assigned anew from the beginning of the year*

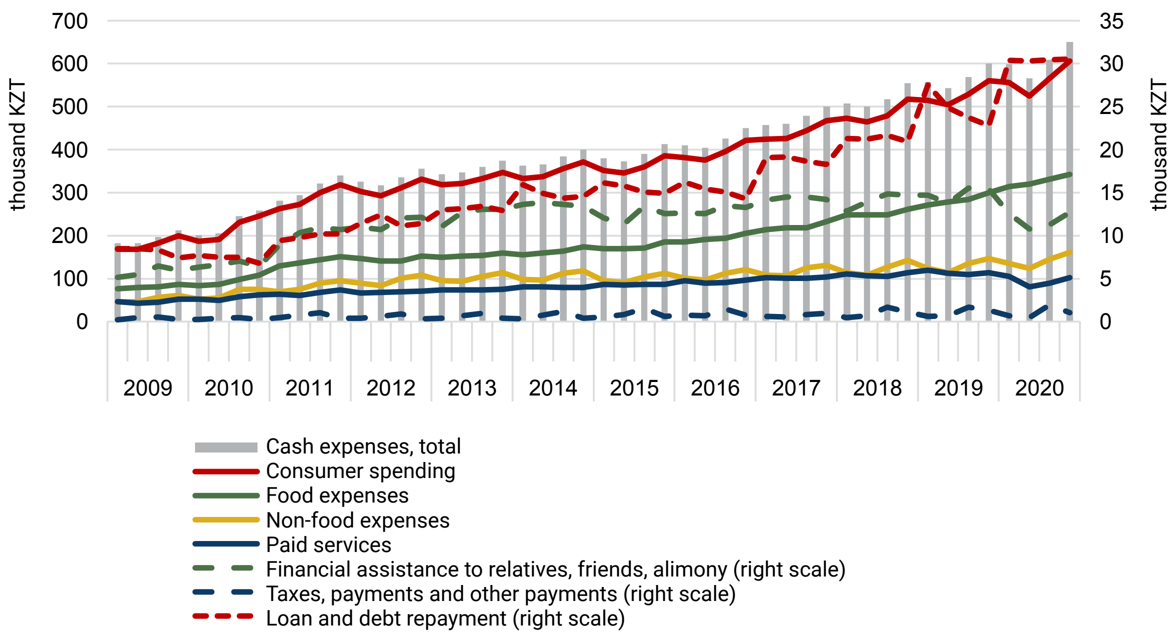
The largest number of TSA recipients in 2018-2020 was in the Turkestan region (34.2%; 28.7%; 23.9% of all recipients, respectively). As of 2020, in order to receive TSA, it is necessary that the average per capita income for each family member does not exceed 70% of the subsistence level. The number of those who received TSA in 2020 decreased and amounted to 936 thousand people, which can be explained by the improvement of the TSA provision mechanism. In particular, in order to ensure a fair and transparent allocation of benefits, the requirements for able-bodied beneficiaries of TSA were strengthened, the role of the institution of precinct commissions was strengthened, and a new state benefit for large families was introduced. Also, there was an increase in the share of those who received TSA in cities of republican significance. So, in 2019, 16.7% of all TSA recipients lived in Almaty, Nur-Sultan, Shymkent, and in 2020 about 25.1% *(Chart 1.65)*. The largest increase in the number of targeted social assistance payments in 2020 was observed in Q1, which can be explained by the deterioration of the economic situation of the population due to the quarantine restrictions introduced *(Chart 1.66)*.

Chart 1.67 ***The share of food expenditures in the household expenditures structure increased***



Source: *BNS ASPR RK*

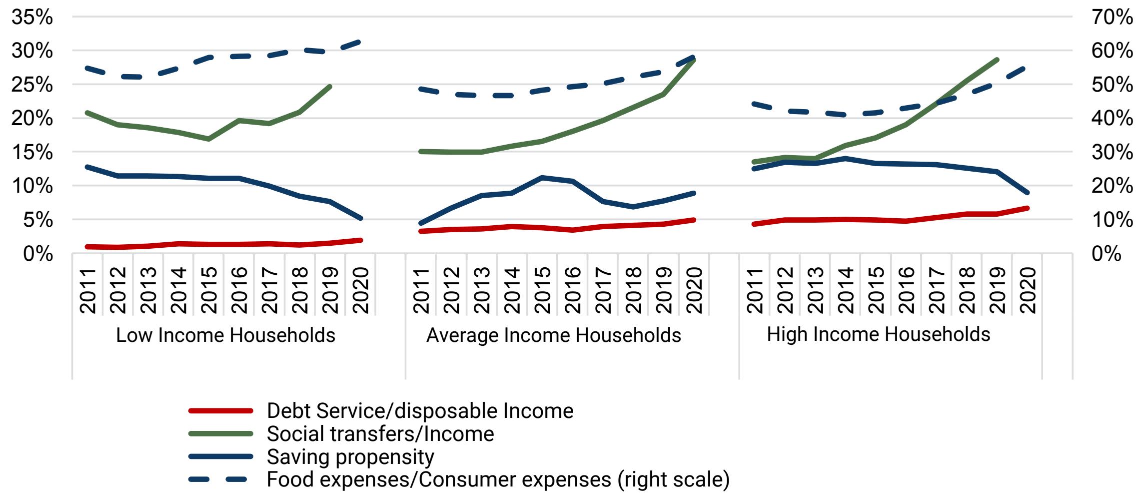
Chart 1.68 ***Against the background of quarantine restrictions, secondary household expenses decreased***
Household expenditures in monetary terms



Source: *BNS ASPR RK*

In 2020, under the influence of quarantine restrictions, the growth rate of household cash expenditures decreased compared to 2019 (6.8% compared to 9.2% per year) *(Chart 1.67)*. It occurred due to a decrease in household expenditures for paid services and material assistance to relatives. Expenses on paid services demonstrated the largest decrease in Q2, having decreased by 27.2% compared to Q2 2019 *(Chart 1.68)*. These dynamics can be explained both by a decrease in supply due to quarantine restrictions, and by a general restriction in demand due to growing uncertainty. In 2020, there was an increase in consumer spending, driven by higher food spending. Against the background of temporary tax exemptions, expenses on taxes and payments in Q2 2020 decreased by 31.6% compared to Q2 2019, however, in Q3 and Q4, expenses on taxes and payments showed multidirectional dynamics. In Q1, the growth rate of debt service costs slowed down, which is explained by the deferred payments provided by banks. In Q2, Q3, and Q4, households again began to spend more on debt servicing (by 21.8%, 28.6%, 33.9% more than in 2019), which is explained by the need to finance expenses with borrowed funds due to a decrease in real income.

Chart 1.69 ***The ratio of debt service costs to disposable income continues to grow***
Savings propensity



Source: *NBRK's calculation based on data from BNS ASPR RK*

Note*: Social transfers include pensions, scholarships, allowances, and TSA Low-income households - households in Decile 1.*

Households with the highest income are households in Decile 10. Savings propensity (a) is calculated as: $\alpha=1-\frac{\beta}{\gamma}$, *where:*
β - household consumer income, γ - household disposable income, i.e. income minus taxes, fines, mandatory payments and material assistance to relatives

In 2020, the share of expenditures on food products in consumer spending increased markedly; the population also showed an increase in the savings propensity *(Chart 1.69)*. This behavior may be attributed to the motive for precautionary savings due to the increased uncertainty caused by the pandemic.

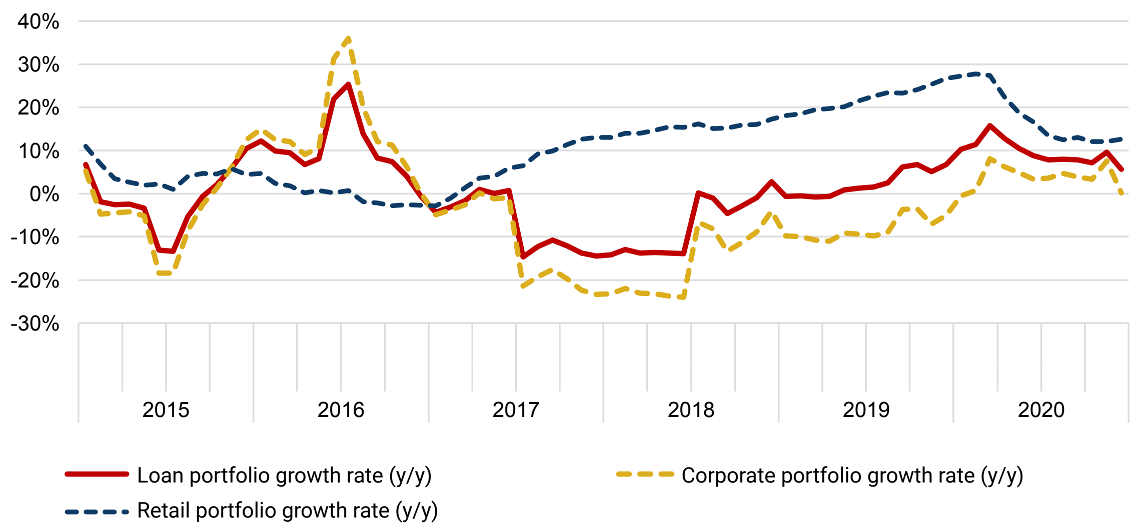
An alternative explanation could also be the lack of shopping opportunities due to current epidemiological restrictions. At the same time, the savings propensity of the most and the least affluent households declined. This phenomenon can be explained by the financial difficulties of the first decile households and the investment strategy of the tenth decile households. Also, during 2020, there was an increase in the share of debt service costs to disposable income, which is potentially explained by the need to finance costs through borrowing due to a decrease in labor income.

1.8 Lending activity

In 2020, the spread of coronavirus infection and the quarantine introduction significantly slowed down the development of the financial sector, which also brought the decrease in lending activity in the economy. Moreover, prolonged restrictive measures led to a weakening of the economic entities' solvency, which in turn exacerbated the systemic problem of insufficient quality borrowers in the economy. Nevertheless, the growth of the loan portfolio against the background of a decrease in the issuance level was supported by the government programs, the role of which in lending has been increasing every year. The implementation of anti-crisis measures to support entrepreneurship through lending programs contributed to the recovery of lending activity in the second half of 2020. At the same time, during the year, the largest portfolio growth was accounted by retail lending, while the corporate portfolio continued to shrink. Taking into account the need to implement restrictive measures, further growth of the loan portfolio will depend on the stabilization of the situation with the pandemic, and the increase in its productivity will be determined by the economic policy of the state.

In 2020, the banks' loan portfolio continued to grow, but at a more moderate pace compared to the previous period. Thus, the growth of the banks' loan portfolio in 2020 amounted to 5.6% against 6.7% in 2019 *(Chart 1.70).* The main factor that influenced the slowdown in lending was the introduction of restrictive measures aimed at curbing the spread of COVID-19. The reduction in working hours and the transition to remote operation of banks on the one hand, as well as the tightening of lending conditions due to the deteriorating financial condition of clients on the other hand, significantly reduced lending activity in the economy.

Chart 1.70 ***The retail portfolio is the main driver of loan portfolio growth***

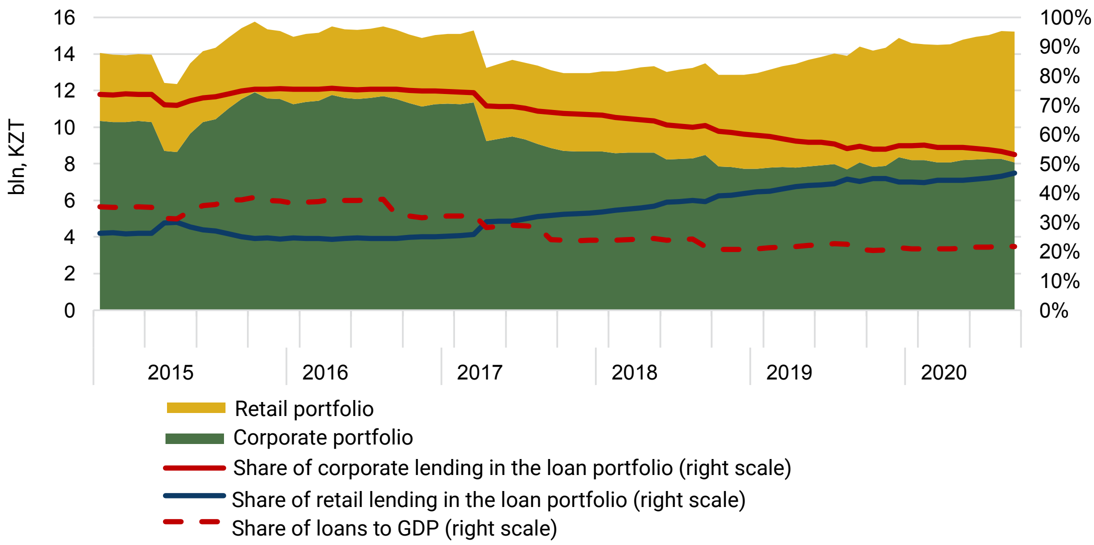


Source: *Bank statements*

The decrease in the loan portfolio by 2.5% q/q was observed in Q2 2020, mainly due to the decrease in the corporate portfolio. The increase in the portfolio by the end of the year became possible after the relaxation of quarantine measures and the adaptation of both banks and consumers of financial services to the new conditions. At the same time, in 2020, the withdrawal of an insolvent bank from the system within the framework of the regulator's policy to improve the financial sector, as well as the merger of large banks, contributed to a slight reduction in the corporate loan portfolio.

At the same time, the level of loans in relation to GDP continued to remain at the same level and by the end of 2020 reached 21.7% (in 2019 - 20.7%). Against the background of the stagnation of the corporate portfolio, the main contribution to the growth of the loan portfolio remains with retail lending, whose share in the total loan portfolio has reached 46.8% *(Chart 1.71).*

Chart 1.71 ***The loan portfolio, mostly retail, showed growth, despite the pandemic and lockdown***



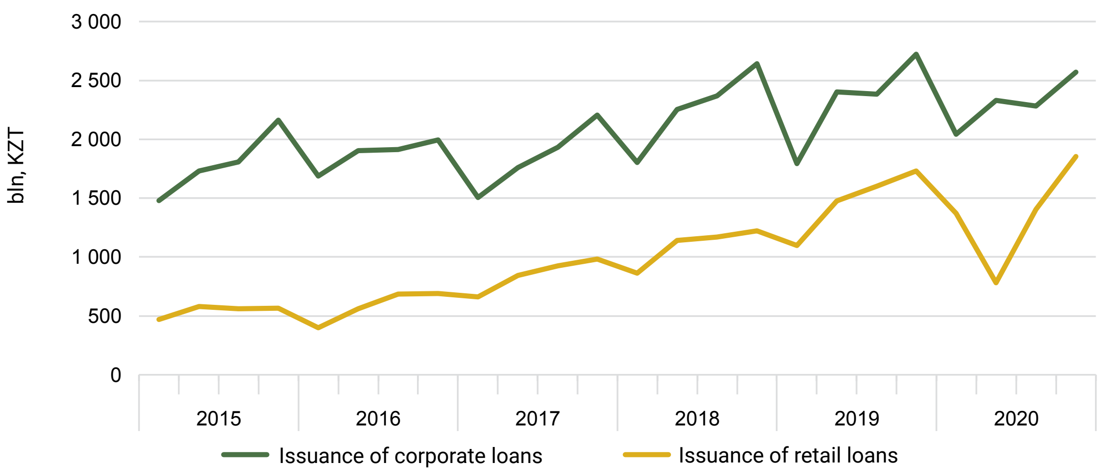
Source: *Bank statements*

In 2020, the growth of the retail portfolio turned out to be significantly lower than the previous period and amounted to 12.6% (in 2019 - 26.8%). The lockdown introduction and a decrease in income significantly reduced the purchasing capability of the population, which, accordingly, had an impact on the growth rate of the retail portfolio. The provided anti-crisis measures of state support in the form of deferred payments allowed borrowers to suspend servicing the current bank debt and reduce the debt burden of the population during the period of restrictive measures in the country (for more details, see section V. Credit risk).

In turn, the corporate portfolio remained at the same level (growth was 0.2% y/y), and the volume of issued loans in 2020 remained practically unchanged compared to the previous year (decline - 0.8% y/y) *(Chart 1.72)*. In the period analyzed, the demand for corporate loans from enterprises mainly remained for short-term loans due to the need to finance working capital. According to a survey of banks on lending conducted by the National Bank in 2020, respondents associated the growth in demand for credit resources with the need to restructure existing loans, mainly in services and trade.

At the same time, the demand for government programs to support entrepreneurship, providing an opportunity to obtain loans on favorable terms, remained at a high level. In order to maintain the economic activity of the real sector, during the period of the restrictive measures, the volume of financing for business lending programs was significantly increased.

Chart 1.72 ***The pandemic slowed down the issuance of loans to the economy***
Volumes of loans issued by lending segment

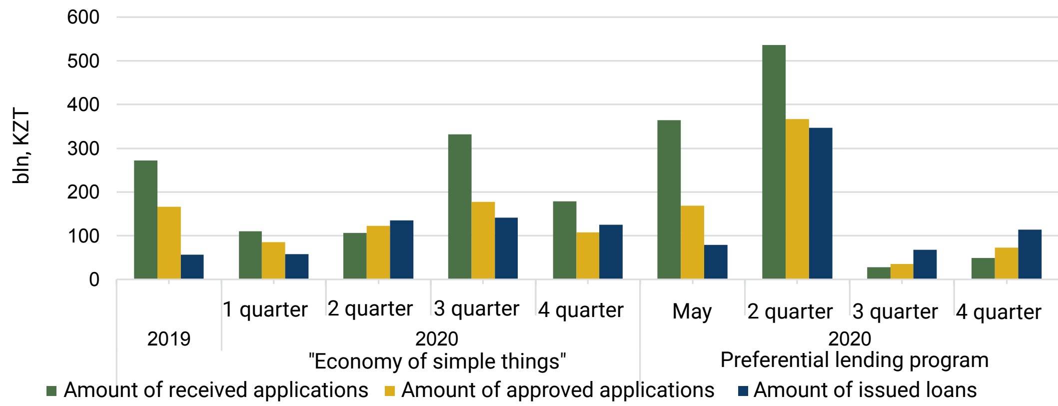


Source: *Bank statements*

Thus, in March 2020, the National Bank launched the program of concessional lending to business entities in the amount of 600 billion tenge with a further expansion to 800 billion tenge[4]. The purpose of this program was to provide loans and credit lines to replenish working capital for a period not exceeding 12 months at a rate not exceeding 8% per annum. According to the terms of the Program of Preferential Lending, the main recipients of state support were both small and medium-sized businesses and individual entrepreneurs who suffered from the introduction of a state of emergency in the country. Also, this anti-crisis measure was aimed at large businesses that suffered the most significant losses from the impact of the COVID-19 pandemic. At the end of 2020, the number of applications received under this program amounted to 2.5 thousand for a total amount of 612.5 billion tenge, for which loans were issued in the amount of 528 billion tenge (*Chart 1.73)*. The significant demand for the allocated funds demonstrates the popularity of the program, which is evident from the volume of funds disbursed at the beginning of its implementation and at the end of the year.

Also, there was an expansion of financing for another lending program initiated by the National Bank. Thus, as part of the anti-crisis support measures, the volume of funding for the Economy of Simple Things program was increased by 400 billion tenge. The total amount of funding for the program has reached 1 trillion tenge. The program consisted of subsidizing part of the interest rate by the state and providing funds to end borrowers at 6% per annum for a period of 10 years. Under this program, in 2020, banks accepted 1,373 applications for a total amount of 998.4 billion tenge, for which 778 loans were issued in the amount of 516.2 billion tenge.

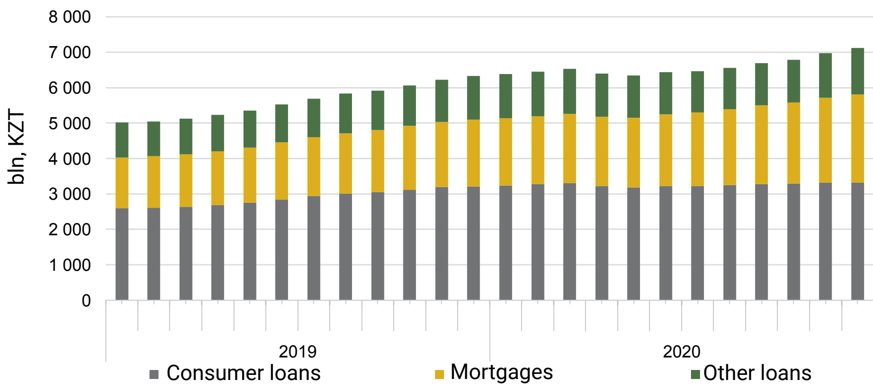
Chart 1.73 ***Implemented anti-crisis measures supported the demand for credit resources from the real sector***
Corporate loans issued under the government programs "Economy of Simple Things" and "Preferential Lending to Business Entities"



Source: *Bank data*

In 2020, government programs also had an impact on retail lending. Thus, the main drivers of retail portfolio growth were mortgage and unsecured consumer loans *(Chart 1.74)*.

Chart 1.74 ***Consumer and mortgage loans were the main driver of retail portfolio growth***
Loans to individuals for lending purposes



Source: *Bank statements*

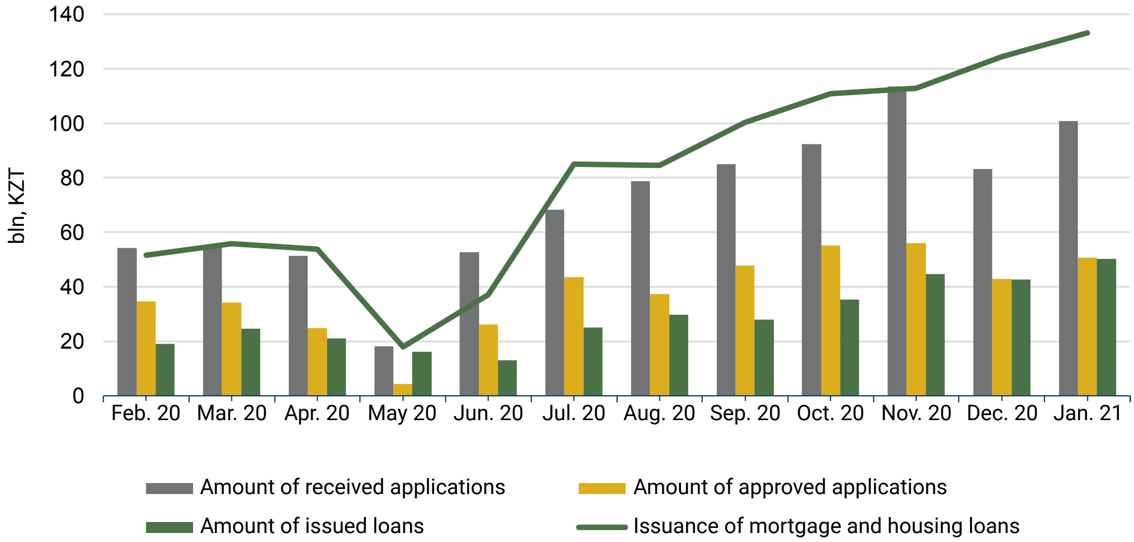
With the introduction of quarantine measures, the demand for mortgage lending, similar to other types of retail lending products, decreased, and the issuance of new mortgage loans slowed down to 18.3%, compared to 68.5% in 2019. According to the lending survey, the customer demand for mortgage lending was concentrated mainly in the segment of secondary housing. The active growth of this segment of retail lending in recent years has been

[4] Resolution of the Board of the National Bank of the Republic of Kazakhstan dated March 19, 2020 No. 39 «On approval of the Program of concessional lending to business entities»

stimulated by government programs aimed at improving housing conditions. At the end of 2020, under the "7-20-25" program, banks received 48.5 thousand applications in the amount of 568.7 billion tenge, for which 22.2 thousand loans were issued in the amount of 259.3 billion tenge. Under the "Baspana Hit" program, they received 95.8 thousand applications for 870.3 billion tenge and issued 42.3 thousand loans for 372.3 billion tenge *(Chart 1.75)*.

By the end of 2020, the state announced a new program to improve the housing conditions of the population in the form of the possibility of partial use of pension savings. The program was being implemented by "Otbasy Bank" JSC. This initiative further strengthened the state's contribution to the development of mortgage lending, and increased the risks of market overheating.

Chart 1.75 ***Despite a sharp decline in demand during the quarantine measures, the mortgage and housing loans issued under the government programs increased by the end of 2020***
Mortgage and housing loans under the programs "7-20-25" and "Baspana Hit"



Source: *Bank data*

In 2020, the demand for consumer lending from the population was limited by the deterioration of their financial situation due to the introduction of restrictive measures in the country. According to a survey of banks on lending for Q2 2020, the number of received loan applications for consumer loans, in particular for unsecured loans and car loans, decreased by 35.3% and 31.8%, respectively, compared to the previous quarter. However, the realization of the demand accumulated during the quarantine measures led to an increase in demand for consumer loans in the second half of 2020. As part of the lending survey, respondents noted that in 2020 the main factors that influenced the increase in demand for consumer loans were the decrease in interest rates by individual banks and active marketing campaigns, as a result of which the competition for quality borrowers between banks increased. Thus, the growth of the consumer portfolio for the year amounted to 3.4%. It is worth noting that with the lockdown introduction in the country, many banks had to revise the policy of promoting their products, which led to the active implementation and improvement of online sales channels, and, in general, laid the foundation for a wider coverage of potential borrowers.

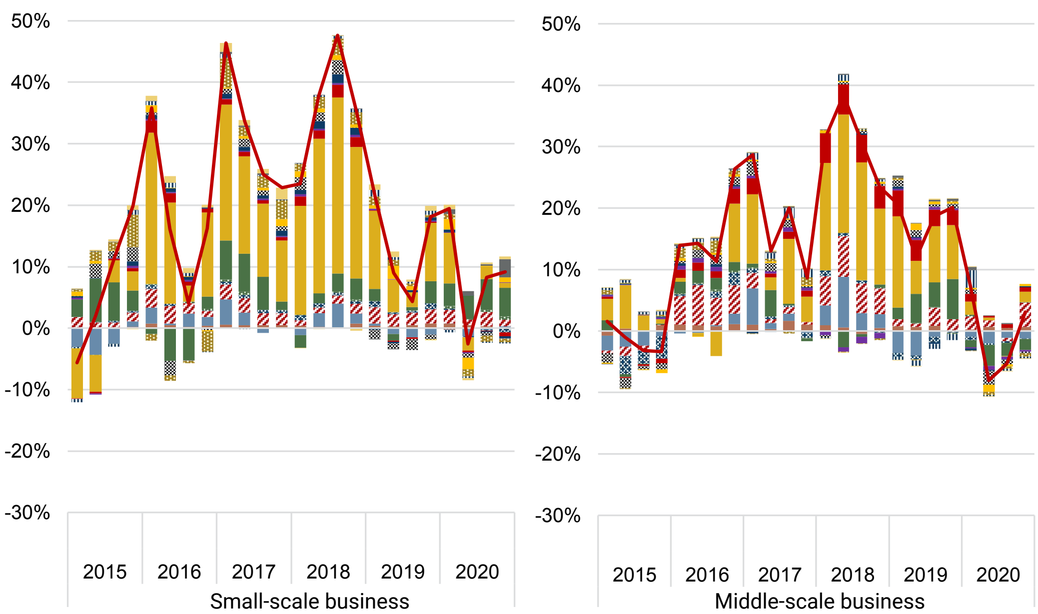
1.9 Corporate sector

In the real sector, there was a decrease in the share of enterprises with insufficient capital. The bulk of bank debt is still concentrated on their balance sheets. Such enterprises have fewer liquid assets, and they are less likely to manage accounts receivable and payable. Providing loans to enterprises with low capital levels creates long-term risks for the financial stability of banks and reduces the economy's ability to absorb shocks.

The burden on the financial stability of highly leveraged[5] enterprises increases, especially in the periods of economic downturn. During the 2020 pandemic, enterprises with a high debt burden suffered the greatest losses in operating cash flows, accompanied by the cost of servicing a significant amount of liabilities. In times of stress, such enterprises become less competitive and suffer large losses. In the event of a further deterioration in the financial condition and a decrease in the capital of enterprises to negative values (insolvent), the probability of default increases. The withdrawal of insolvent enterprises will help improve the quality of economic growth, attract investors and reduce risks in the financial sector.

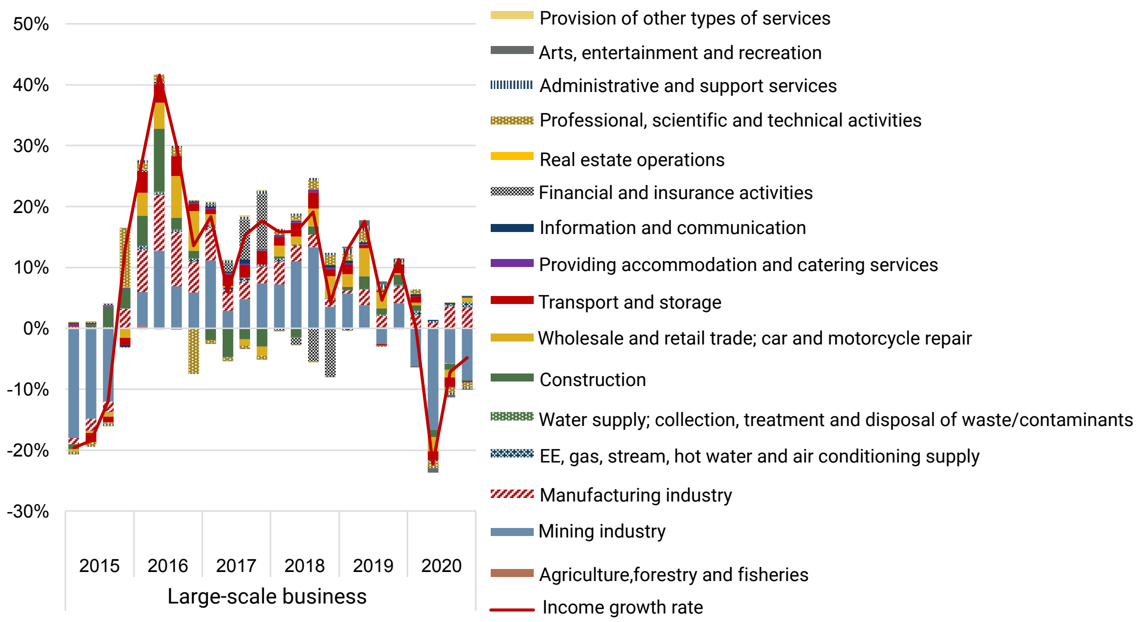
During 2020, as a result of long-term quarantine measures, the income of enterprises has noticeably decreased, especially in Q2 *(Chart 1.76)*. The largest decrease in income was observed in the enterprises operating in the mining, construction, real estate, trade, transport and warehousing sectors. By the end of the year, as quarantine measures eased, the income growth for small and medium-sized enterprises recovered to positive values, but remained negative in the segment of large enterprises. The relative stability of small and medium-sized businesses[6] during the pandemic is largely explained by the large-scale measures of supporting such enterprises by the state. It is worth noting that the large industrial enterprises, whose incomes were declining during the pandemic, had 55% of the bank debt of all the large enterprises at the beginning of 2020. On the contrary, the small and medium-sized enterprises, whose incomes have declined markedly, were operating in the least heavily leveraged industries.

Chart 1.76 ***The income of enterprises decreased markedly in the 2nd quarter of 2020***



[5] For the purposes of analyzing the real sector, enterprises with positive capital but a high debt burden (more than 80%) are conditionally classified as undercapitalized, and enterprises with negative capital are classified as insolvent. The concept of insolvency used in this section is based on an analysis of enterprise reporting. There is no information on the recognition by the court of such enterprises as insolvent

[6] It should be noted that BNS ASPR RK for each reporting date collects a report on the financial and economic activities of small enterprises for a sample of enterprises, and the analyzed period could not include enterprises that were on the verge of liquidation. In 2020, the number of respondents among small enterprises decreased by an average of 10% per year, and by 3% among large and medium-sized enterprises. In this section, we used data on small enterprises for the general population formed on the basis of a sample

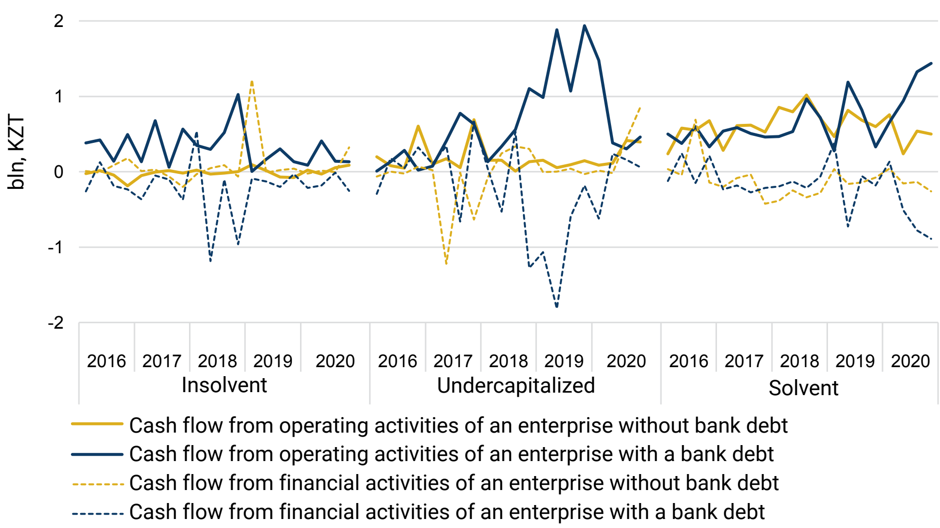


***Source:** BNS ASPR RK*

***Note:** Revenue growth rates (quarter to the same quarter of the previous year) are calculated based on the total volume of quarterly revenues of enterprises. At the same time, the income of small enterprises is presented according to the data spread over the general population, in medium and large businesses – according to the general population*

In 2020, along with income, cash flows from operating activities of enterprises also decreased. Thus, the total volume of operating cash flow of large and medium-sized enterprises in Q2 2020 decreased in comparison with the same period of 2019 by almost two times (by 45%). At the same time, the dynamics of cash flows, depending on the solvency and availability of a loan from an enterprise, are noticeably different *(Chart 1.77)*. The cash flow of enterprises with bank debt has historically been more volatile than that of the enterprises without bank debt. At the same time, cash flows from operating activities of enterprises with bank debt are almost completely covered by negative cash flows from financial activities, to a greater extent associated with servicing bank debt. Relatively low cash flows in a group of insolvent enterprises may be a sign of ineffective use of working capital, in particular, accounts receivable and payable, as well as inventories. Thus, at the end of 2020, the group of enterprises with insufficient capital showed the greatest decrease in operating cash flows.

Chart 1.77 ***Cash flows of undercapitalized enterprises with loans were the most unstable***

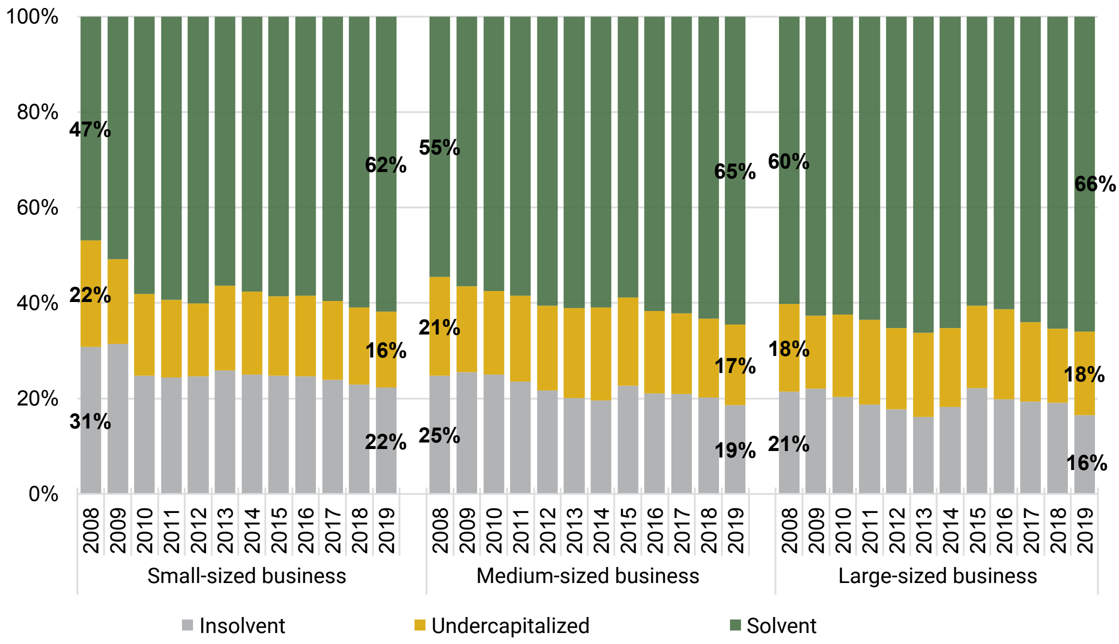


Source: *BNS ASPR RK*

***Note:** The company's quarterly cash flow is calculated as the arithmetic mean of the general population for medium and large enterprises. Cash flow is the difference between cash inflow and outflow*

At the beginning of 2020, the decrease in the share of undercapitalized or insolvent enterprises was within 1-2 pp compared to the previous year for all business segments and amounted to 38%, 35% and 34% for small, medium and large enterprises, respectively *(Chart 1.78)*. At the same time, the number of enterprises with negative capital among small and medium-sized enterprises exceeds the number of undercapitalized ones. At the same time, there has been a positive trend towards an increase in the share of solvent enterprises in recent years.

Chart 1.78 ***The share of undercapitalized and insolvent enterprises has been gradually decreasing since 2008***
Structure by the number of enterprises at the end of the period



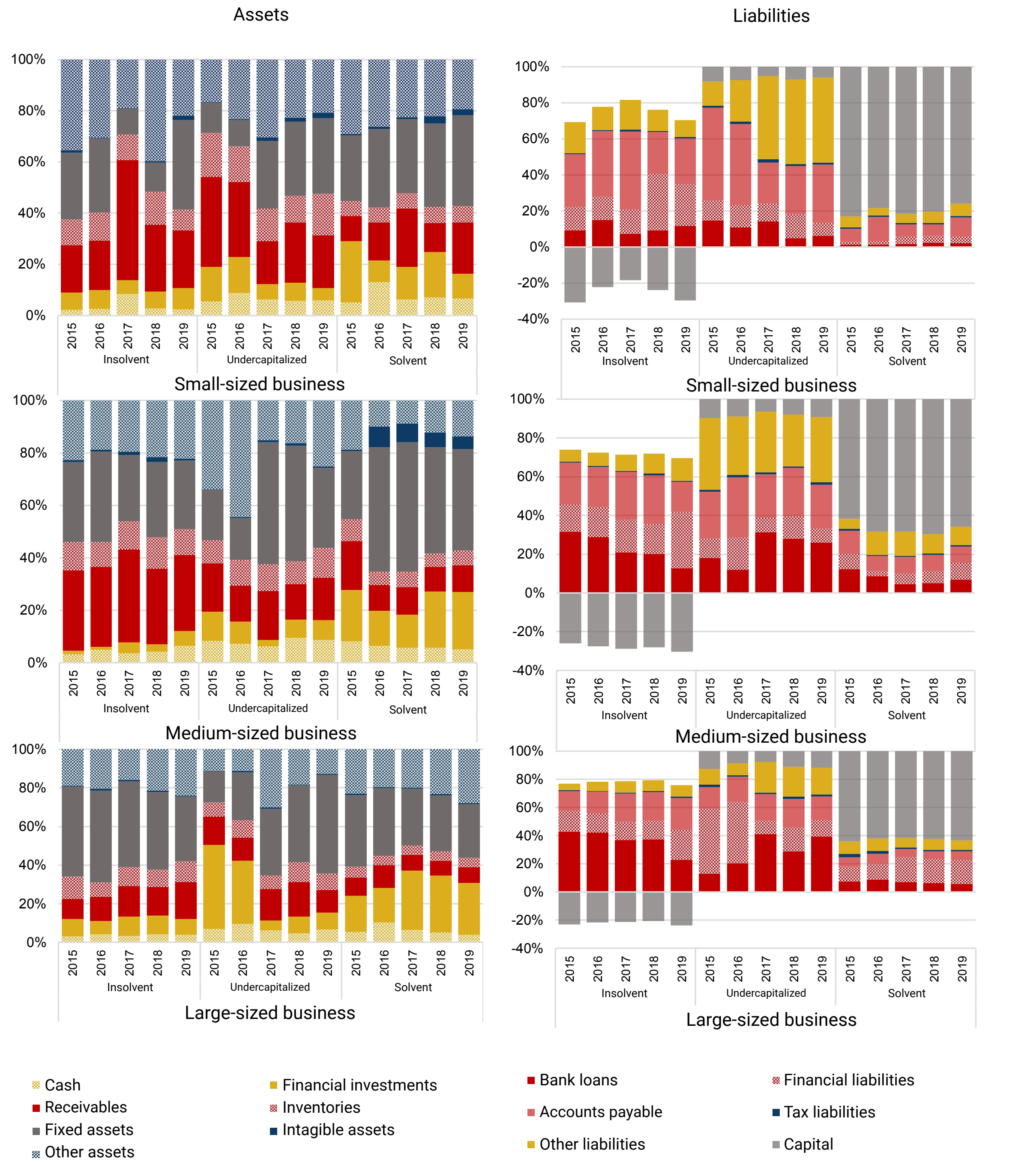
Source: *BNS ASPR RK*

Note: *The share of enterprises is calculated in small businesses by the sample population, in medium and large businesses - by the general population*

The enterprises' balance sheets analysis allows to identify several features in their structure of assets and liabilities, depending on the size and solvency *(Chart 1.79)*. First, the insolvent and undercapitalized enterprises' accounts receivable and payable are worse managed. The large volume of such debt is indicative of low collection rates from customers and slower payment of vendor invoices. The accumulation of accounts receivable on balance sheets increases the risk of non-refunds and reduces cash flows, while a high proportion of accounts payable increases the likelihood of default by the enterprise itself. Second, solvent enterprises are more liquid, and borrowed funds are not the main source of their assets funding.

In contrast, the enterprises whose assets are primarily funded by liabilities have little liquidity. During the periods of high volatility of cash flows, less liquid enterprises with a high debt burden incur maximum losses. Finally, the most important feature in the structure of liabilities of insolvent enterprises is a high concentration of bank debt and other financial liabilities, which in turn indicates the high risks for the financial sector.

Chart 1.79 ***Solvent enterprises have less accounts receivable, than insolvent and undercapitalized ones. Bank loans are mainly on the balance sheets of enterprises with negative capital***
Structure of assets and liabilities of enterprises by size and solvency



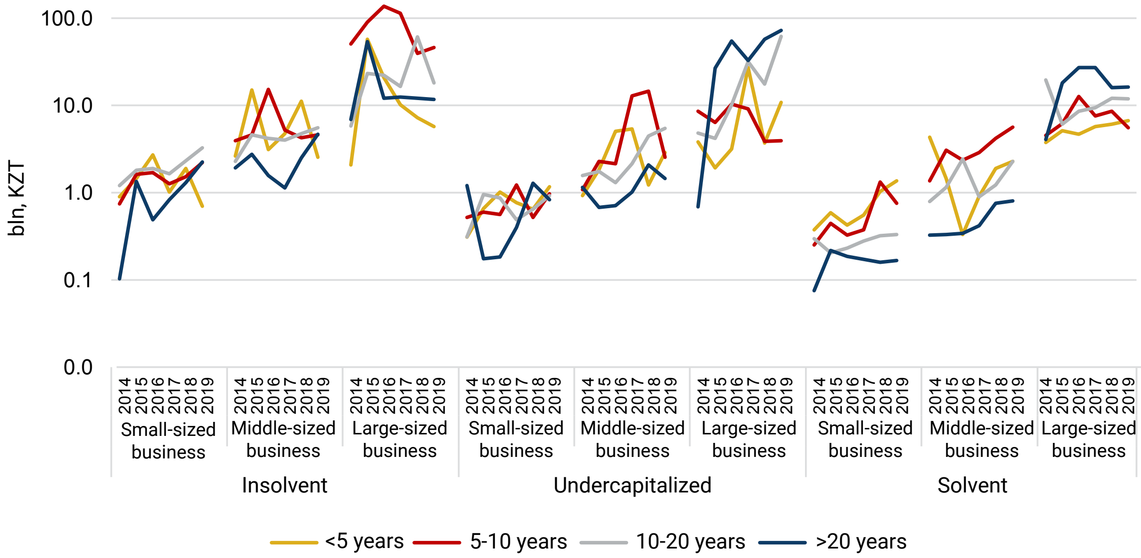
Source: *BNS ASPR RK*

Note: *Assets and liabilities of small-sized businesses are presented by the sample population, in medium and large-sized businesses - by the general population*

In the period 2015-2019 the volume of bank debt and financial liabilities among insolvent enterprises, on average, accounted for more than half of the volume of assets, and among undercapitalized enterprises - more than 20%. By the beginning of 2020, 45% of the total volume of bank debt of enterprises was concentrated on the balance sheets of insolvent enterprises, mainly small ones. In terms of maturity, a large share of enterprises' debt on bank loans refers to long-term liabilities (61%), and 50% in the group of insolvent enterprises. In the context of economic sectors, 54% of the bank debt of small enterprises was attracted by wholesale and retail trade enterprises with negative capital.

More than half of the bank debt of medium and large enterprises (54 and 53%, respectively) is concentrated in the manufacturing and transport (warehousing) sectors, whose capital is mostly positive.

Chart 1.80 ***The older and solvent SMEs, the lower their bank debt***

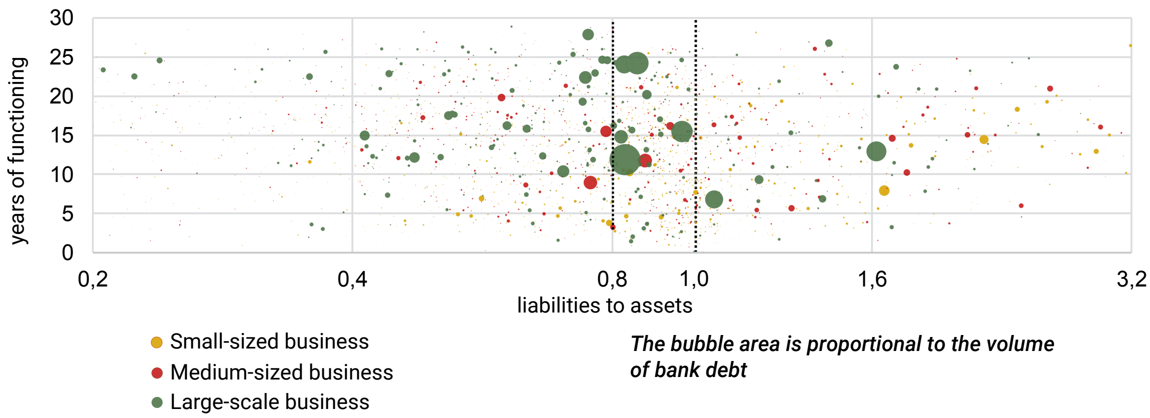


Source: *BNS ASPR RK*

Note: *The average loan size is calculated in small-sized businesses by the sample population, for medium and large-sized businesses - by the general population*

Depending on the age of enterprise, their readiness to assume obligations on bank loans differs *(Chart 1.80)*. The average bank loan size of small and medium-sized enterprises under 20 years of functioning is higher than that of their more mature competitors. On the contrary, in the segment of large-sized businesses with positive capital, the average size of a bank loan from enterprises over 20 years of functioning is at the maximum level. However, the size of bank debt of a solvent business practically does not depend on age and, on average, is lower than that of an undercapitalized or insolvent enterprise. By the beginning of 2020, the borrowers aged over 5 years and with a share of liabilities to assets above 60% had the largest volume of bank debt *(Chart 1.81)*. At the same time, the largest borrowers among small-sized enterprises were concentrated in the group with negative capital, and in the segment of large and medium-sized enterprises - among undercapitalized ones.

Chart 1.81 ***Undercapitalized enterprises aged over 10 years concentrate the bulk of loans at the beginning of 2020***

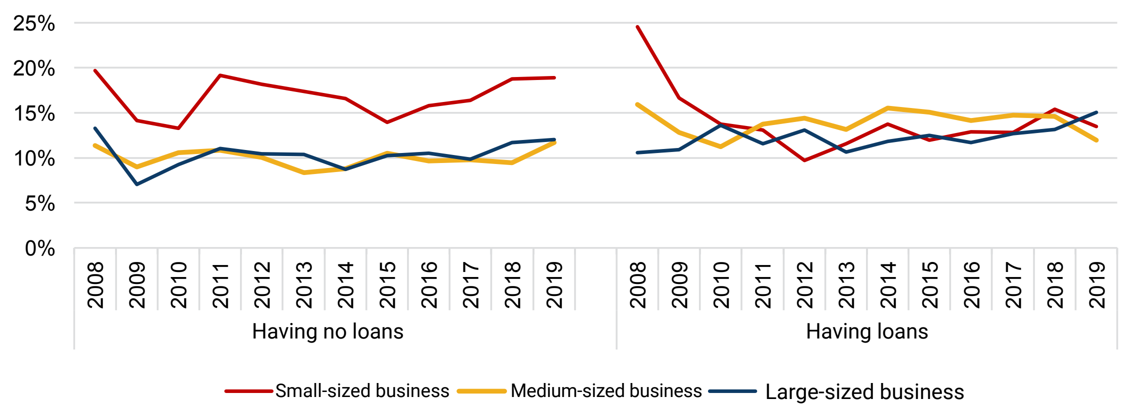


Source: *BNS ASPR RK at the end of 2019*

Note: *The volume of loans to small-sized businesses is presented by the sample population, in medium and large-sized businesses - by the general population. The bold dashed line represents the level of liabilities equal to assets. The bubble area is proportional to the volume of bank debt on the balance sheet of the enterprise*

The assessment of the enterprises' returns on capital shows that for the median enterprise, this indicator is historically higher in the segment of medium and large-sized businesses that have a bank loan *(Chart 1.82)*. However, small-sized businesses without bank debt are, on average, more profitable than their counterparts with loans. The return on equity is distinguished by several factors that determine the profitability of an enterprise. Thus, the tax burden in the small-sized business segment, on average, is higher for enterprises that do not have bank debts, although the level of this indicator among medium and large-sized businesses practically does not depend on the availability of a loan. The interest burden is higher for enterprises with loans, and, in most cases, they have high financial leverage. EBIT margin is on an upward trend and, on average, is higher for enterprises with bank debt. On the contrary, the asset turnover (revenues to assets) is lower for borrowing companies.

Chart 1.82 ***The capital of small-sized enterprises with bank debt is less profitable***
Median Return on Equity of Enterprises (RoE)



Source: *BNS ASPR RK*

Note: *The median value of the return on capital of in small-sized enterprises is calculated by the sample population, in medium and large-sized businesses - by the general population. Return on equity (RoE) is the ratio of net profit to the average annual capital of the enterprise*

Debt capital is an important source of business development and scaling, but in conditions of ineffective business management, a high level of debt leads to an increased level of losses, and the likely bankruptcy of the enterprise. The long-term presence of such enterprises in the economy reduces the investment attractiveness of the business, and, in general, has many negative consequences for all spheres of the economy. The high level of credit risk of such enterprises is reflected in the tightened conditions for lending to businesses, including solvent enterprises. State programs to support entrepreneurship without establishing selection criteria for the solvency of enterprises reduces their effectiveness, and also has a negative impact on the quality of economic growth.

II

Government securities market

Against the backdrop of rising spending and budget deficits amid the pandemic, the volume of public debt has increased significantly, although it remains at a fairly low level relative to other comparable economies. Joint actions of the National Bank and the MF RK made it possible to increase the share of voluntary investors' participation in the primary public debt market from 3.8% in 2019 to 32.7% in 2020, which laid the foundation for further formation of the market yield curve. Demand for new issues of the MF RK mainly came from banks, partly due to the active offer of the MF RK for securities in the short-term segment of the curve, which is of traditional interest for banks. Thus, after a long break, the MF RK in 2020 issued short-term GS for up to three years in the amount of about 1.0 trillion tenge. This caused increased demand from market participants and non-residents. The yield curve at the medium and long-term end remained flat during the period under review. Whereas the short-term segment of the curve reflected the base rate changes.

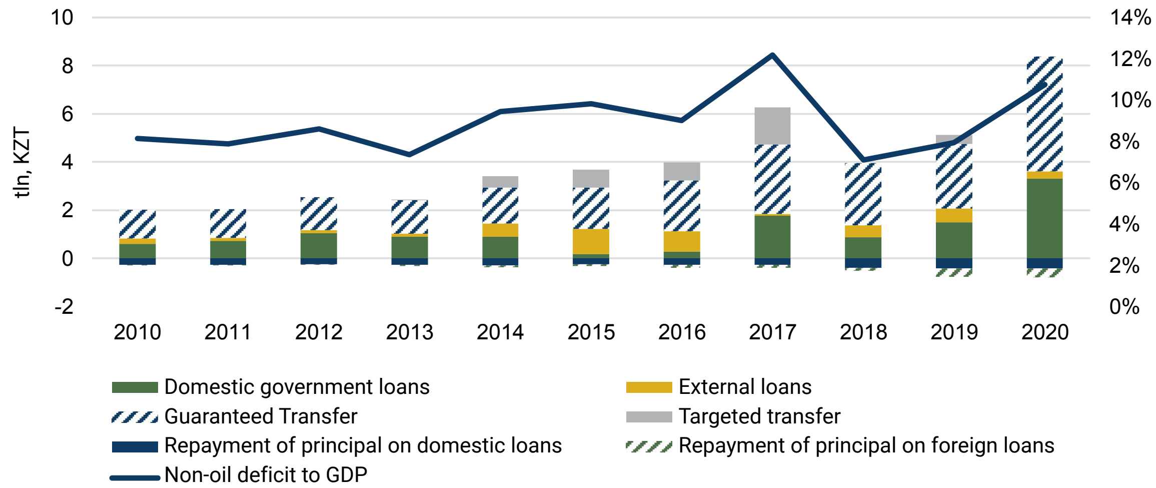
The NBRK notes market remains relatively liquid, and its rates continue to reflect the voluntary demand of second-tier banks for risk-free tenge assets and their monetary policy expectations. The market for medium and long-term bonds of the MF RK continues to be illiquid. Two-thirds of the tenge debt of the MF RK is concentrated in the portfolios of capital investors, which is reflected in the structure of demand and distorts the pricing process. The smallness of most issues and the tendency of investors to hold GS to maturity limit the number of potential holders and reduce the market turnover. It in turn reduces the informational value of the risk-free yield curve and its ability to aggregate the expectations of market participants. Under these conditions, the GS market role as an initial link in the interest rate channel of the transmission mechanism of monetary policy is limited.

2.1 The active use of the resources of the National Fund of the Republic of Kazakhstan brought it closer to the irreducible balance

The increase in government spending, along with the decrease in tax revenues to the budget, led to the budget deficit increase. Therefore, the deficit of the republican budget in 2020 amounted to 2.2 trillion tenge or 3.1% of GDP. These measures were forced as part of countering the coronavirus infection spread, as well as facilitating the implementation of the state's countercyclical policy. However, the further continuous implementation of such measures to support the economy by increasing public debt and using the assets of the NF RK may lead to the loss of a long-term balanced trajectory of budget stability. To prevent such consequences, the National Bank, together with the Government of the Republic of Kazakhstan, is developing the countercyclical budget rule.

The negative effect of the coronavirus pandemic and the effect of the quarantine measures introduction, including a decrease in tax revenues, an increase in current expenditures and a decrease in the share of capital expenditures, an expansion of the remaining permanent budget deficit, showed that the Kazakhstani budget is highly vulnerable to sharp shifts in the economy. The deficit of the republican budget at the end of 2019 formed at the level of 2.1%, and in 2020 it amounted to -3.1% of GDP. At the same time, the non-oil deficit reached 7.9% of GDP in 2019, and in 2020 it amounted to 10.7%. According to the Concept for the formation and use of the NF RK dated December 2019, the non-oil deficit in 2020 should not have exceeded the level of 7.1% of GDP. The excess was driven by rising expenditures in tackling the pandemic in 2020. The concept provides for a decrease in the non-oil deficit to 6.6% in 2021, 6.5% in 2022, 6.4% in 2023.

Chart 2.1 ***Transfers by the NF RK remain the main source of financing the non-oil budget deficit***
Financing structure of the non-oil budget deficit of the Republic of Kazakhstan



Source: *MF RK, CSD, NBRK calculations*
Note: *ML stands for the main debt*

The transfers from the NF RK remained to be the main source of financing the non-oil deficit of the republican budget in 2020 *(Chart 2.1)*. As of the end of 2020, the funds were allocated to the state budget from the NF RK in the amount of 4.77 trillion tenge (guaranteed transfer - 4.77 trillion tenge, there was no target transfer). In 2019, the total volume of guaranteed and targeted transfers amounted to about 3.1 trillion tenge.

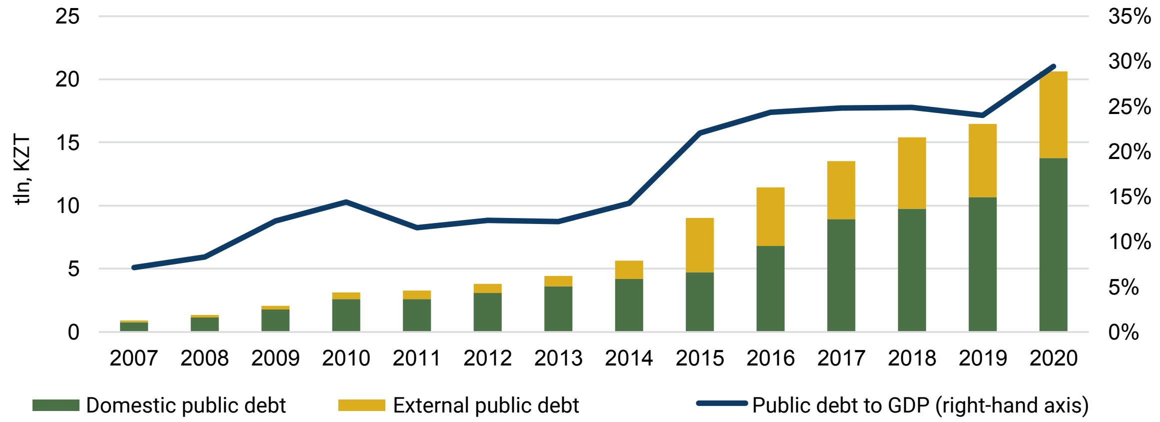
With the continued slow economic growth against the backdrop of pessimistic forecasts for oil prices, procyclical fiscal policy and low efficiency of government spending[7], the resources of the NF RK will actively decline, which may lead to a significant narrowing of the fiscal space. It emphasizes the importance of solving strategic issues of fiscal policy, in particular, the formation of mechanisms for increasing budget discipline, improving the budget process, increasing the efficiency of public spending.

The public debt as of January 1, 2021 amounted to 20.6 trillion tenge, having increased by 20.1% compared to the previous year. 80.7% of the debt was formed at the expense of the Government debt of the Republic of Kazakhstan, the National Bank debt accounts for 14.2%, the local executive bodies debt accounts for 5.1%.

Also, in addition to explicit government obligations, there are some hidden off-budget obligations, such as government guarantees and sureties for the debts of quasi-government companies, which can have a significant impact on the sustainable trajectory of government debt. Additionally, in the context of the debt market low efficiency and limited development of the institution of long-term investors in the country, the demand volume of the domestic debt market is shrinking, which may lead to a decrease in access to debt financing in the national currency and a further increase in interest rates.

[7] The low efficiency of public spending refers to their excessive dependence on oil prices and the need for transfers from the National Fund of the Republic of Kazakhstan on an annual basis

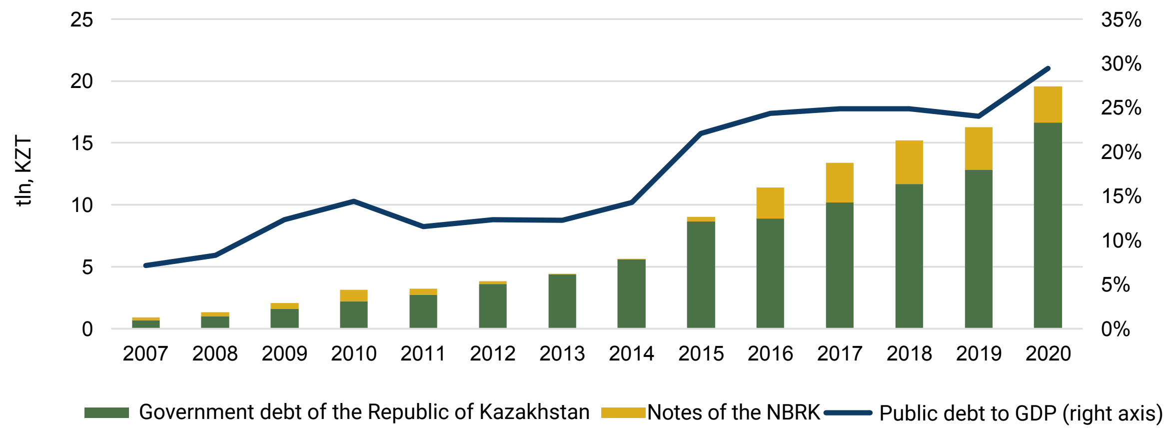
Chart 2.2 ***Public debt continues to grow due to both internal and external debt***



Source: *MF RK*

The obligations of the National Bank are the result of the monetary policy implementation within the framework of its main mandate to maintain price stability *(Chart 2.2)*. Thus, the National Bank, by expanding or contracting its balance sheet through instruments for providing or withdrawing liquidity, including notes issuing, regulates the level of liquidity in the financial system and affects the borrowed capital cost *(Chart 2.3)*. The indicated operations fulfillment is part of the percentage channel of the transmission mechanism.

Chart 2.3 ***Along with the growth of government debt, the National Bank increases the volume of excess liquidity withdrawal***

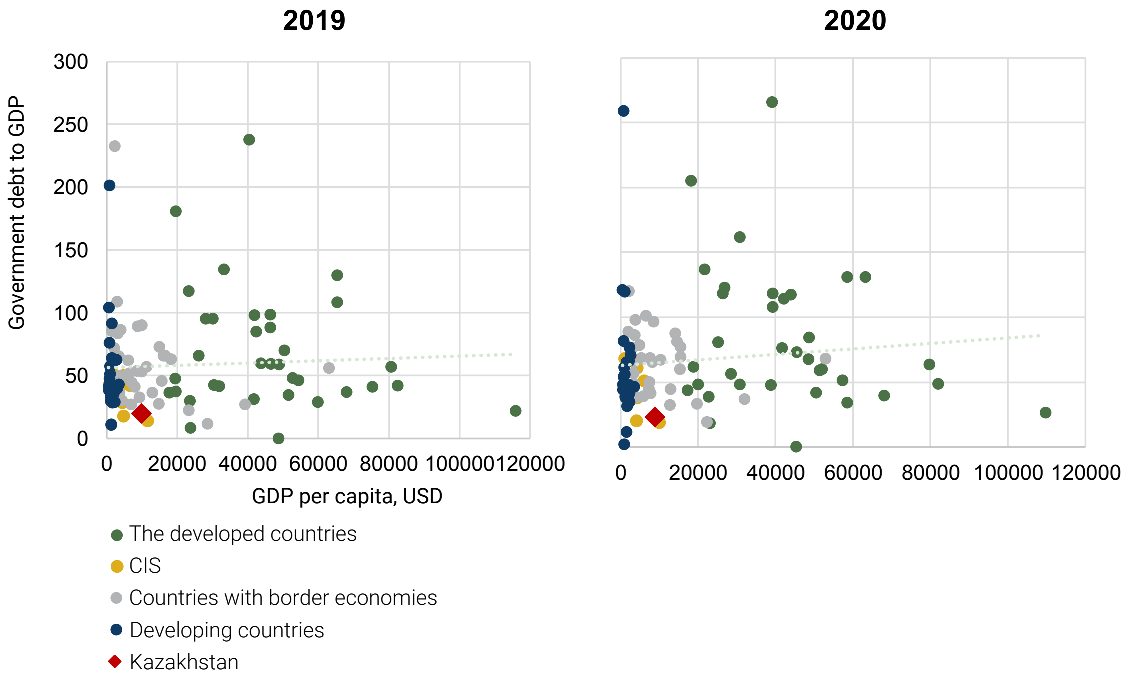


Source: *MF RK*

Note: *Government debt includes the total government debt and the debt of local executive bodies of the Republic of Kazakhstan*

The government debt of Kazakhstan is at a lower level in relation to the other predominantly developed countries *(Chart 2.4)*, theoretically has room for fiscal growth, but the fact that the state has implicit risks in the form of liabilities of quasi-state companies does not imply the correctness of the statement about the prospects for increasing public debt. In the context of low liquidity of the GS market, a potential increase in the government debt creates risks of an increase in the concentration of its holders, as well as an increase in rates, which will limit the efficiency of interest rates transmission. On the other hand, financing the budget deficit at the expense of future generations in the form of transfers also requires a certain approach to managing long-term risks. At the moment, the Government of the Republic of Kazakhstan and the National Bank are working on the development and implementation of the countercyclical budget rule. It is assumed that this rule will set limits on the size of the guaranteed transfer from the NF RK, at a level not exceeding the amount of receipts to the NF RK from the oil sector at the conservative oil price - the cut-off price, and will also stabilize government spending, limiting its growth rates at the level of long-term growth of real GDP, increased by the target inflation rate. Thus, the countercyclical fiscal rule will reduce the dependence of the fiscal policy on the oil price cycle and will help to improve budget discipline, stabilize government spending and, accordingly, strengthen the saving function of the NF RK.

Chart 2.4 ***Government Debt to GDP in 2019 and 2020 by country***



Source: *IMF*

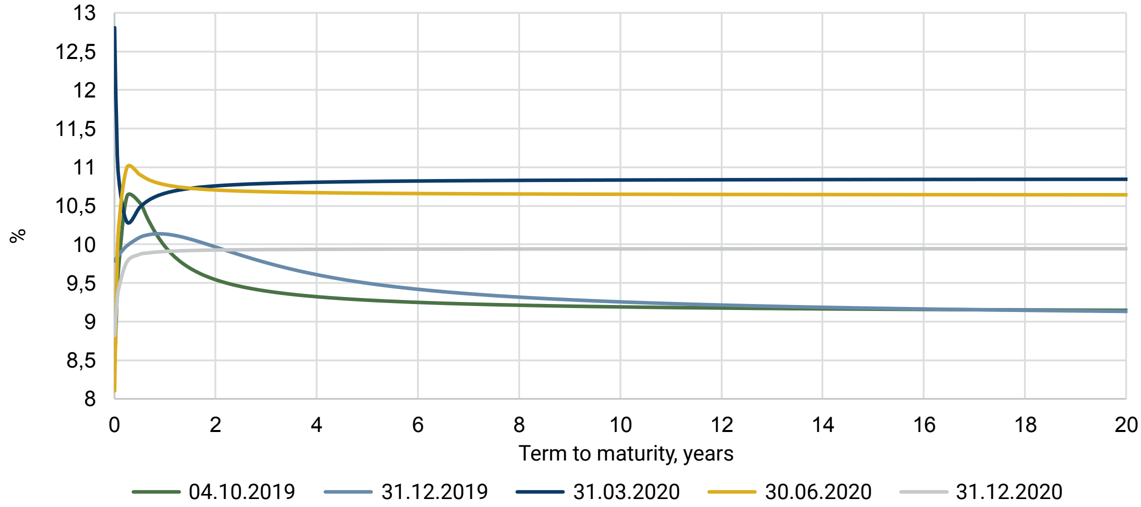
In order for the NF RK to fulfill the saving function, the irreducible balance in the amount of at least 30% of the forecast GDP value is established in the Concept for the formation and use of the National Fund of the Republic of Kazakhstan. At the same time, in recent years, the resources of the NF RK have been tending to approach the irreducible balance.

According to the Forecast of the socio-economic development of the Republic of Kazakhstan for 2021-2025, by the end of 2023, the resources of the NF RK will amount to 30.8% of GDP, approaching the level of the irreducible balance. In case of non-compliance with the limit on the irreducible balance, the amount of transfers from the NF RK must be reduced by an appropriate amount. The GS market development will be a timely measure to prevent a further decrease in the resources of the NF RK.

2.2 Government securities market of the Ministry of Finance of the Republic of Kazakhstan

In November 2019, the Kazakhstan Stock Exchange (KASE) switched to a new methodology for the official assessment of GS (the official risk-free yield curve). The transition from the GS assessment according to the old methodology to the new assessment methodology was carried out gradually over the course of a month. In the new methodology, the applied parametric model interprets the parameters as the ones related to the levels of long-term interest rate, short-term interest rate and slope of the curve. The observation sampling method allows to automatically adapt the model to changes in the structure and degree of liquidity in the market. Thus, the new curve model and its results have become more transparent, and its explanatory power better satisfies the communication and interpretation needs of financial markets and professional participants.

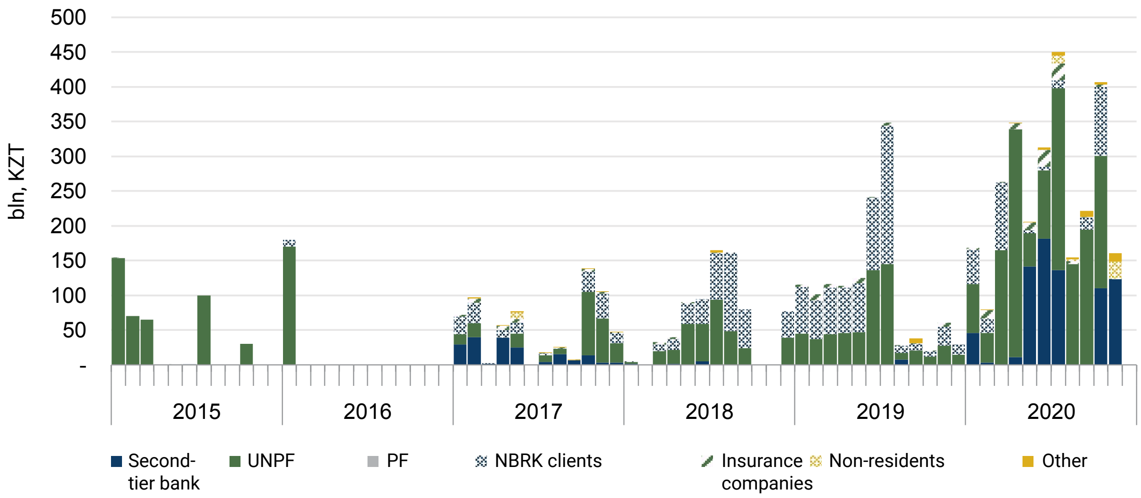
Chart 2.5 ***The yield curve for the periods of three years and more continues to be formed mainly by non-market investors***
Government securities yield curve (spot)



Source: *KSE*

The negative slope of the GS yield curve was declining during the second half of 2019. The reaction to the rate increase in March 2020 briefly exacerbated the negative slope, but by the end of 2020, the positive slope recovered. The shape of the curve changed only at the short-term end, in response to the monetary policy changes amid worsening global sentiment associated with the pandemic. The shape of the curve in the medium and long-term segment of the curve continues to remain flat *(Chart 2.5)*. Improving the active public debt management policy remains a priority for the formation of a risk-free yield curve that reflects the benchmark for the corporate sector and the interest rate transmission channel of the monetary policy.

Chart 2.6 ***Banks showed demand for new placements of short-term securities of the MF RK***
Volumes of the MF RK government securities placement in the context of holders

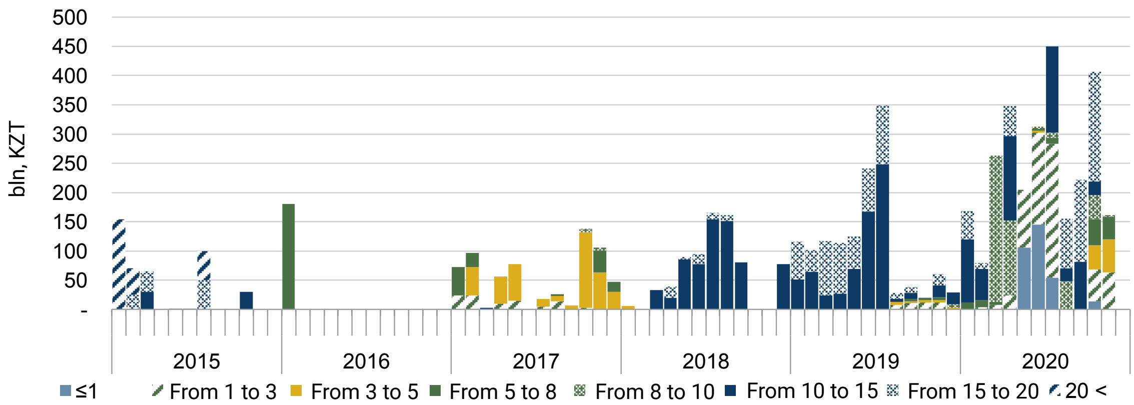


Source: *CSD*

Note: *1) The GS, purchased by a large bank in July 2017 as part of a deal to rehabilitate it, are excluded from the sample; 2) "Others" include the holders such as broker-dealers, investment funds, individuals, government organizations, other legal entities and own assets of pension funds; There were no placements in December 2020; IO stands for insurance organizations*

Despite the relatively high burden of the MF RK for the repayment and debt servicing for the next 5-6 years, the MF RK began to place securities with a maturity from 1 to 3 years in 2020, which was associated both with the need to cover the high budget deficit, as well as with the limited investor base, where, besides the UPSF and the funds managed by the NBRK, the other financial institutions practically did not have a long-term investment horizon *(Chart 2.6)*.

Chart 2.7 ***The MF RK increases the investor base, expanding maturities of the GS***
Volumes of the MF RK government securities placement in the context of maturities

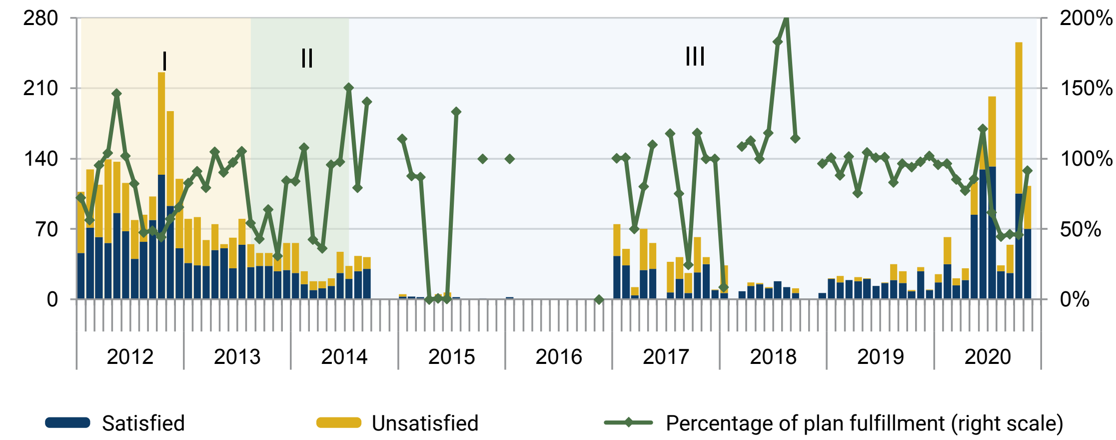


Source: *CSD*

Note: *The GS, purchased by a large bank in July 2017 as part of a deal to rehabilitate it, are excluded from the sample. There were no placements in December 2020*

In 2020, there was a trend towards an increase in demand in the GS market of the MF RK *(Chart 2.7)*. This was due to the resumption of the MEKKAM issues (the discount GS of the MF RK with a maturity of up to 1 year), as well as additional placements of GS with a maturity of up to 3 years, which turned out to be attractive for STBs and intensified their participation. By placing additional annual securities, the MF RK, in fact, acquired short-term liabilities. At the same time, in order to maintain demand for GS of the MF RK, the NBRK stopped issuing annual notes from Q3 2020. Thus, more than two-thirds of GS purchased by STBs were with the maturities of up to 3 years.

Chart 2.8 A. ***Growth in the number of participants' bids as an indicator of increased interest and market engagement***

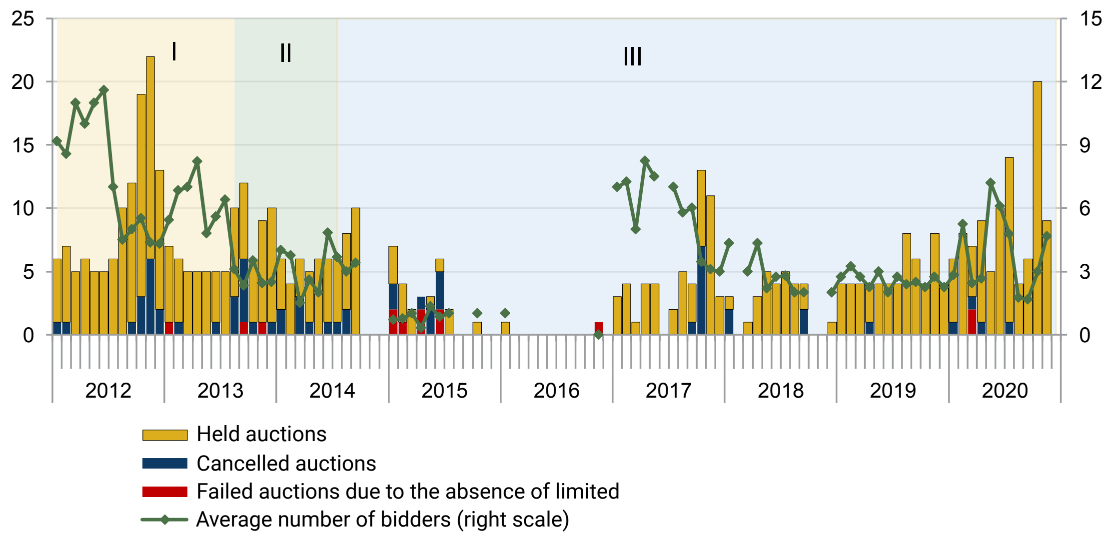


Source: *KSE*

Note: *1) The GS, purchased by a large bank in July 2017 as part of a deal to rehabilitate it, are excluded from the sample; 2) The percentage of plan fulfillment is calculated as the ratio of the actually placed volume of GS to the announced one; 3) I - the period of private accumulative pension funds; II - the period of unification; III – the UPSF period*

The increase in the number of satisfied bids and the maintenance of the plan fulfillment rates at a high-level indicate an increased interest of the market participants *(Chart 2.8 A)*. Nevertheless, the issue of increasing market liquidity continues to be one of the key issues for further development. There were no GS placements by the Republic of Kazakhstan in December 2020.

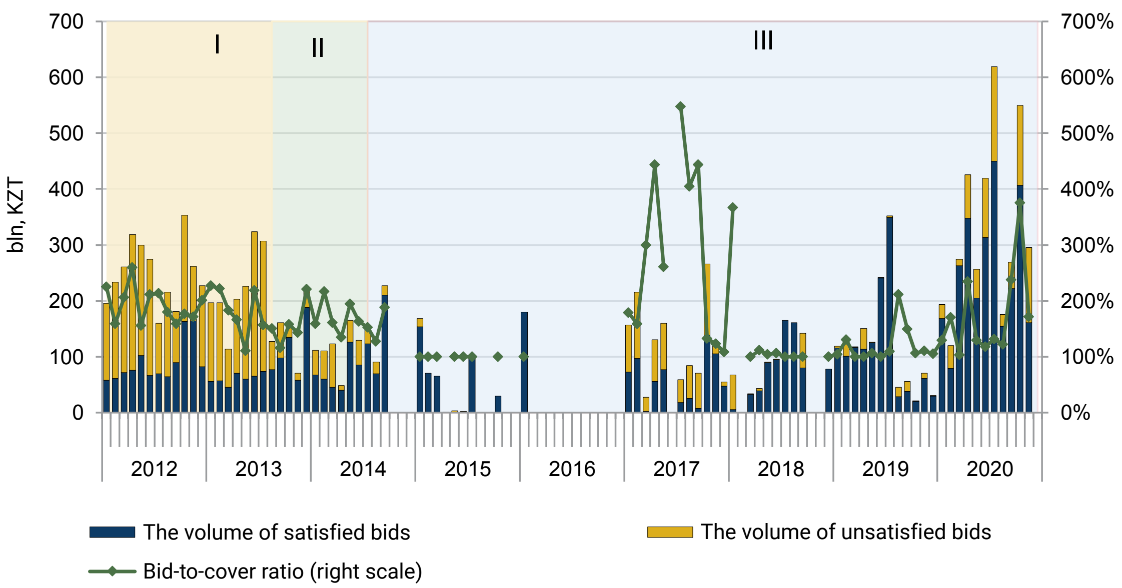
Chart 2.8 B. ***Results of auctions***



Source: *KSE*

The *chart 2.8* B reflects the dynamics of growth in the average number of bidders, auctions held, and also indicates a decrease in the frequency of auctions cancellation, which is a positive development.

Chart 2.8 C. ***Growth in the volume of participants' bids as an indicator of increased interest and market involvement***



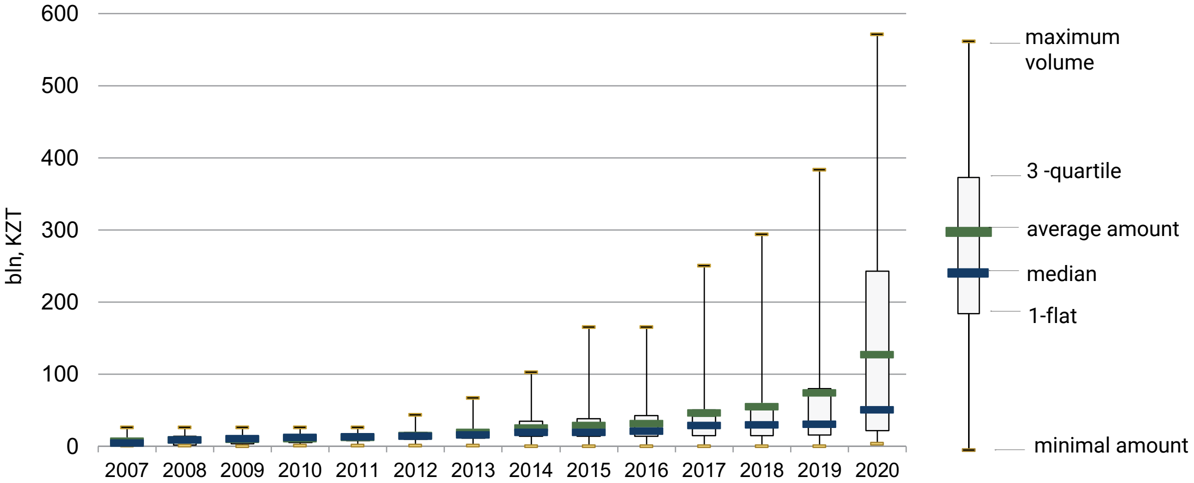
Source: *KSE*

Note: *1) GS purchased by a large bank in July 2017 as part of a deal to rehabilitate it; 2) Bid-to-cover ratio for the month is calculated as the weighted average (according to the announced volume of placement) of the ratio of the number of all active bids to the satisfied bids for each auction of placement of the MF RK GS; 3) To calculate the bid-to-cover ratio, only the data on the number of active bids in the completed biddings were taken into account; 4) I - the period of private accumulative pension funds; II - the period of unification; III – the UPSF period*

In the auctions held in 2018, the demand was fully satisfied *(Chart 2.8 C)*, in 2019 the demand was largely satisfied, 2020 shows a significant increase in demand, as well as an increase in unsatisfied bids, including the auctions where the planned volume of attraction was not achieved. It suggests that the MF RK continues to target the rate at the auctions, and not to attract the planned volume, as is the case in world practice. This practice discourages market pricing and generally distorts the very concept of cut-off price. For the MF RK, the assessment of the effectiveness of the debt placement should first of all take into account the fulfillment of the plan in terms of the volume and timing of the placement, while the cost of borrowing is usually estimated by an independent placement agent. This approach is widely used to comprehensively improve the efficiency of public debt and solve the problem of interest conflicts. The effectiveness of the public debt, which in fact is both the main fiscal and key monetary instrument, determines the development and stability of the entire financial sector and the economy as a whole.

Within the framework of reducing the fragmentation of the issues, the Ministry of Finance started to optimize the placements of state debt, which is a positive factor in the development of the GS market.

Chart 2.9 ***The average volume of the MF RK GS issues with a fixed coupon***

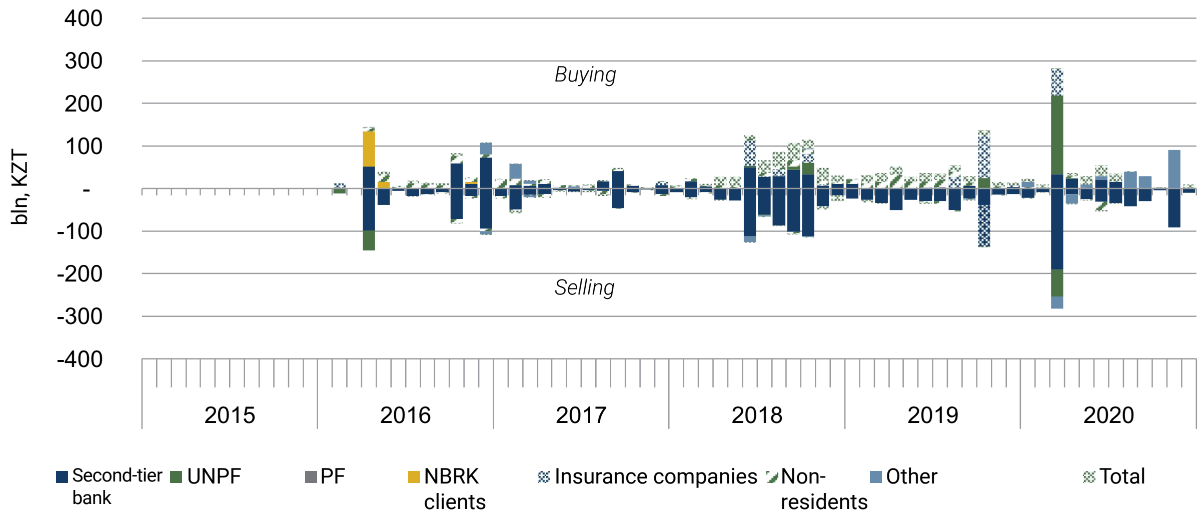


Source: *CSD*

Note: *The GS, purchased by a large bank in July 2017 as part of a deal to rehabilitate it, are excluded from the sample*

Thus, there was a trend towards a gradual increase in the average volume of issuance, as well as the median volume of issuance *(Chart 2.9)*. The most significant growth occurred in the last 4 years: the average volume growth rate was 305%, and the median one was 139%. The minimum volume at the end of 2020 increased to 3.7 billion tenge compared to 100 million tenge at the end of 2019. The maximum volume also showed a significant growth, amounting to 570.9 billion tenge in 2020 compared to 383.7 billion tenge a year earlier.

Chart 2.10 ***Volumes in the secondary market of the MF RK GS***



Source: *CSD*

Note: *"Others" include the holders such as broker-dealers, investment funds, individuals, government organizations, other legal entities and own assets of pension funds; IO stands for insurance organizations, PF stands for pension funds*

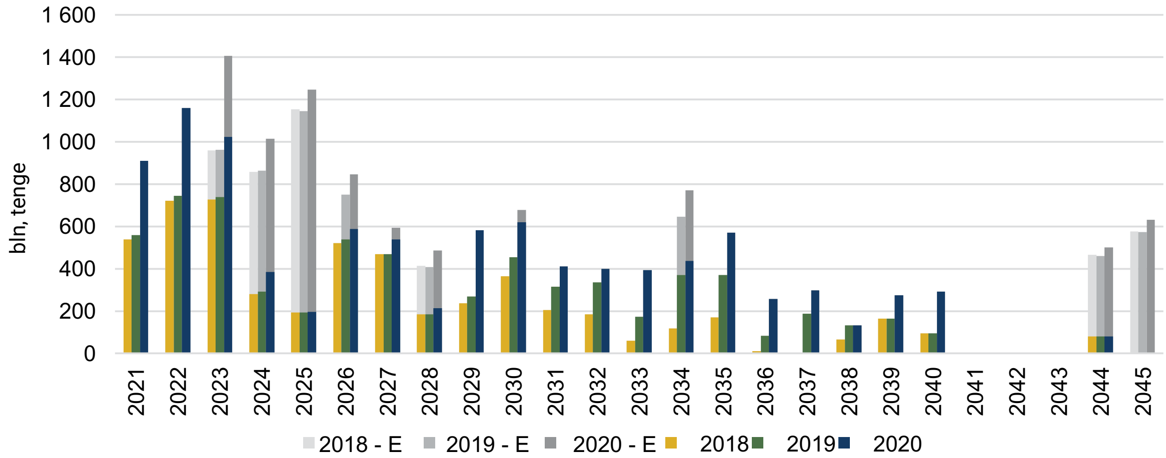
The year 2020 showed an increase in activity in the secondary market for the MF RK GS. Trading activity was especially active in Q2 and at the beginning of Q3 *(Chart 2.10)*. This was due to the emergence of the SSIF 's need for liquid funds in connection with the need to make social payments in case of income loss due to the introduction of restrictive quarantine measures. Thus, the main seller in the secondary market for the MF RK GS was the State Fiscal Service. Second-tier banks acted as buyers of 40.4% of this tranche, whereas 27.4% fell to UPSF and 15.4% to non-residents.

As of January 1, 2021, social payments for the period of the state of emergency were assigned to more than 4.6 million people in the amount of 322.8 billion tenge, and during the quarantine period, the payment was assigned to 2.4 million people in the amount of 153.5 billion tenge, which in total amounted to 476.3 billion tenge.

2.3 Time structure of repayment and structure of bondholders of the MF RK

In 2019, the main debt repayment amounted to 3.37% of non-oil revenues to the budget, and in 2020 it increased to 4.23%. Also, according to the projected values of revenues from the draft national budget for 2021-2023. in 2021, the debt burden on the non-oil budget will reach 9.78%, and in 2022 – 11.05%.

Chart 2.11 ***The time structure of bond redemption of the MF RK remains uneven***
Repayment schedule of the main debt on the MF GS (including Eurobonds) as of the end of the period



Source: *CSD, NBRK calculations*

Note: *1) E stands for the obligations of the MF RK on payment of Eurobonds; 2) the amount of the main debt repayment on Eurobonds was converted into tenge at the official rates at the end of the period*

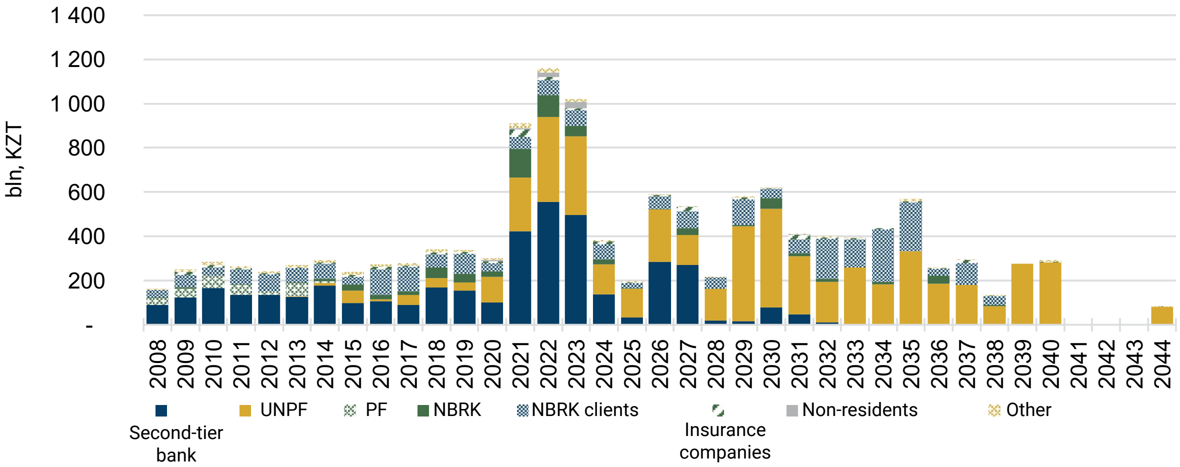
Since 2018, in order to include the GS in the international global bond indices, the MF RK began to enlarge individual issues, adding new debt to them. When choosing individual issues, the maturity schedule optimization factor was taken into account, placing additional issues in the segment of the yield curve for more than 10 years. Nevertheless, the repayment schedule of the MF RK main debt remains unbalanced *(Chart 2.11)*. Thus, a high concentration of the MF RK main debt repayment in the coming years was formed mainly due to the repayment of Eurobonds and recently issued short-term bonds of the MF RK. At the same time, it should be noted that adhering to the principles of active public debt management will allow to smooth out the risks caused by a high concentration of repayments by expanding the possibilities for debt refinancing, with a more even distribution of its servicing.

For a long time, the preference for external sources of financing due to the low cost of funding and the possibility of using the resources of the NF RK determined the secondary role of attracting domestic public debt in covering the budget deficit. The choice of the source of financing the deficit was rather based on the cost of attraction. Thus, the focus on cost reduction only pushed the tasks of optimizing the repayment structure and improving the liquidity of the domestic GS market to the background. Considering that the public debt market is the main link in the transmission of monetary policy, it has significantly been hampering the development of the entire financial market of the country.

In practice, a balanced and predictable time structure of public debt servicing is the main indicator of the long-term efficiency in planning and managing public debt, especially in economies with practically permanent budget deficits. This indicator is one of the main benchmarks for external and market long-term investors in sovereign debt. Effective and predictable planning of the time structure of liabilities in the medium term increases the investor confidence, which means demand reduces volatility and the influence of the conjunctural factor on the primary market rates. Under the permanent budget deficit, planning should also include borrowing volumes to optimize the existing structure of issues in circulation. Through comprehensive optimization, it is possible to solve not only the problem of the unevenness of the public debt repayment schedule, but also the problem of its high fragmentation. High fragmentation of public debt is determined by a large number of small issues with close maturities, which introduces a natural limitation on the number of holders of one issue and, consequently, on its turnover. Such issues are ineffective in terms of their function in assessing the yield curve and transmission of interest rates. High fragmentation of government debt is the main reason for the low liquidity of the GS market and, accordingly, its low pricing efficiency.

In international practice, the most common forms of optimizing the structure of government debt are buyback auctions, securities buyback in the over-the-counter secondary market, conversion and refinancing of debt through the exchange of ineffective issues for more liquid benchmark GS (on-the-run), new borrowings are made mainly through additional placement of effective issues.

Chart 2.12 ***Repayment schedule for the tenge GS of the MF RK by holders***



Source: *CSD, NBRK calculations*

According to the distribution of debt repayment in 2021-2023, about half of the Government's internal debt falls on the second-tier banks *(Chart 2.12)*, which have a short-term investment horizon. To attract demand for long-term securities of the MF RK, it will be necessary to take into account the market pricing in this segment. Since 2016, there has been an increase in the share of non-resident holders of GS. In May 2021, the share of non-residents reached its historic highs of 5.39% or 800.8 billion tenge.

Table 2.1. ***The share of non-residents in the structure of GS of the Republic of Kazakhstan***

Date	Non-residents	In total	Share (%)
2008	4 069 299 900	1 150 512 273 700	0,35
2009	55 931 951 800	1 770 153 697 758	3,15
2010	41 276 786 000	2 588 485 581 670	1,59
2011	7 637 462 800	2 607 460 229 091	0,29
2012	24 749 896 000	3 098 715 745 600	0,70
2013	2 253 545 000	3 633 490 099 600	0,06
2014	122 740 000	4 273 433 667 100	0,01
2015	670 248 572	4 967 447 299 000	0,01
2016	75 352 388 200	7 021 514 324 680	1,07
2017	151 914 129 200	9 198 163 227 960	1,65
2018	125 190 875 598	10 132 953 345 980	1,23
2019	159 736 402 434	11 213 390 920 400	1,42
2020	430 011 575 925	14 284 753 458 040	3,10
January 2021	604 209 525 088	14 895 240 384 330	4,05
February 2021	782 041 541 651	15 482 324 074 540	5,05

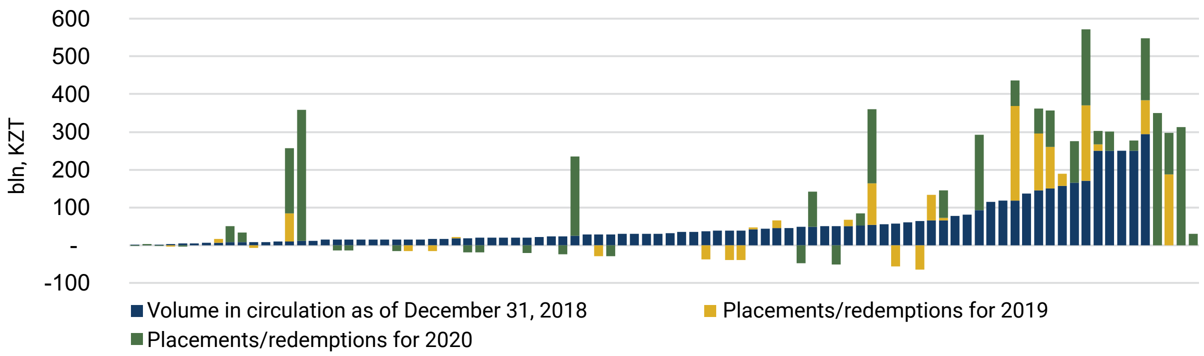
Date	Non-residents	In total	Share (%)
March 2021	799 763 138 634	15 440 566 573 010	5,18
April 2021	702 290 933 864	15 303 502 417 220	4,59
May 2021	800 810 207 594	14 859 629 299 050	5,39

***Source: CSD**, NBRK calculations*

***Note: Value**s in tenge*

The improvement of the market clearing infrastructure to the world standard within the international line of the Central Securities Depository with Clearstream, as well as the incentive program introduction for market-makers as part of the GS inclusion in international indices contributed to the growth of demand from international investors. Thus, in order to increase the attractiveness of the local GS market, since 2018, the NBRK and the MF RK have been working to include the Kazakhstani GS in the index of government bonds of developing countries JP Morgan (GBI-EM). In this direction, the MF RK, in order to comply with the conditions for the minimum size of the issuance, enlarged certain issues with maturities of 10, 14 and 15 years through additional placements.

Chart 2.13 ***Three issues reached the target in terms of circulation volume***
GS issues with a fixed coupon, ranked by volume



***Source:** CSD*

***Note:** The GS, purchased by a large bank in July 2017 as part of a deal to rehabilitate it*

Thus, in 2020, the target volume of 1 billion US dollars was achieved by three issues of the MF RK GS *(Chart 2.13)*.

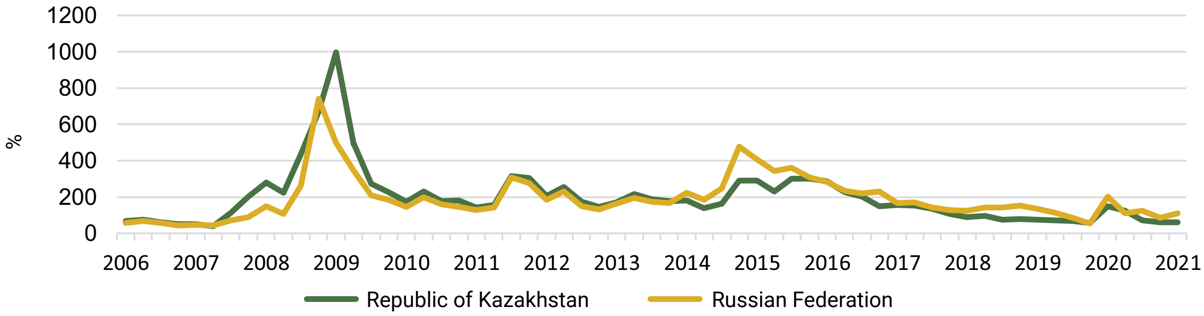
Box 3. Stimulating the market-maker institution in order to develop the market

The institution of market-makers began to develop in the GS market since June 2019. Market-makers, by placing double quotes and fulfilling the obligation on the volume of mandatory quotes for buying and selling, increase the tradability and investment attractiveness of securities for investors. The activity of a market-maker in the GS market of the Republic of Kazakhstan is carried out (at his choice) in accordance with the terms of three schemes, where the greater the mandatory volume of quotations, the narrower (lower) the supported spread. Also, the minimum number of GS issues for which the market-maker maintains quotes is 5 issues with maturities: up to 360 days, from 361 days to 1080 days, from 1081 days to 1800 days, from 1801 days to 2521 days, and from 2521 days up to 3600 days. For this, the market-maker, regardless of the chosen scheme, is exempted from paying KASE commission fees on securities purchase and sale deals, for which he fulfills the market-maker’s obligations. Additionally, for GS, where he is not a market-maker, he pays only 50% rate on membership fees, KASE exchange and clearing fees.

Thus, as of the end of December 2020, three market-makers operate in the GS market for 15 issues of the MF RK GS. The choice of GS issues by the market-makers was based on the maturity, which would be included in the maturity range, as well as on the volume of issuance in his portfolio, which would be sufficient to maintain the buy and sell quotes in accordance with the KASE Rules.

In 2020, the MF RK continued to practice financing the budget deficit through the placement of Eurobonds. Thus, in September 2019, the MF RK placed two tranches of Eurobonds: 500 million euros with a maturity of 7 years and a rate of 0.6%, as well as 650 million euros with a maturity of 15 years and a rate of 1.5%. In September 2020, the MF RK fulfilled three issues of ruble GS in the amount of 40 billion rubles, the placement of which was carried out on the Moscow Stock Exchange (39.5 billion rubles) and AIX (0.5 billion rubles). The premium of the GS issued to the yield curve of the federal loan bond (FLB) amounted to 40 bp. for the issuance with a maturity of 3 years and a coupon rate of 5.4%, 51 bp. for the issuance with a maturity of 7 years and a coupon rate of 6.5% and 55 bp. for the issuance with a maturity of 10 years and a coupon rate of 7%.

Chart 2.14 ***Dynamics of quotes for 5-year credit default swaps in the Republic of Kazakhstan and the Russian Federation***

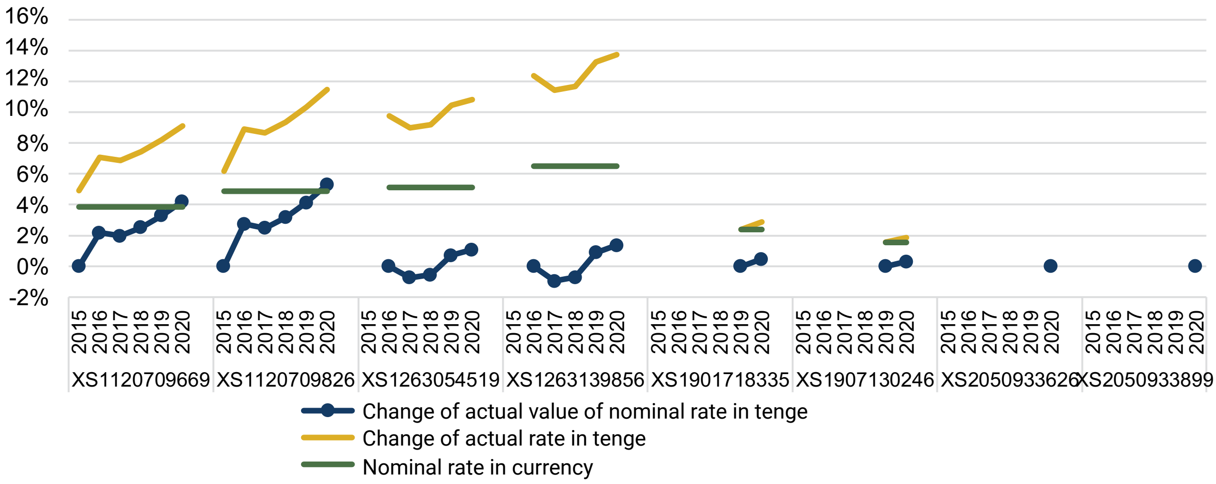


Source: *Bloomberg, NBRK calculations*

Note: *As of the end of Q3 2020, the value of the sovereign CDS of the Russian Federation amounted to 123 bp, CDS of the Republic of Kazakhstan - 73 bp.*

The fairly high spread in relation to the FLB curve reflects the discount for the illiquidity of the ruble GS of the MF RK compared to FLB securities, despite the lower rates of credit default swaps (CDS) in Kazakhstan *(Chart 2.14)*.

Chart 2.15 ***The choice of the funding source was based on the illusory cost of attracting***
Actual cost of servicing Eurobonds in tenge



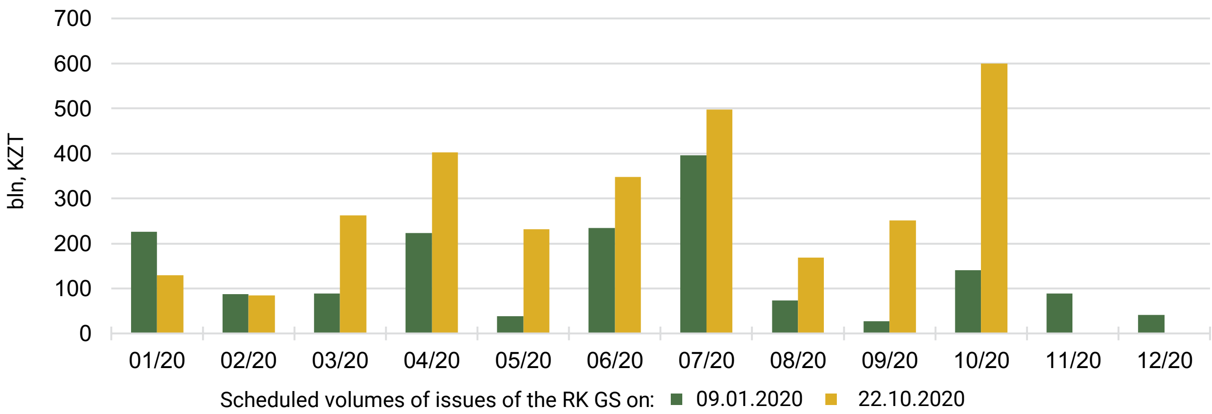
Source: *NBRK, calculations by NBRK*

Note: *The effective interest rate is defined as the ratio of debt servicing to its par value, taking into account the exchange rate at the time the funds were transferred. The chart shows the Eurobonds denominated in USD and EUR*

In addition to the exposure to foreign exchange risks, the realization of which increases the actual cost of external resources, an orientation only towards reducing the nominal value of external debt can lead to an increase in the country's economic dependence and a narrowing of the fiscal space.

One of the reasons for the lack of demand in the domestic primary market may be the absence of a "firm supply" in the auctions for the GS placement. The historically formed absence of a stable schedule for issuing the MF RK GS by auction dates, placement volumes, circulation periods and types of GS, as well as non-compliance with the issuance schedule, increased uncertainty in the market, reduced the transparency of decisions and the confidence of potential investors in the policy of public debt management, which was one of the factors in the market demand decline in the Republic of Kazakhstan. Thus, within the framework of the Agreement between the Government of the Republic of Kazakhstan and the NBRK on the coordination of macroeconomic policy measures for 2019 to stimulate the competitive demand and increase the predictability of policy, the Government of the Republic of Kazakhstan ensured the regular publication of the GS issuance schedule. At the same time, against the background of the forced expansion of expenditures and the budget deficit under the pandemic, changes were made to the GS issuance schedule for 2020, which increased the volume of the planned domestic debt placement from 1.67 trillion tenge up to 3.02 trillion tenge *(Chart 2.16).*

Chart 2.16 ***Revision of the volume of issues during the year is significant***



Source: *KSE*

Note: *The scheduled volumes for 10/22/2020 significantly exceed the original plans for the year. The dates mean the dates of the schedules of the RK GS issuances*

It is worth noting that GS placements beyond the regular schedule reduce the predictability and investor confidence. It narrows the investor base and affects the borrowing efficiency for the issuer.

The GS market, as an instrument of financing the budget deficit, can contribute to the task of accumulating sovereign assets by reducing the attraction of transfers from the NF RK, as well as reducing the country's exposure to market risks by reducing the share of debt in foreign currency.

In order to increase the confidence of market participants, it is necessary to continue regulating the debt management policy, which ensures transparency, predictability and fairness of the conditions for GS placing in the primary market. In addition, one of the prerequisites for increasing liquidity is the institutional investor market development. One of the solutions is to transfer pension savings to private management companies for the investment management, which will create a more competitive environment in the securities market.

III

Residential real estate market

In Q2 2020, the number of sales and purchases fell sharply due to the introduction of countermeasures against the coronavirus infection, but after the relaxation of restrictive measures, it quickly recovered. Large growth rates in the number of transactions are not supported to a greater extent by the growth of household income. At the same time, socially-directed government support programs stimulate demand, but distort market pricing in the housing market and crowd out market mortgage lending. Currently, the residential real estate market is heavily dependent on government subsidies.

The main risk factor is represented by negative shocks that reduce the population's incomes, which can limit the capability of people to purchase housing. These risks are exacerbated by the fact that prices and the number of transactions in the residential real estate market are supported by short-term fiscal stimuli and are out of touch with their fundamental values.

For the development of a stable housing market in the long term, it is necessary to switch to more targeted support for socially vulnerable groups of the population. With regard to the rest of the population, it is necessary to switch to market mechanisms, which will make it possible to a greater extent to link the dynamics of the population's income with the pricing in the real estate market. However, it should be borne in mind that the complete termination of all programs may lead to a decrease in prices in the residential real estate market, which may negatively affect the financial stability through the cost of collateral.

Lower real estate prices will also directly affect construction companies and reduce the number of people employed in this area of the economy, which will negatively affect overall consumption and demand in the economy.

Most of the demand for housing is conditioned by the population migration from the village to the city in terms of urbanization process. The proportion of the population living in rural areas remains high enough to represent future demand for jobs and urban housing. As a result, raising the level of education and qualifications of the rural population should be one of the priority tasks, which in the long term can provide a stable inflow of skilled labor to cities and, as a consequence, demand in the residential real estate market.

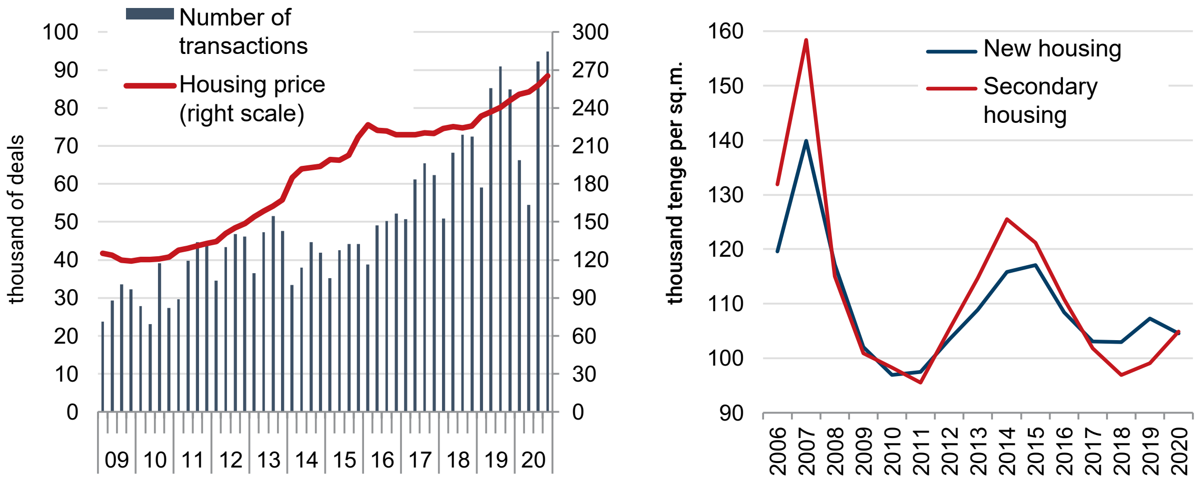
3.1 Activity in the residential real estate market

In the first half of 2020, activity in the housing market decreased due to the introduction of restrictive measures to counter the spread of COVID-19, which mainly occurred in Q2 2020. Prices in the housing market in nominal terms have been increasing since 2019 *(Chart 3.1)*. Prices in the secondary market in real terms increased by 8.3% over 2 years, and by 1.6% in the primary market.

The decline in activity peaked in April and May 2020. In general, in Kazakhstan, the number of transactions in Q2 decreased by 36% compared to last year and amounted to 54,542. The largest decline occurred in the cities of Almaty and Nur-Sultan, where the quarantine regime was stricter, and amounted to 44% and 46%, respectively. In the primary market, new housing prices showed positive dynamics in 2019 in nominal and real terms. The growth in 2020 was moderate in nominal terms and declined in real terms. In the secondary market, nominal and real prices for secondary housing began to grow in 2019, when the Baspana Hit program of preferential mortgage lending for secondary housing was introduced. The capability of the population to acquire secondary housing has increased, which contributed to the accelerated growth rate of prices in the secondary market in 2020.

Chart 3.1 ***Activity in the residential real estate market is recovering after quarantine***

The number of transactions and prices in the housing market *Real house price index*



Source: BNS ASPR *RK*

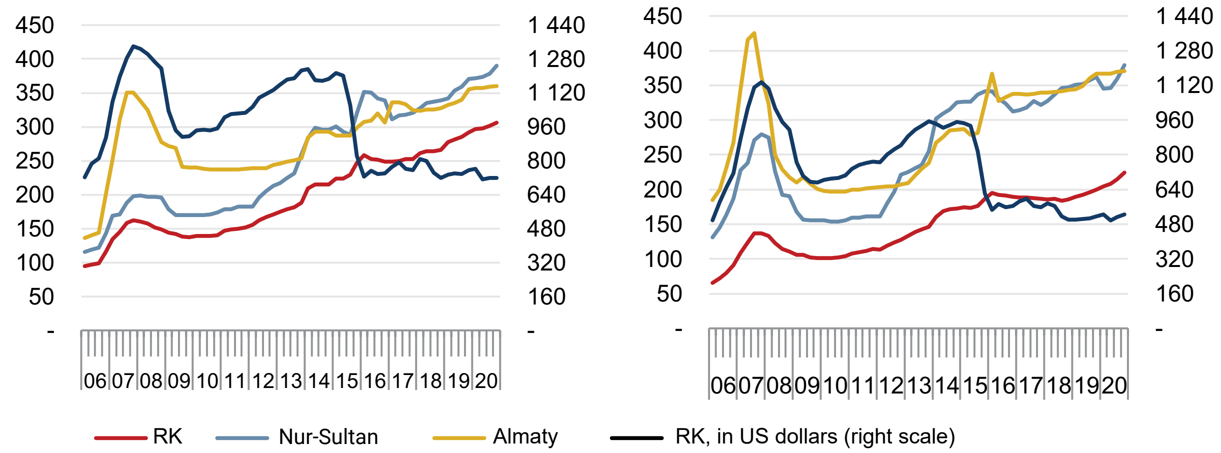
Note: *Housing prices are calculated as the average of the average prices for new and comfortable housing. The real house price index is calculated as the market price in nominal terms, adjusted for inflation with a base with average prices for 2009-2012. The number of purchase and sale transactions in Q4 2012, due to the lack of data, was calculated by extrapolating 4 quarters of 2011 and 2013*

In the primary and secondary markets, housing prices in dollar terms decreased due to the weakening of the tenge in Q1 2020 *(Chart 3.2)*. In Nur-Sultan, prices for new housing remained at the same level during the quarantine period, however, prices in the secondary market fell in Q1 and Q2, after which they rose back. In 2020, prices for primary housing in the Republic of Kazakhstan increased by 4.8%, for secondary housing - by 13.9%.

Prices in the rental housing market are growing rapidly, the highest growth was observed in the city of Nur-Sultan *(Chart 3.3)*. Rental prices in the city of Almaty have not increased since the end of 2019. Prices in the rental housing market to a greater extent reflect the relationship between household income and pricing. Thus, at the end of 2020, the growth in rental prices in the Republic of Kazakhstan amounted to 9.3%. In the city of Nur-Sultan, the growth in rental prices was 3.5%, while prices for primary and secondary housing increased by 5.1% and 5.5%, respectively. In the city of Almaty, the growth in rental prices was 0.5%, while prices rose by 0.8% and 1.3%, respectively.

Chart 3.2 ***Prices in the primary market remain stable, while in the secondary market they are growing rapidly***

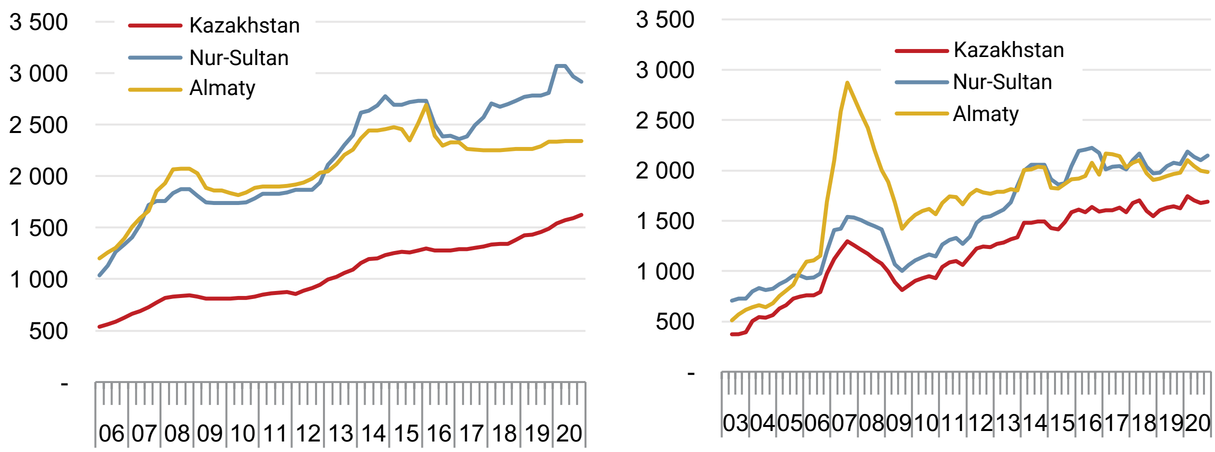
Prices in the primary market, thous. tenge per sq. m. *Prices in the secondary market, thous. tenge per sq. m.*



Source: *BNS ASPR RK, NBRK calculations*

Chart 3.3 ***Prices in the rental housing market are higher than the monthly mortgage payment for mortgage loans in the primary market***

Rental prices, tenge per sq. m per month | *Mortgage payment for primary housing, tenge per sq. m per month*



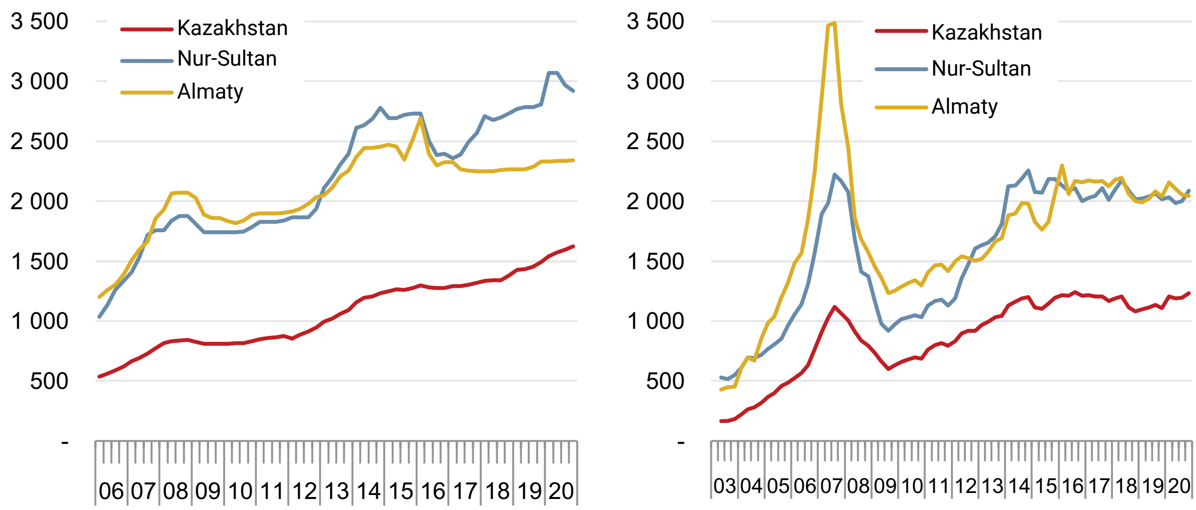
Source: *BNS ASPR RK, banks reporting, NBRK calculations*

Note: *The monthly mortgage payment was calculated based on housing prices per sq. m. with an initial payment of 30% and a period of 20 years*

In Almaty and Nur-Sultan, it is more profitable for the population to take a mortgage for primary housing than to rent, since the mortgage payment is lower than the monthly rental price of comfortable housing. In general, in Kazakhstan, it is more profitable for the population to take out a mortgage for secondary housing *(Chart 3.3)*. Thus, on average, at the end of 2020, the rental price per month was 1,624 tenge per sq. m. in the Republic of Kazakhstan, 2341 tenge per sq. m. in Almaty and 2919 tenge per sq. m. in Nur-Sultan. At weighted average mortgage rates for a period of 20 years and an initial payment of 30%, the estimated monthly payment for 1 sq. m. in the primary market in the Republic of Kazakhstan amounted to 1,686 tenge, 1983 tenge in Almaty, and 2,148 tenge in Nur-Sultan. In the secondary market, the estimated monthly mortgage payment at the end of 2020 in the Republic of Kazakhstan amounted to 1,236 tenge per sq. m., 2,043 tenge per sq. M. in Almaty and 2088 tenge per sq. m. in Nur-Sultan *(Chart 3.4)*.

Chart 3.4 ***The monthly payment on mortgages in the secondary market at weighted average rates is lower than payment on rent***

Rental prices, tenge per sq. m per month | *Mortgage payment for secondary housing, tenge per sq. m per month*



Source: *BNS ASPR RK, banks reporting, NBRK calculations*

With the expansion of the market share of government-subsidized mortgages, weighted average mortgage rates have dropped from 9.5% to 7.5% in 2020 since 2018. Thus, the monthly mortgage payment remained the same when the prices for rent and home purchases were rising.

With a decrease in state support, the demand for housing on the part of the population who will purchase the first housing will decrease and move to the rental housing market, which will increase the profitability of housing, increasing the investment attractiveness for people who have already solved their housing problems.

3.2 Government support

The volume of issued mortgage loans has been growing rapidly since 2016, and at the end of 2020 amounted to 16.23% of the total volume of loans from STBs *(Chart 3.5)*. The rapid growth of the mortgage portfolio was not associated with the growth of household incomes, as a result of which there are risks for the financial system. The main stimulus for the growth of mortgage loans is mortgage lending support programs. Thus, the weighted average rates on mortgage loans of second-tier banks in the economy decreased from 9.5% at the beginning of 2018 to 7.5% at the end of 2020.

State support is a short-term factor affecting the capability of citizens to purchase mortgaged housing. Without long-term factors such as an increase in real incomes of the population and a decrease in the economy interest rates, which is difficult with expanding fiscal incentives, there is a risk of a decrease in prices and the number of transactions in the residential real estate market in the long term. A significant decrease in the value of mortgaged real estate will negatively affect the issuance of loans to the economy, as well as the ability of banks to sell the pledged assets.

Concessional lending in the mortgage market is crowding out the market supply. Since 2016, the volume of mortgage loans issued has grown almost 5 times, mainly due to the 7-20-25 and Baspana Hit state support programs and the Otbasy Bank housing savings system. At the end of 2020, the share of mortgage loans issued at the market rate was less than 1%.

Chart 3.5 ***The mortgage market is growing rapidly due to concessional lending***

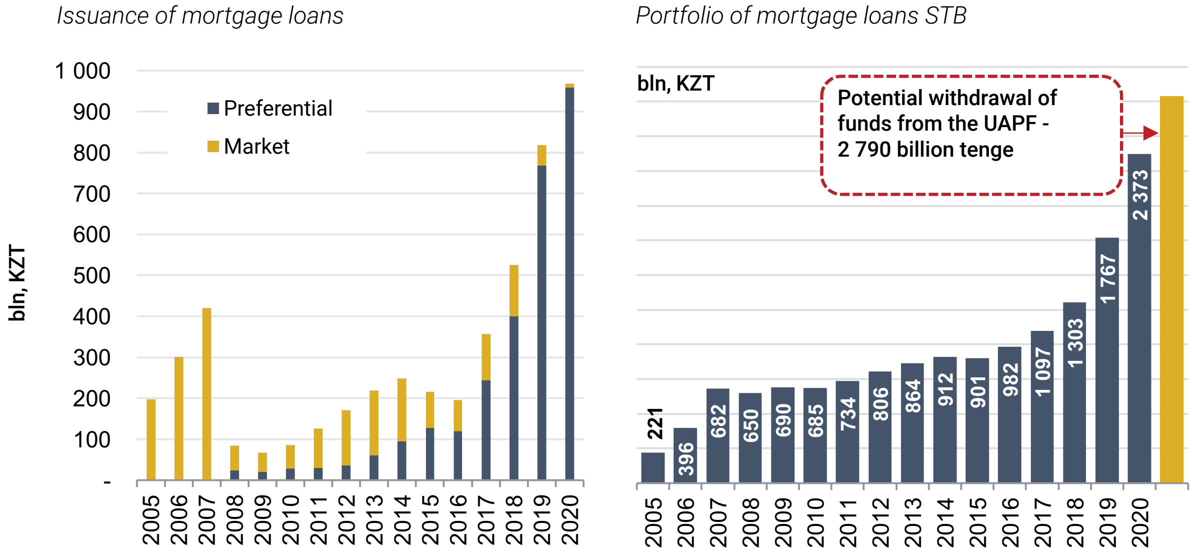
Share of mortgage loans in the portfolio

Weighted average rates on mortgage loans issued by STB

Source: *Bank statements*

In September 2020, it was announced about the possibility of withdrawing pension savings, above the sufficiency threshold, to resolve housing issues. The potential volume of resources withdrawn from the UPSF may amount to 2.79 trillion tenge, which is higher than the entire STB mortgage portfolio at the end of 2020 *(Chart 3.6)*. These measures can have a short-term impact on activity in the housing market and provide an opportunity to purchase housing for 700 thousand citizens, however, in the future, without sufficient growth in income and welfare of the population, overvalued housing risks in the real estate market are possible.

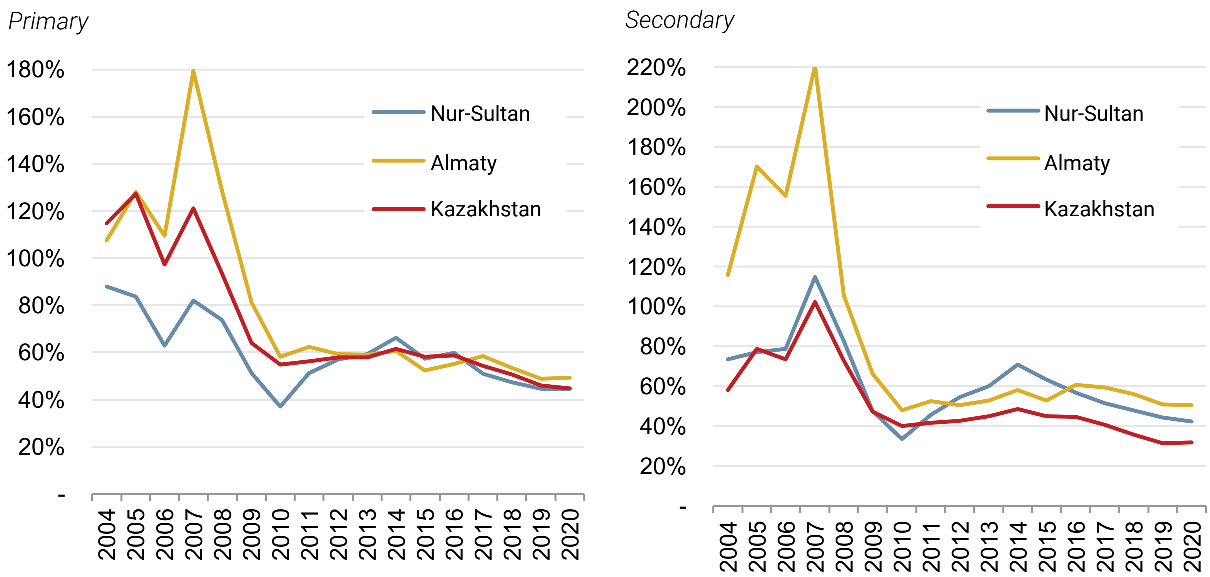
Chart 3.6 ***Concessional housing loans displace market mortgages***



Source: *Bank statements*

On average for STBs, the estimated ratio of the mortgage payment to the household's disposable income is gradually decreasing, but remains at a high level. For primary housing, the ratio in Kazakhstan, Almaty and Nur-Sultan is above 40%, for secondary housing in Almaty and Nur-Sultan, the ratio is above 50%, but the average for Kazakhstan in 2020 was 31.72% *(Chart 3.7)*. Secondary housing in Kazakhstan remains affordable at the current weighted average rates, but in 2020 the growth in prices for secondary housing amounted to almost 14%. Taking into account the rapid growth rates of prices in the secondary market over the past two years, as well as the expansion of government support, while prices continue to rise, secondary housing may turn out to be less affordable for the population.

Chart 3.7 ***Ratio of mortgage payment to disposable income of households***



Source: *BNS ASPR RK, Bank statements, NBRK calculations*

Note: *The mortgage payment was calculated as average house prices of 54 sq. m., initial payment 25%, average rates for second-tier banks*

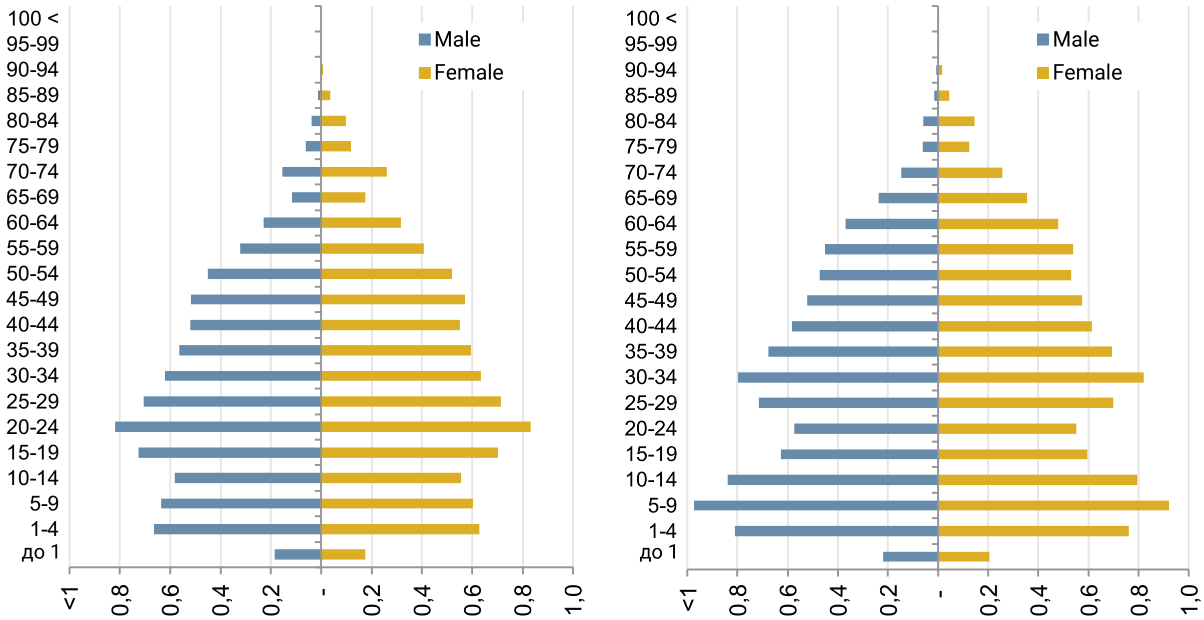
The additional stimulation of demand with short-term measures will only contribute to the growth of prices above fundamental values. Thus, when shocks to household incomes are realized, real estate prices will be subject to adjustment. The cost of collateralized real estate will significantly decrease, which will entail increased risks in the financial system.

3.3 Demography

In the structure of the population of the Republic of Kazakhstan by age, there is a decline in the age group of 15-24 years *(Chart 3.8)*. The population, which will have a demand for the first housing (20-29 years) over the next 5 years, will decrease by 11.5%. This fact is aggravated by the growing migration outflow over the past 7 years and averaging 0.1% in the Republic of Kazakhstan

Chart 3.8 ***Demography of the Republic of Kazakhstan***

Kazakhstan 2010, million people *Kazakhstan 2020, million people*

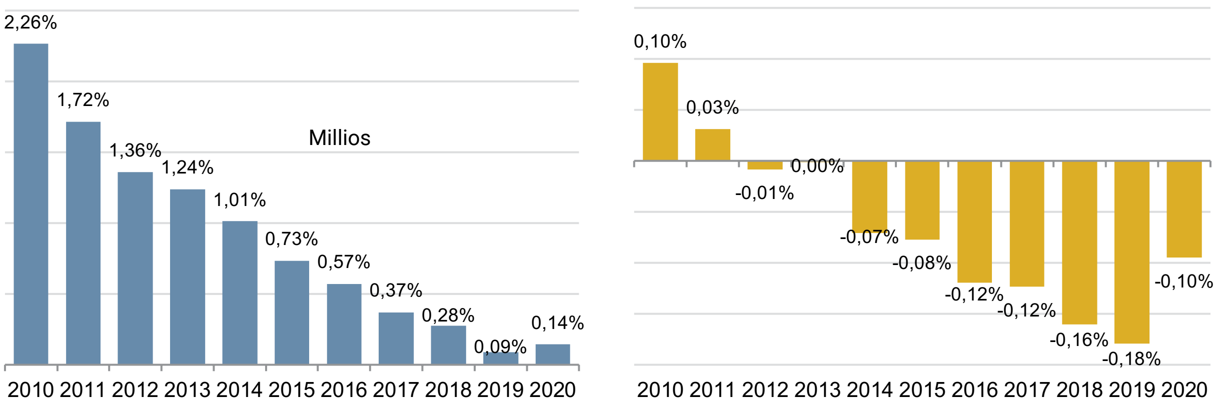


Source: *BNS ASPR RK*

The decline in the growth rate of the working-age population (20-64 years old) stopped in 2020 *(Chart 3.9)*. A gradual recovery in the growth rate of the working-age population is expected. Thus, starting from 2010 to 2020, the growth of the working-age population amounted to 7.8% with the population growth of 14.8%. The burden on the working-age population has reached its peak and will decline over the next 5-10 years.

Chart 3.9 ***Growth of the working population and the balance of migration of the Republic of Kazakhstan***

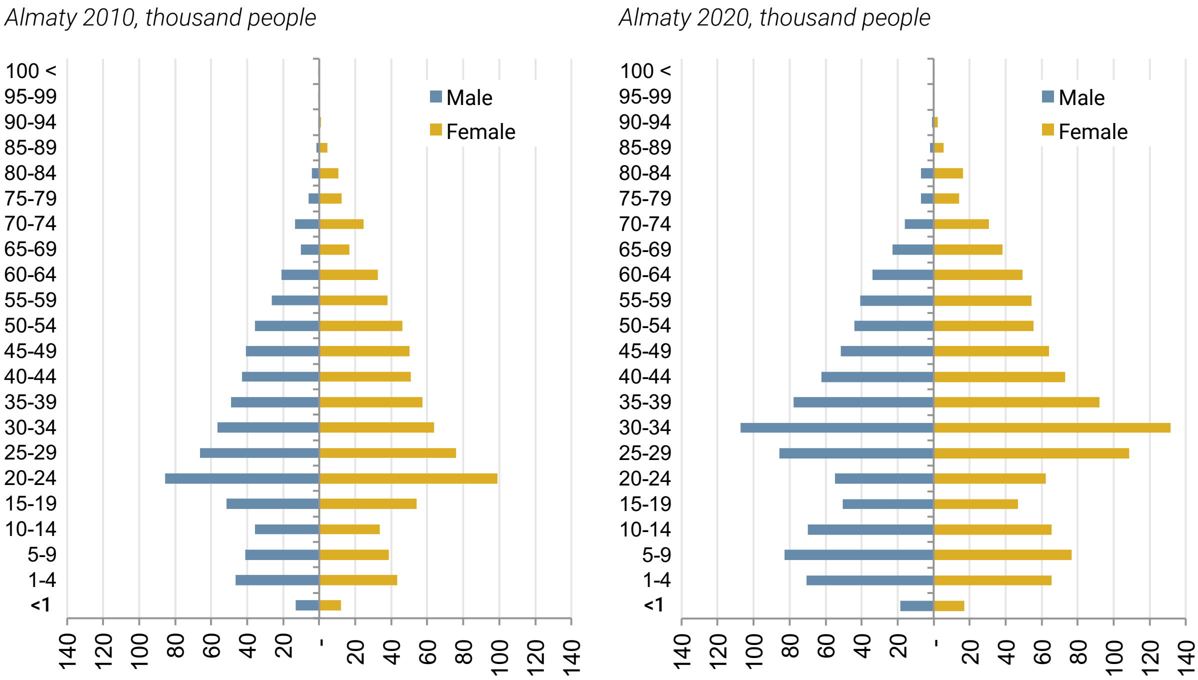
Population aged 20 to 64 *Migration balance*



Source: *BNS ASPR RK*

In the structure of the population of the city of Almaty, the decline in the number in the age group of 15-24 years is more noticeable and amounts to 34.5% compared to 2010 *(Chart 3.10)*. With the positive migration inflow over the past 7 years, which averages 1.6% per year, there is no decrease in the growth rate of the working-age population. Thus, the population of the city of Almaty has grown by 40% since 2010 and amounted to 1.98 million people at the end of 2020.

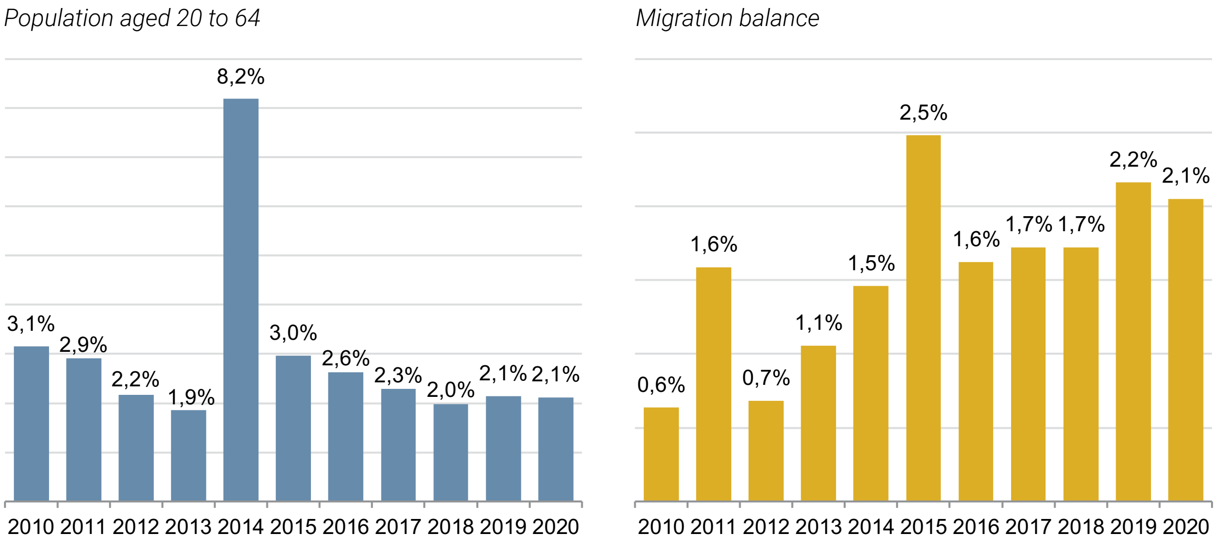
Chart 3.10 ***Demographics of the city of Almaty***



Source: *BNS ASPR RK*

The growth of the working-age population of the city of Almaty remains stable and averages 2.7% per year *(Chart 3.11)*. Most of the growth is attributable to population migration, which averaged 1.4% per year, accelerating to 2.2% and 2.1% in 2019 and 2020, respectively. The working-age population has grown by 33.2% since 2010 and totaled 1.25 million at the end of 2020.

Chart 3.11 ***Growth of the working population and the balance of migration of the city of Almaty***



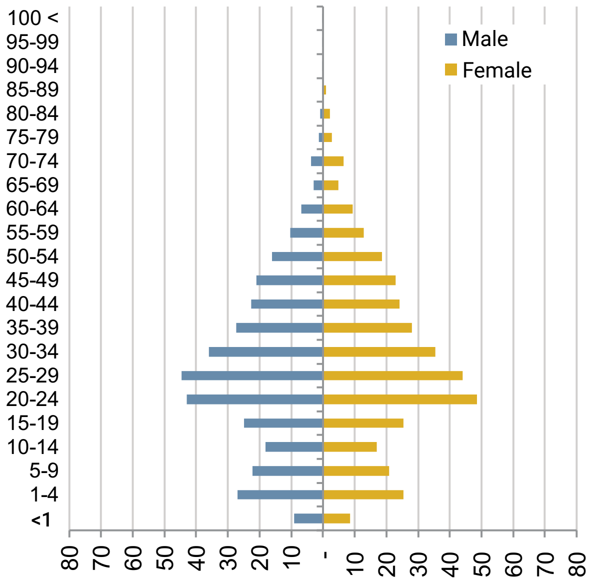
Source: *BNS ASPR RK*

Note: *In 2014, it is connected with the expansion of the city boundaries by the Decree of the President of the Republic of Kazakhstan No. 798 of April 16, 2014*

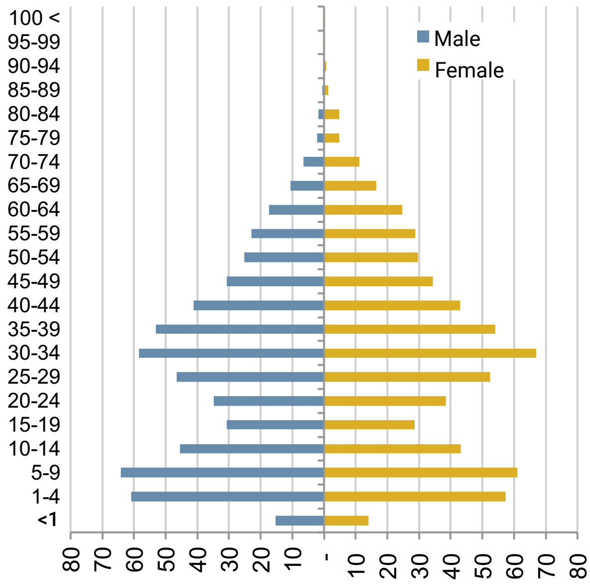
A similar trend was observed in the city of Nur-Sultan. The decline in the number of people between the ages 15 and 24 by 25.7% compared to 2010 is expected *(Chart 3.12)*. The positive migration inflow is on average 3.3% per year. The population of the city of Nur-Sultan has increased by 70% since 2010 and amounted to 1.18 million people at the end of 2020.

Chart 3.12 ***Demographics of the city of Nur-Sultan***

Nur-Sultan 2010, thousand people



Nur-Sultan 2020, thousand people

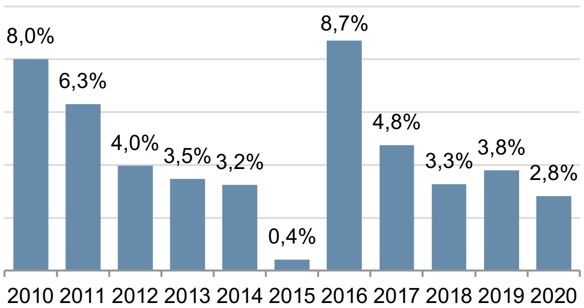


Source: *BNS ASPR RK*

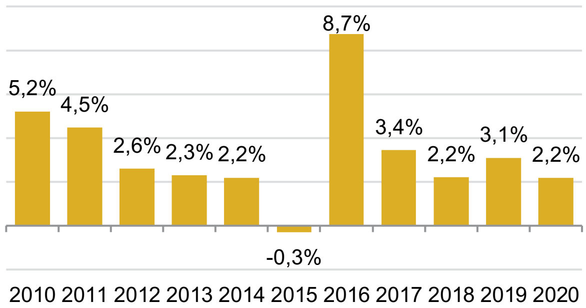
On average, the migration inflow in the city of Nur-Sultan is higher than in the city of Almaty, and amounts to 4.6% per year *(Chart 3.13)*. The growth of the working-age population in the city of Nur-Sultan averages 3.6% per year. Since 2010, the working-age population has grown by 49% and amounted to 702.3 thousand people at the end of 2020.

Chart 3.13 ***Growth of the working population and the balance of migration of Nur-Sultan***

Population aged 20 to 64



Migration balance



Source: *BNS ASPR RK*

Over the past 10 years, the burden on the working-age population has reached its peak. The population aged 20 to 39 has been declining across the Republic since 2016 and will continue to decline over the next 5-10 years due to the demographic structure of the population. However, the influx of the population at this age was positive in large cities of the Republic due to stable internal migration. However, the growth rate of the population between the ages of 20 and 39 is declining in cities and may turn negative in the near future. Smoothing of this effect will largely depend on the pace of urbanization in the Republic.

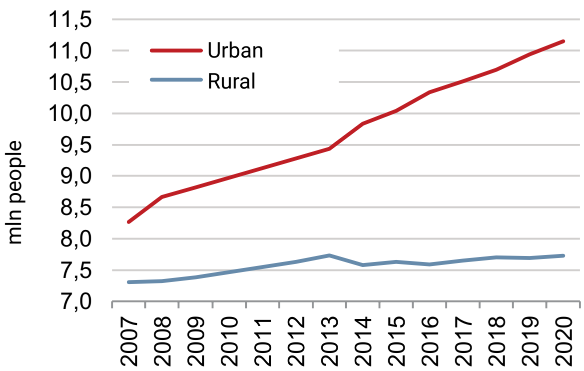
3.4 Urbanization

The level of urbanization over the past 10 years has grown from 54.4% to 58.7% *(Chart 3.14)*. In general, the population is growing at an average rate of 1.4% per year, of which 1.2% per year falls on the urban population and 0.2% per year – on the rural population. The growth rate of the urban population due to migration exceeds the growth rate of the rural population.

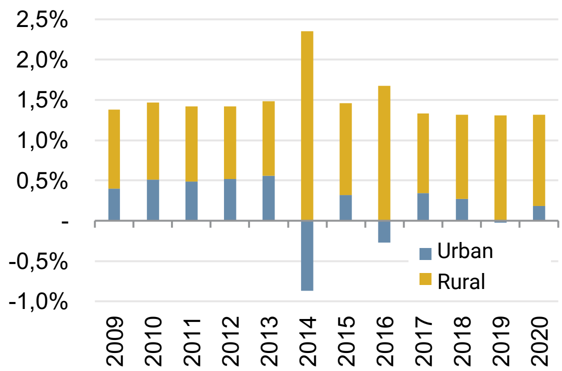
Thus, from 2010 to 2020, the rural population grew by 3.5% and amounted to 7.7 million people. While the urban population grew by 24.3% and amounted to 11.15 million people at the end of 2020.

Chart 3.14 ***Most of the population growth in the Republic of Kazakhstan occurs due to the growth of the urban population***

Population of the RK



Population growth rate of the RK



Source: *BNS ASPR RK*

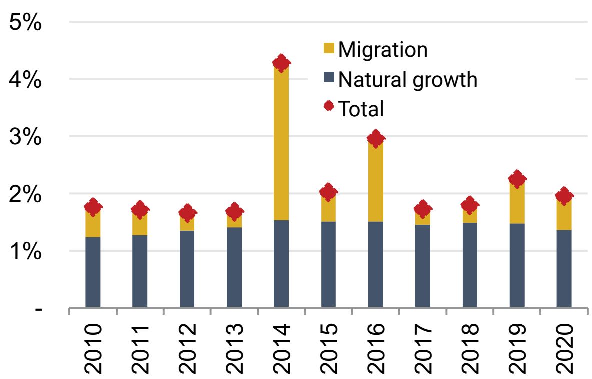
Note: *In 2014, it is connected with the expansion of the city boundaries by the Decree of the President of the Republic of Kazakhstan No. 798 of April 16, 2014*

The population internal migration from rural to urban areas accounts for a significant share in the growth rate of the urban population *(Chart 3.15)*. On average, the urban population has grown by 2.1% over the past ten years, of which 1.5% was natural growth and 0.8% - total migration (or 34.6% of total growth).

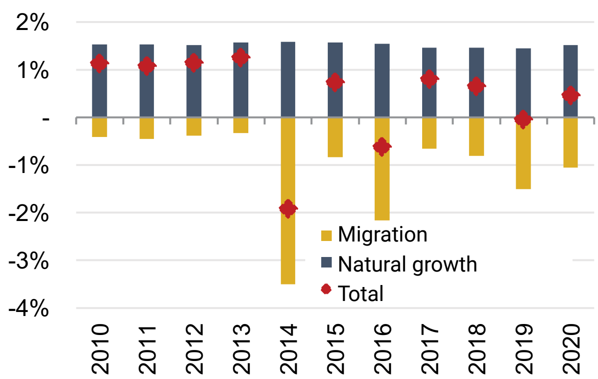
The growth rate of the rural population is lower than the urban one and amounted to 0.45% over the past ten years, of which 1.51% was natural increase and -1.06% was the overall balance of migration.

Chart 3.15 ***The rate of urbanization has been growing for the past five years***

Growth rate of urban population



Growth rate of rural population



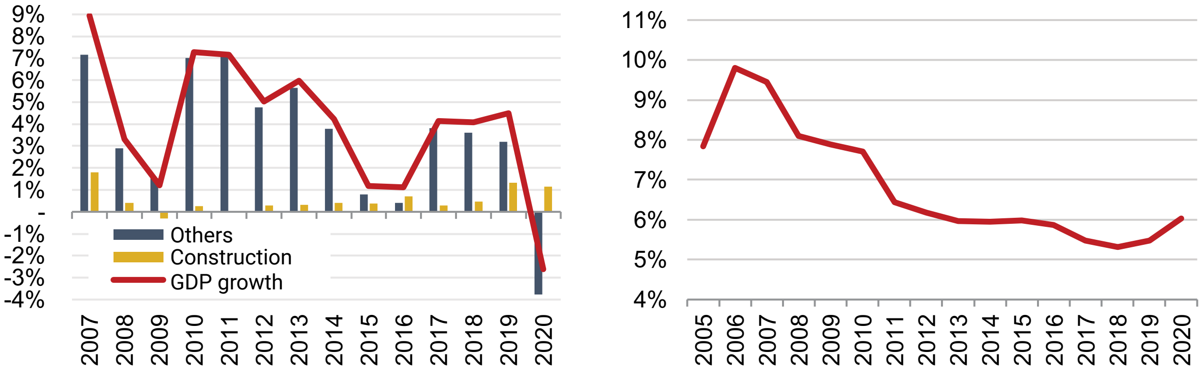
Source: *BNS ASPR RK*

3.5 Housing construction

The construction sector makes a positive contribution to the growth of the country's economy *(Chart 3.16)*. During the crisis, economic activity in the construction sector continued to grow, and by the end of 2020, the contribution to GDP growth was positive. Thus, in 2020, with a fall in real GDP to (-)2.6%, the contribution of the construction sector was positive and amounted to 1.2%. From 2018 to 2020, the share of the construction sector to GDP increased from 5.3% to 6%.

Chart 3.16 ***The construction sector continues to grow amid negative external shocks***

Contribution to real GDP growth *Share of construction in real GDP*



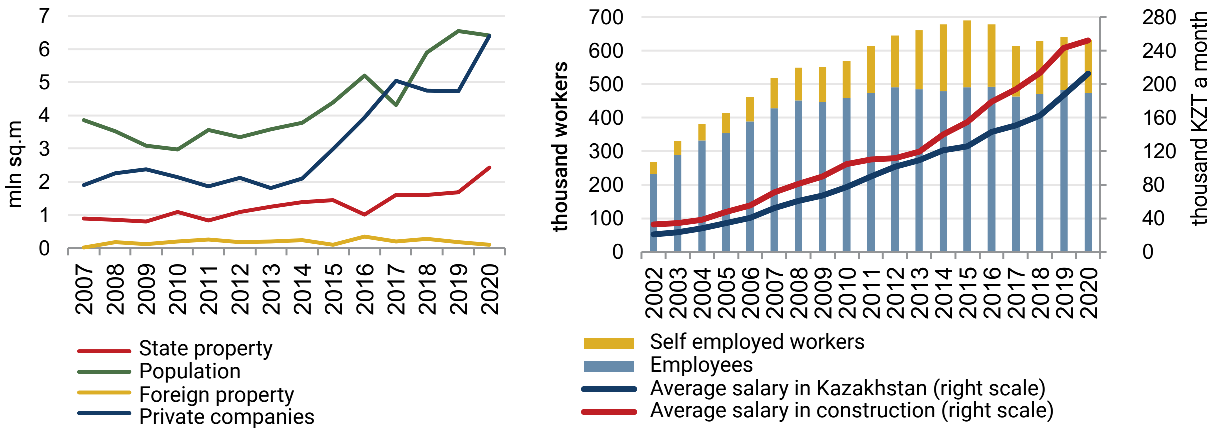
Source: *BNS ASPR RK*

Note: *Real GDP - GDP in 2005 prices*

Housing construction is growing mainly due to the construction of private property. At the same time, since 2013, the share of private companies' participation has been growing, thus, over 6 years, their share has increased from 26% to 42% *(Chart 3.17)*. In 2020, 15.3 million housing sq. m. were commissioned, which is 16.7% more compared to 2019. At the same time, the number of people employed in construction decreased by 1.6%, amounting to 630.8 thousand people, and the growth rate of wages decreased to 3.7%, with an average value of 10.5% over the previous 10 years.

Chart 3.17 ***The share of private construction companies' participation is growing***

Housing commissioning *Labor force in construction*

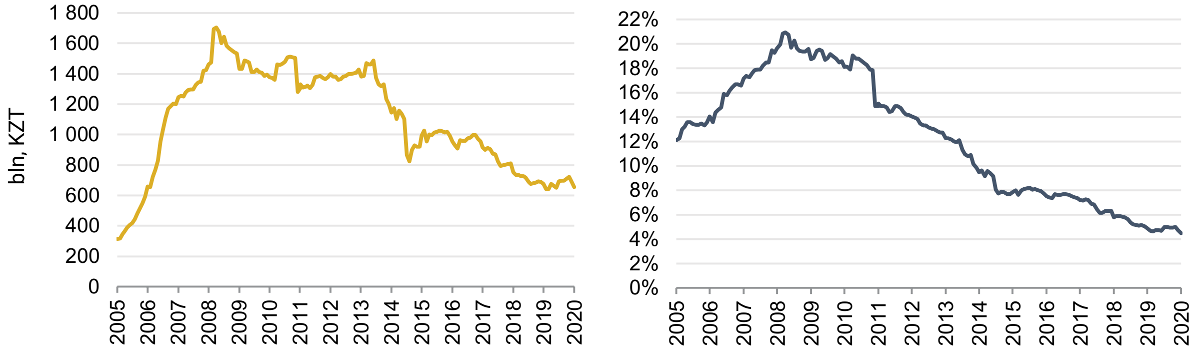


Source: *BNS ASPR RK*

Note: *A developer is an individual or legal entity authorized by the investor (or being an investor itself) to implement a project for the construction of enterprises, buildings, structures for their own or state needs, or for commercial purposes*

The growing demand and prices for real estate contribute to the interest of private companies to build new housing. At the same time, the volume of loans issued to the construction sector has been significantly decreasing since 2009, and at the end of 2020 the portfolio amounted to 654.8 billion tenge, and its share in the total portfolio of loans issued to the economy was 4.5% *(Chart 3.18)*.

Chart 3.18 ***The volume of loans issued to the construction sector is decreasing***

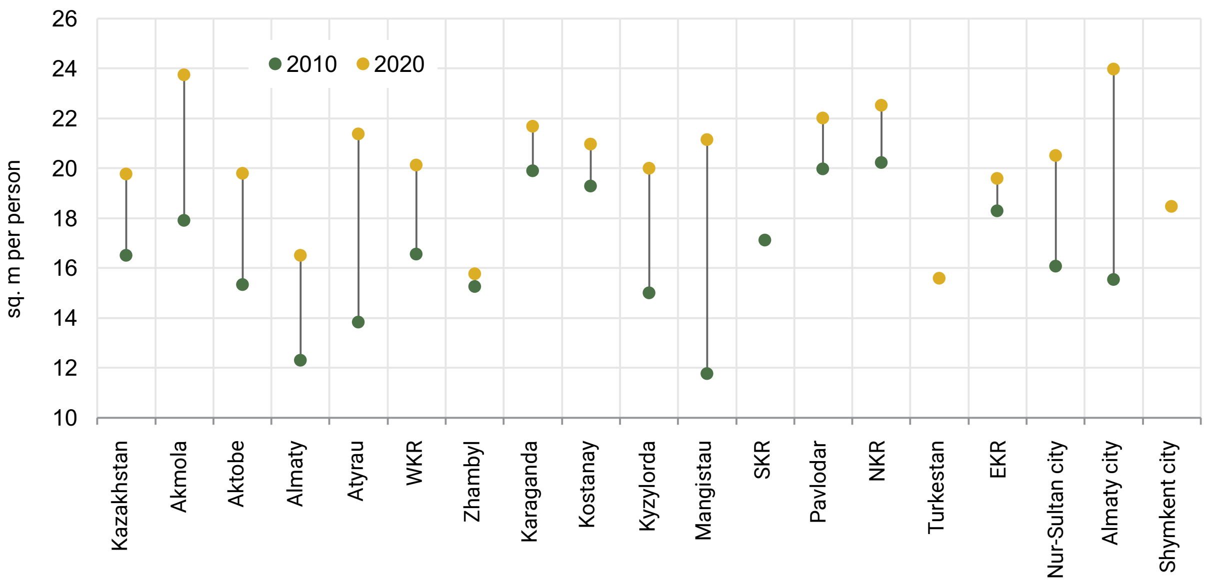


Source: *Bank statements*

3.6 Provision of the population with housing

Over the past 10 years, the housing stock of the Republic of Kazakhstan has grown by 37%, with a population growth of 14.8%, and amounted to 373.3 million sq. m. at the end of 2020. Thus, the provision of the population with housing increased from 16.5 sq. m. per person up to 19.8 sq. m. per person *(Chart 3.19)*. The main source of growth was the growth of urban housing stock, which for 10 years grew by 51% and amounted to 238.8 million sq. m. at the end of 2020, with the rural housing stock growth by 18.4% to 134.5 million sq. m.

Chart 3.19 ***Provision of the population with housing in the context of regions***



Source: *BNS ASPR RK*

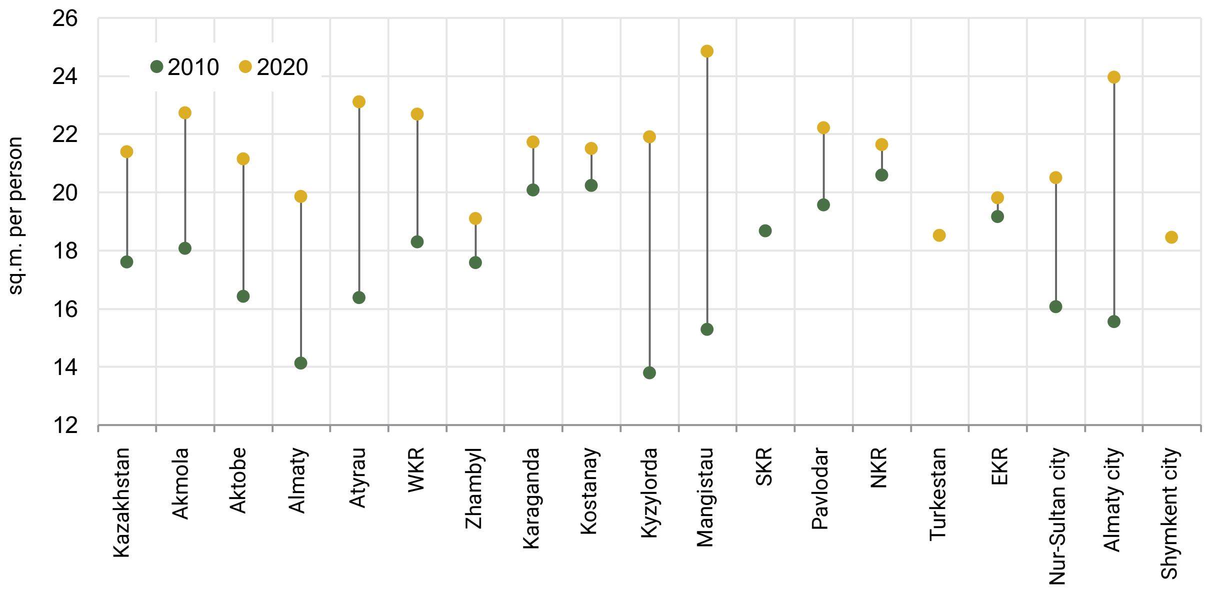
Note: *Housing provision is calculated as the ratio of the total area of the housing stock to the population*

The largest increase in the total housing stock was observed in the Mangistau region, where the figure for 10 years increased by 9.4 sq. m. per person and amounted to 21.15 sq. m. per person. In the context of regions in the city of Almaty, the population is most provided with housing, where there is 24 sq. m. per person. having increased over 10 years by 8.4 sq. m. per person.

The provision of the population with housing is growing significantly in all regions with the exception of the East Kazakhstan and Zhambyl regions. In the East Kazakhstan region, at the end of 2020, one person accounts for 19.6 sq. m., which is comparable to the average for the republic. In the Zhambyl region, this indicator grew by only 0.5 sq. m. per person, amounting to 15.8 sq. m. per person at the end of 2020. The Zhambyl region population, along with the Turkestan region, where there is 15.6 sq. m. per person, is least provided with housing.

The urban population's access to housing for 10 years has grown by 3.8 sq. m. and amounted to 21.4 sq. m. per person *(Chart 3.20)*. The access to housing in most cities exceeds 20 sq. m. per person. The largest increase in the indicator was observed in the cities of the Mangistau region and the Kyzylorda region, as well as in the city of Almaty. The lowest access of population to housing is observed in the cities of the Turkestan region and in the city of Shymkent, where there are 18.54 and 18.47 sq. m. per person. respectively. At the same time, earlier the city of Shymkent and the Turkestan region were included in the South Kazakhstan region and in 2010 the provision with housing was 18.7 sq. m. per person.

Chart 3.20 ***Provision of the population with housing in urban areas***



Source: *BNS ASPR RK*

Note: *Housing provision is calculated as the ratio of the total area of the housing stock to the population*

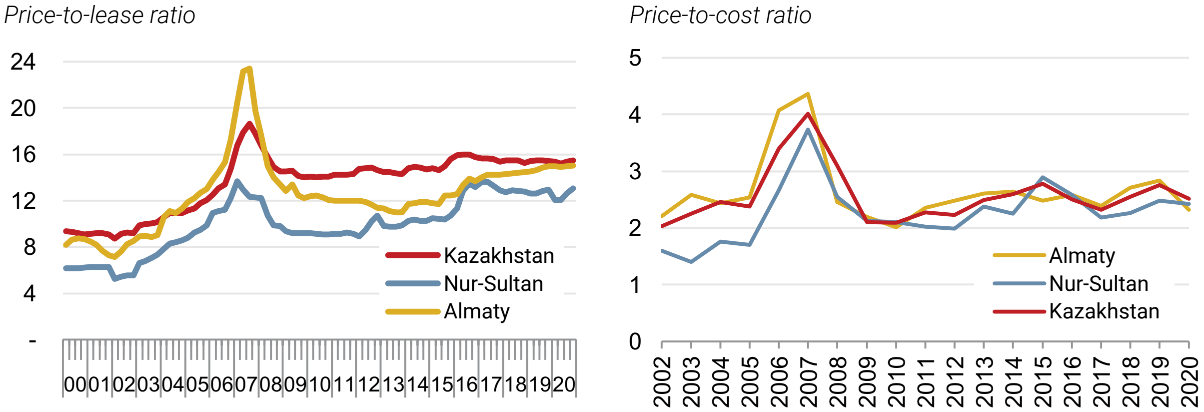
There is a pronounced trend towards urbanization, the provision of urban population with housing is growing rapidly. Despite this fact, in some regions, the provision with housing is growing at a very slow pace, as in the cities of the East Kazakhstan region. At the same time, in some regions, the provision with housing remains low, as in the cities of Zhambyl region, Turkestan region and in the city of Shymkent.

The supply of housing in cities has grown significantly over the past 10 years. Nevertheless, it is worth considering the possibilities of people who come to the city, their qualifications and level of education. Taking into account the trend of a stable influx of population from rural areas and the high proportion of the rural population at the moment, in the long term, the increase in the level of human capital of the rural population is an important factor. With a significant improvement in the quality of education and labor qualifications, the growth in demand for the population coming to the city from rural areas will promote not only stable demand in the housing market, but also the greater productivity of the economy as a whole.

3.7 Long-term risks in the residential real estate market

Housing profitability remains stable in the Republic, but is gradually decreasing in Almaty *(Chart 3.21)*. The ratio of housing prices to rental costs per year in Nur-Sultan is largely due to population migration, where population growth is higher than in Almaty and on average throughout the Republic. The ratio of new housing prices to construction costs has been relatively stable since 2009. A sharp increase in the ratio is not observed, the indicator since 2010 has averaged 2.47 in the Republic of Kazakhstan, 2.49 in the city of Almaty and 2.32 in the city of Nur-Sultan.

Chart 3.21 ***Overheating in the residential real estate market is not observed, however, the growth in activity is not associated with an increase in household income***

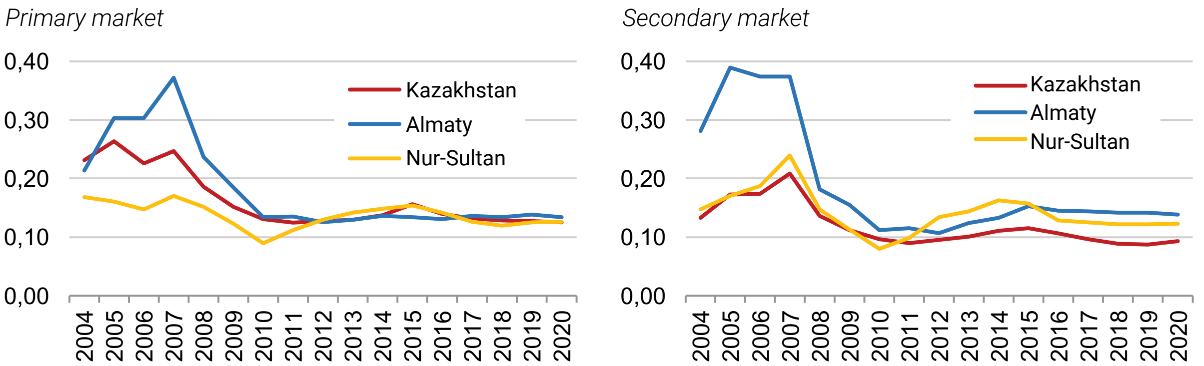


Source: *BNS ASPR RK*

Note: *1) Price / Rent Ratio = Prices for housing per sq. m./ (12 * Prices for renting sq. m. housing per month). 2) Price / Cost Ratio = New Housing Prices / Average Actual Construction Cost. (Samples of objects for calculating prices for new housing and its cost may differ)*

The ratio of housing prices to household income remains relatively stable *(Chart 3.22)*. Housing affordability in the primary market is the same in Almaty, Nur-Sultan and on average across the Republic. However, in the secondary market, housing is less affordable for the population in Almaty and Nur-Sultan than the average for the Republic. Over the past 5 years, the ratio of the population's income to the cost of housing has not decreased, and the population's capability to acquire housing from income without government support has not grown.

Chart 3.22 ***Ratio of housing prices per 1 sq. m. to disposable income***



Source: *BNS ASPR RK*

Note: *Disposable income is the nominal income per household minus taxes, retirement benefits, and transfers to other households*

The activity in the real estate market continues to grow. There is a stable rise in prices, which is most pronounced in the secondary housing market. Over the next 5-10 years, a decrease in the growth rate of the population, purchasing housing for the first time, is expected. The decrease in the cost of mortgages is due to fiscal incentives, which creates inflationary pressure and makes long-term mortgage loans under market conditions unprofitable for STBs.

At the same time, government support programs contribute to the growth of prices in the real estate market, require significant fiscal incentives and impede the development of market mortgage lending. The current price level and activity in the housing market are largely conditioned by subsidies from the state, which have a short-term effect on pricing.

For the development of a long-term efficient market, the transition to market mechanisms is required. However, a sharp decline in government support may lead to a decline in property prices, which will negatively affect the financial stability. The development of market mortgages requires a gradual decrease in the share of state support in the market and an increase in the targeting of subsidy programs. Thus, according to the Monetary Policy Strategy, until 2030, starting from 2023, the National Bank is gradually withdrawing from financing support programs.

The decrease in the cost of mortgages should take place naturally, through lower interest rates and the rate of inflation in the economy. Also, in the world practice, the securitization of mortgage loans is actively used, which significantly increases liquidity for STBs, makes it possible to effectively assess and redistribute risks under market conditions, which makes it possible to reduce the cost of market mortgage lending.

Another important factor is the process of urbanization of the population; the potential for internal migration of the population from rural areas to cities remains high. At the end of 2020, the share of the rural population in the republic is 41%. The development of the human capital of the rural population will not only ensure stable demand in the housing market in the future, but also contribute to the growth of productivity of the economy as a whole.

IV

Evaluation of asset quality and financial stability of banks

In 2020, the National Bank, together with the Agency, completed an independent review of the asset quality in the banking sector (Asset Quality Review/AQR), which significantly improved the quality of analytical information on the state of participating banks and the banking sector as a whole.

The AQR was a program of unprecedented scale and application. The perimeter of the AQR Program includes 14 second tier banks. Their market share accounted for a significant part: 87% of assets and 90% of the total loan portfolio. The review of the Kazakhstani banks' state was carried out using the methodology of the European Central Bank, but taking into account the specifics of the Kazakhstani market. This approach provided the results comparable to those of similar foreign programs.

The AQR results showed that there was no capital deficit at the system level. Based on the results of all implemented measures, the level of capital adequacy in all banks turned out to be higher than the requirements of the regulator.

The AQR results allowed to identify areas for improving the banks' performance: the quality of processes, data, internal policies and procedures. Full implementation of recommendations and corrective measures following the results of the Program will ensure the protection of the interests of bank depositors, prevent the accumulation of risks and increase the system's resistance to internal and external shocks.

4.1 AQR Uniqueness

This is the first time an independent asset quality review (AQR) has been carried out in Kazakhstan. The best international practices of the program were taken as a basis. In particular, the assessment methodology was represented by the AQR methodology, which was developed and applied by the European Central Bank between 2014 and 2019, but taking into account the specifics of the legislation and current practice of the banking sector in Kazakhstan. At the same time, all changes were subjected to careful analysis to maintain the same level of conservatism that was inherent in the original methodology. Thus, the regulator used the proven approaches meeting the international quality standards. It allowed to ensure comparability with the similar foreign programs results and their recognition by international partners.

Under these conditions, during the AQR, three main goals were set: increasing the transparency of the financial system for international and domestic investors and depositors, ensuring financial stability, and transparency of asset quality for supervisory authorities. To achieve these goals within the framework of the AQR, the following activities were carried out:

- *an objective independent review of the share of stage 3 borrowers;*
- *independent revaluation of the value of collateral, net of costs and taking into account collection and sale procedures, as well as discounts for sale;*
- *review of the levels of expected credit losses;*
- *revaluation of assets measured at fair value (bonds, real estate, derivatives and loans at fair value);*
- *analysis of a possible effect on the adequacy of fixed capital k1, taking into account the AQR adjustments and measures taken by the banks to improve the quality of assets.*

Thus, the AQR priority task, which it managed to achieve, was to obtain an independent assessment of the banks' asset quality and increase the transparency of the banking sector by providing an objective outlook on banking assets, as well as a reliable and fair assessment of the capital adequacy of the banks in question.

4.2 Main parameters and key phases of the work

The AQR perimeter included 14 large banks, which control 87% of the country's total banking assets and 90% of the total loan portfolio of banks. The audit was carried out as of the reporting date April 1, 2019.

To ensure objectivity and transparency of data, the regulator implemented the AQR in close cooperation with an independent international consultant in the field of AQR - Oliver Wyman (consultants), international audit companies, as well as independent appraisal companies. In particular, more than 500 employees of audit and consulting companies, more than 60 employees of the regulator and more than 70 independent appraisal companies were involved in the AQR process.

With a view to maintain high standards of quality and consistency of results, the work was carried out within the framework of a multi-phase organizational control structure. The AQR structure was based on the unified methodology and was built on the principle of three lines of defense with the participation of independent auditors, the regulator and the Central Program Management Office, which consisted of consultants and the regulator.

The approach applied was aimed at conducting a thorough and comprehensive analysis based on the principle of "a level playing field" for all banks. Within the framework of the Program, a detailed analysis at the asset level was carried out for more than 100 loan portfolios and about 6 thousand borrowers, for whom provisions were recalculated, as well as an independent valuation of more than 7 thousand objects of collateral.

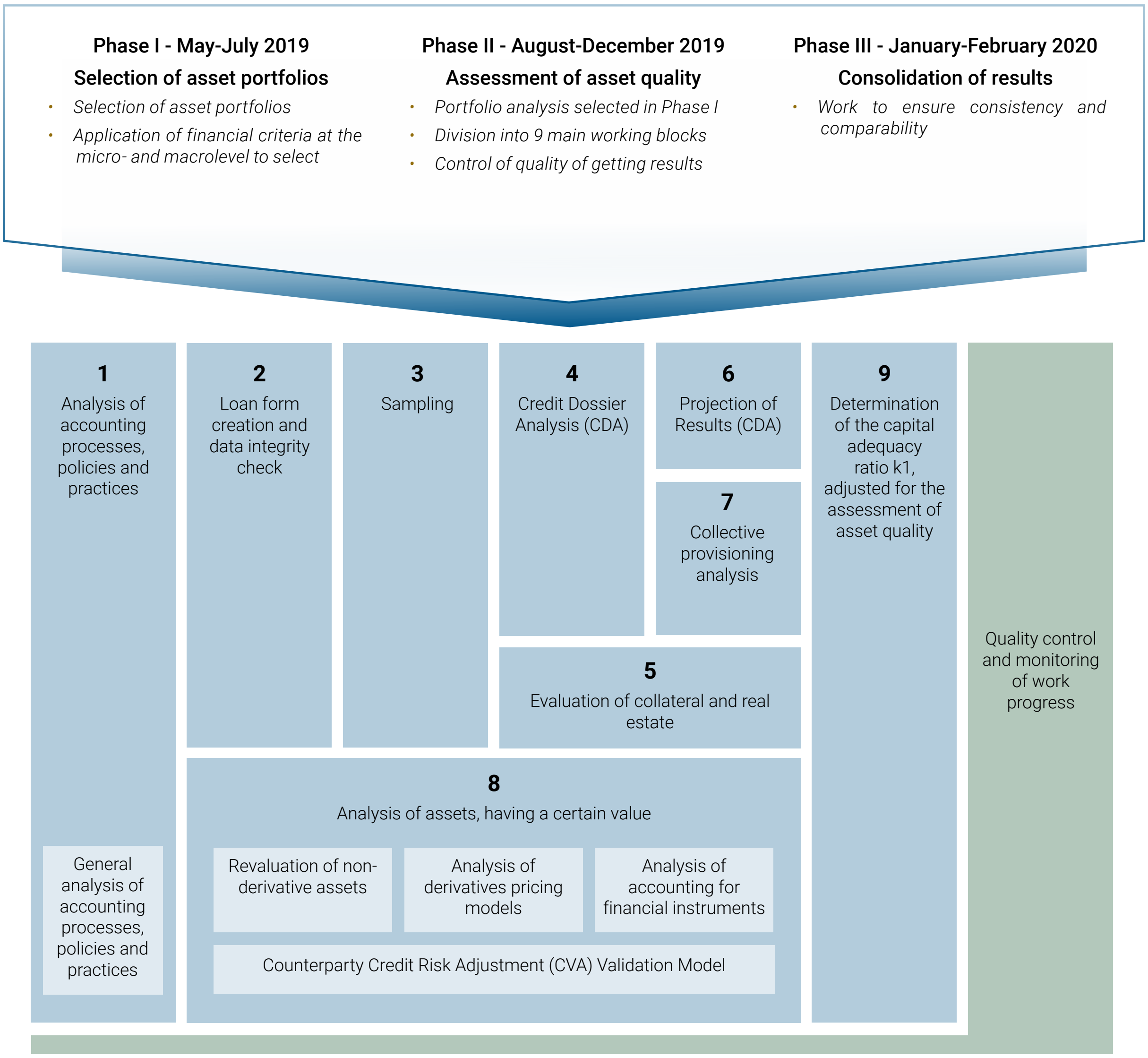
Moreover, another audit organization conducted the cross-validation procedure for the review, carried out by the involved auditors. This cross-validation distinguishes the AQR process in Kazakhstan from a similar program implemented by the European Central Bank, where the widespread cross-validation was not carried out.

The AQR was divided into three phases: preparatory work for the AQR, the AQR in second-tier banks, and the development and approval of banks' corrective action plans *(Figure 1).*

As part of the preparatory phase of the work, the Guide for conducting the AQR was developed, a list of participating banks was determined, independent audit companies were selected, and assistance was provided to the participating banks in developing criteria and choosing independent appraisal companies for assessing collateral and bank assets.

The second phase was focused on conducting the AQR directly in banks. In particular, in the period from August to December 2019, 14 banks were assessed using the AQR Guidelines unified for all participants.

Figure 1 ***AQR was carried out in three phases, the second phase of which consisted of 9 interconnected work blocks***



Source: *Final report on the results of assessing the quality of assets of second-tier banks of the Republic of Kazakhstan*

As part of the third phase, the AQR results were provided, including qualitative conclusions, measures and recommendations aimed at optimizing banks' risk management systems. The main task of this phase was to develop detailed plans for corrective actions based on the proposals of the regulator.

From May 2019 to February 2020, the list of works included the development of a methodology, analysis of documentation, data, bank processes and their potential impact on key performance indicators as of April 1, 2019. In addition, based on the results obtained, individual measures and recommendations were prepared for each bank.

4.3 AQR Results

The AQR results as of April 1, 2019 confirmed that there was no capital deficit. At the system level, the prudential standards k1 and k2 were met.

At the consolidated level, the value of the capital ratio k1, taking into account IFRS adjustments, decreased to 12.7% (regulatory ratio k1 - 7.5%) compared to 15.5% before the AQR. The results show that the banking system in Kazakhstan has remained well capitalized. In particular, the excess of the k1 ratio relative to the regulatory minimum was 70%, taking into account the adjustments to the AQR, compared to 105% before the AQR. The capital stock at the system level amounted to about 800 billion tenge.

Similarly, according to the AQR results, the stock of prudential capital at the system level was sufficient to fully cover the risks.

AQR Results by Block of Work

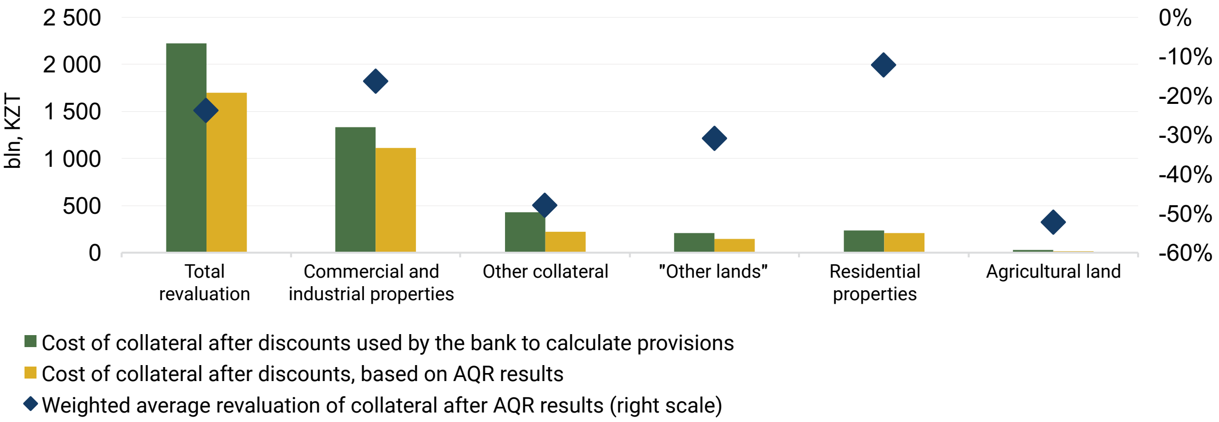
Working block: Assessment of collateral

Within the framework of this block of work, the key information was determined, which is necessary for assessing expected credit losses (ECL) for borrowers - the value of their collateral. For its correct assessment in accordance with the AQR methodology, a revaluation of collateral was carried out for all participating banks, the resulting values of which were used in the analysis of credit dossiers.

In order to determine the value of collaterals, the international standards were used (European standards EVS-2016, principles of the Royal Institute of Certified Appraisers (RICS). The revaluation perimeter included collaterals: of the borrowers referred by banks to phase 3, as well as those reclassified to phase 3 according to the AQR results; on loans to individuals secured by residential real estate; and on loans to persons associated with the bank by special relations.

The decrease in the total value of collateral after revaluation was 23.8% of the value of actual collateral at the reporting date of the AQR. At the same time, in absolute terms, the most significant revaluation was observed in the value of commercial and industrial real estate, as well as other collateral, by 41% and 39%, respectively *(Chart 4.1).*

Chart 4.1 ***Revaluation of collateral for the system amounted to 23.8%***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Note: *SB Bank Home Credit JSC was assessed solely on the basis of collective provisioning*

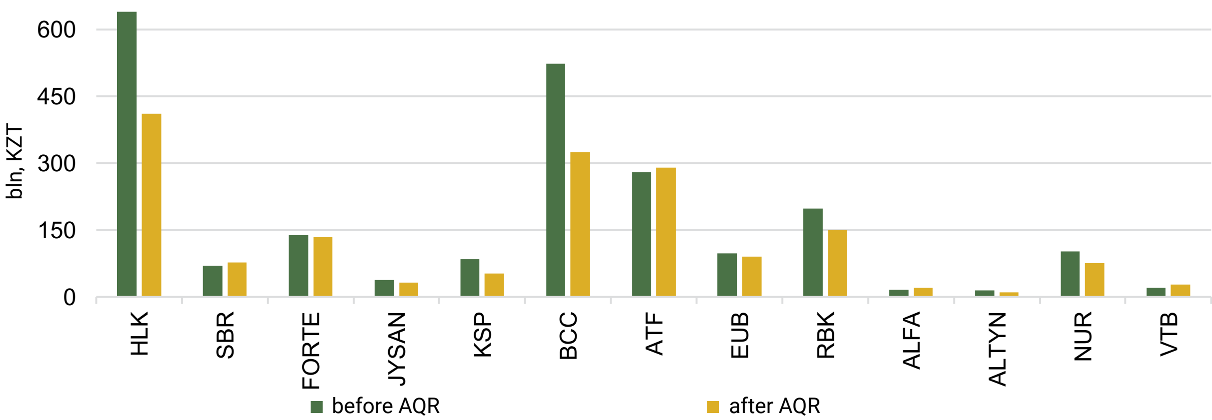
The main factors that caused the decrease in the cost of collateral were:

- *the use of a cost approach by the participating banks, which distorted the value of collateral, not reflecting its market value and led to incorrect calculation of provisions;*
- *the unfounded judgments of appraisers, expressed in the use of incomparable analogues in the implementation of comparative analysis;*

- *the lack of regular revaluation of collateral and, as a result, the use of outdated estimates based on data that have lost their relevance.*

The highest value of the overall negative revaluation of the collateral value was revealed in Halyk Savings Bank of Kazakhstan JSC, Bank CenterCredit JSC and Bank RBK JSC as a result of a decrease in the value of commercial and industrial real estate, as well as other collateral, by more than 70%, 95% and 60%, respectively *(Chart 4.2)*.

Chart 4.2 ***The negative revaluation of collateral was observed at the level of individual banks***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Note: *Hereinafter: HLK - Halyk Savings Bank of Kazakhstan JSC, SBR - SB Sberbank of Russia JSC, FORTE - ForteBank JSC, JYSAN - First Heartland Jysan Bank JSC, KSP - Kaspi Bank JSC, BCC - Bank CenterCredit JSC, ATF – ATF Bank JSC, EUB - Eurasian Bank JSC, RBK - Bank RBK Bank JSC, ALFA - SB Alfa-Bank JSC, ALTYN - Altyn Bank JSC (SB China Citic Bank Corporation Limited), NUR - Nurbank JSC, VTB - SB VTB Bank JSC*

At the same time, the negative revaluation of the value of collateral did not have a direct proportional effect on the ECL calculation, mainly due to the fact that the level of coverage of loans with collateral exceeded 100%, and therefore the decrease in the value of collateral could not have any effect on the actual level of expected credit losses.

The highest value of the overall positive revaluation of the collateral value was obtained in ATF Bank JSC, associated with the revaluation of commercial and industrial real estate by 85%. This effect was partially offset by the negative revaluation of the value of other land.

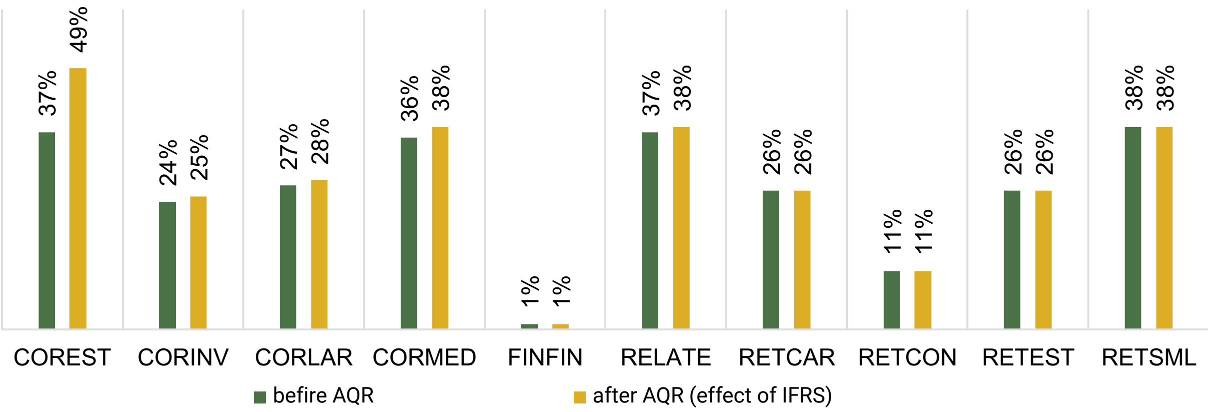
Work Blocks: Credit Dossier Analysis (CDA) and Projection of Results

The CDA is based on a detailed analysis of individual borrowers and all of their liabilities for outstanding loans, which included an assessment of the classification of borrowers by stage of impairment, as well as an analysis of the correctness of ECL calculations. As part of this phase, ECL was recalculated for all liabilities included in the analysis perimeter. For Phase 1 and Phase 2 liabilities in corporate portfolios that were fully sampled, an additional calculation step was carried out using simplified adjustments for default probabilities and recoveries to obtain ECL adjustments.

For these purposes, after the formation of a sample of 163 thousand borrowers from all participating banks, 5,875 borrowers were selected for the detailed CDA. The CDA was conducted at the borrower level, therefore, the results obtained were projected to assess the impact of the CDA results at the portfolio level as a whole. Among the main projected indicators are the share of reclassification by stages of impairment, as well as the amount of ECL increase.

The weighted average share of assets in phase 3 using IFRS criteria in aggregate for all participating banks amounted to 21.1%. At the same time, the largest share of reclassified borrowers was observed for the portfolios "Loans to corporate borrowers issued for the acquisition, construction of real estate" (COREST) and "Other loans to medium-sized enterprises" (CORMED) *(Chart 4.3)*.

Chart 4.3 ***The total share of phase 3 borrowers across all portfolios at the system level did not increase significantly***



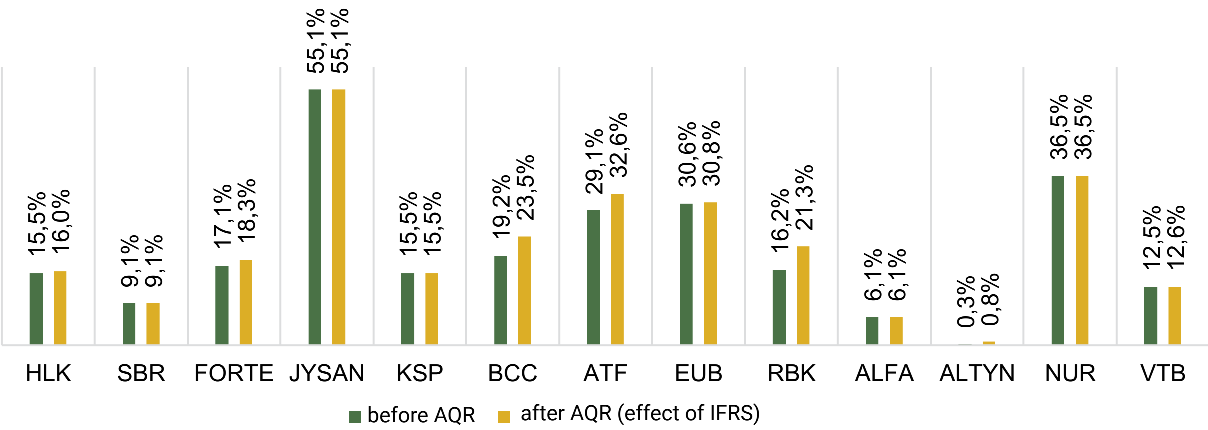
Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Note: *hereinafter: COREST - "Loans to corporate borrowers issued for the acquisition, construction of real estate", CORINV - "Investment loans to corporate borrowers", CORLAR - "Other loans to large-sized businesses", CORMED - "Other loans to medium-sized businesses", FINFIN - "Loans to financial institutions", RELATE - "Loans to persons associated with the bank by special relations", RETCAR - "Car loans and other secured loans to individuals", RETCON - "Consumer loans, credit cards and other loans to individuals", RETEST - "Loans to individuals secured by real estate", RETSML - "Loans to small-sized businesses"*

The main factors behind the reclassification of borrowers were:

- *the incorrect determination or inconsistent application by banks of impairment criteria (referring the borrower to phase 1 and / or 2 if there are facts of loan restructuring due to the deterioration of the financial condition of the borrower, overdue more than 90 days for at least one of the borrower's obligations) and criteria for a significant increase in credit risk;*
- *the absence or inconsistent application of the criteria for "recovery" of loans (return from default and change in the stage of impairment towards improvement).*

Chart 4.4 ***The total share of phase 3 borrowers in all assets broken down by participating banks slightly increased at the level of individual banks***

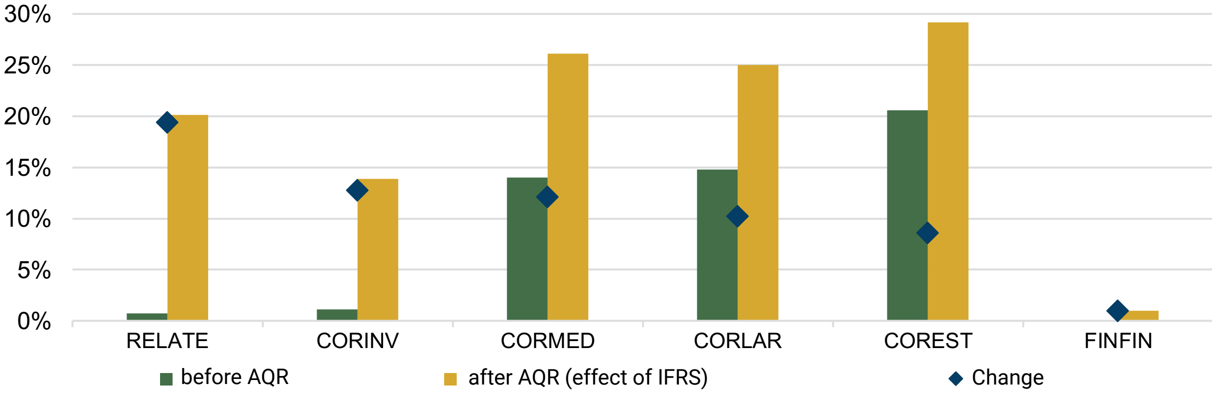


Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

The largest share of borrowers reclassified to phase 3 broken down by participating banks was revealed in Bank RBK JSC, Bank CenterCredit JSC and ATF Bank JSC *(Chart 4.4)*. The main trigger, taking into account the effect of the IFRS adjustments that led to the reclassification of borrowers, was the restructuring of loans due to the deterioration of the borrower's financial condition.

A significant increase in the ECL level for the system in the portfolios "Loans to persons associated with a bank by special relations» (RELATE) and «Investment loans to corporate borrowers» (CORINV) is conditioned by the presence of the factors such as incorrect estimation of borrowers' cash flows in the framework of the valuation method based on the "operating business" principle (going concern), overestimation of expected cash flows from the collateralized property sales, inaccuracies in calculating the total amount of borrowers' liabilities *(Chart 4.5)*.

Chart 4.5 ***ECL level of participating banks in terms of portfolios increased significantly in RELATE and CORINV portfolios***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

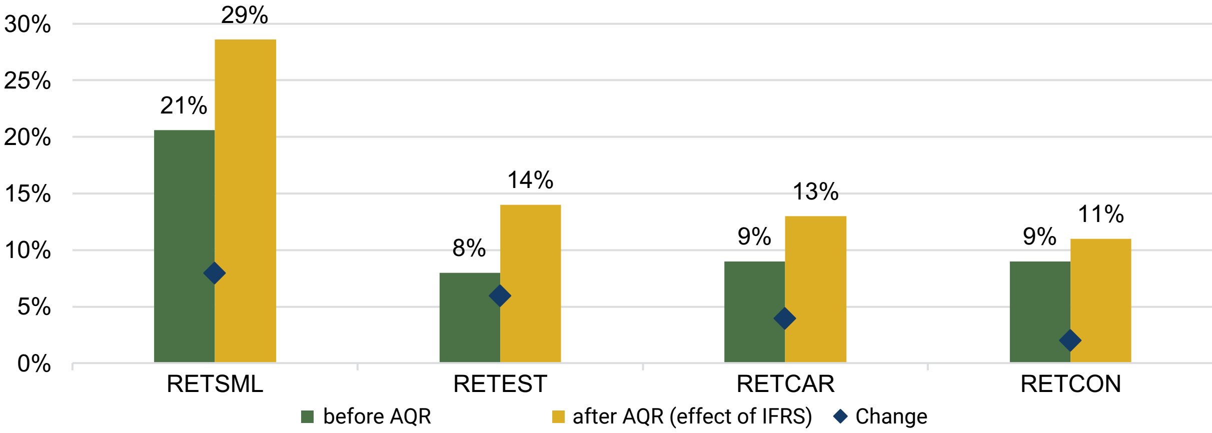
Work block: Analysis of provisioning based on collective review

The collective review approach to provisioning was applied for retail loans as well as corporate loans classified as phase 1 and 2 loans. For these purposes, after sampling, out of 134 portfolios included in the AQR perimeter, 47 portfolios were selected for the provisioning analysis based on collective review.

ECLs for borrowers in phases 1 and 2 were assessed on the basis of a collective review using a validation model projected on the results of the credit dossier analysis, the results of these portfolios are reflected in the CDA section. For retail portfolios, ECLs were fully calculated as part of the provisioning analysis based on collective review.

The most significant increase in the level of ECL for the system was observed for the portfolios of Loans to Small-Sized Businesses (RETSML) and Loans to Individuals Secured by Real Estate (RETEST) by 8% and 6%, respectively *(Chart 4.6)*.

Chart 4.6 ***Significant increase in ECLs, calculated on the basis of collective review, was observed in the RETSML and RETEST portfolios***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Note: *Increase in ECL calculated on the basis of collective review, % of the total commitment. ECL in the RETSML portfolio is reflected in terms of ECL results of large borrowers in this segment, which were assessed on an individual basis under the CDA*

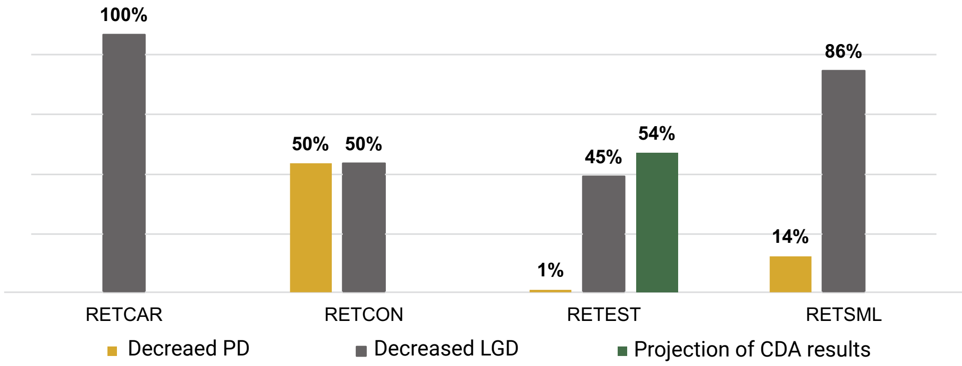
The reasons for the underestimation of ECL by the participating banks for each type of portfolio were identified by analyzing the sensitivity of the test model. As a result, the main factors driving the adjustments to the ECL estimates in the collective review reserve analysis *(Chart 4.7)* were:

- *the use of unreasonable assumptions and simplifications in models for calculating the probability of default (PD) - lack of assessment for certain types of products, insufficiently detailed segmentation of customers, incorrect accounting of restructuring cases (including refinancing), write-offs, sale and transfer of loans to third parties, etc.;*

- *the use of unreasonable assumptions and simplifications in models for assessing the level of loss in case of default (LGD) - limited statistical data on the level of returns (for example, only a part of the available data is used, recoveries are not properly taken into account, fines and accrued interest, cost of collection services, etc.);*

- *the projection of credit dossiers analysis results - incorrect classification of borrowers by stages of impairment, underestimation of ECL at the borrower's level due to an overestimation of expected returns from the sale of collateral in the event of default, or underestimation of the amount of liabilities at the time of default, etc.*

Chart 4.7 ***The main factors for underestimating ECL are underestimated levels of PD and LGD***

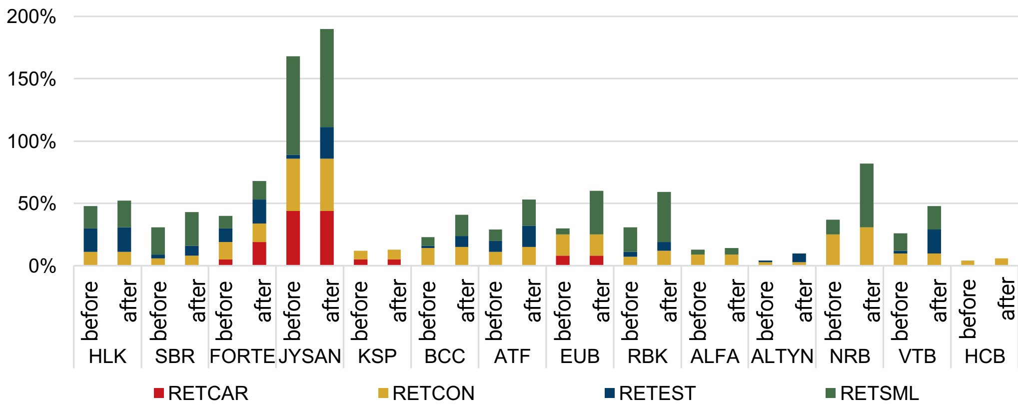


Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Note: *Factors of ECL underestimation by the participating banks, % of the total volume of underestimated ECL*

A significant increase in the level of ECL for the portfolio "Loans to small-sized businesses» (RETSML) was noted in Nurbank JSC and Eurasian Bank JSC by 39% and 30%, respectively, as a result of incorrect accounting of statistical data on the observed levels of returns and the cost of collateral in models for assessing the level of losses in case of default (underestimated level of LGD). For the portfolio "Loans of individuals secured by real estate» (RETEST), a significant increase in the level of ECL occurred in First Heartland Jysan Bank JSC and SB VTB Bank JSC by 22% and 17%, respectively, due to the lack of correct accounting of the collateral sale probability *(Chart 4.8)*.

Chart 4.8 ***The ECL level for portfolios calculated at the level of collective provisioning for the system increased slightly, while in some banks it remained high***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Note: *For RETSML portfolio ECL rates by portfolios are shown taking into account CDA results for the largest borrowers in this segment. The chart does not show portfolios in which the number of borrowers was insignificant, and, accordingly, the calculation results are not representative*

Working block: General adjustment and impact on capital

The results of all the AQR work units were aggregated in order to determine the overall effect of the adjustments in terms of capital requirements and projected the assessment to the capital adequacy level. The adjustments were divided into two categories: potential adjustments to IFRS and potential adjustments to assess prudential impact *(Figure 2)*.

Figure 2. ***The effect on capital ratios k1 and k2 was calculated depending on the type of AQR adjustments***

IFRS adjustments (effect on the k1 ratio) were estimated taking into account:

- *the results of reclassifications of borrowers to a higher stage of impairment in accordance with IFRS;*
- *the results of the ECL recalculation for borrowers included in the CDA perimeter, which were assigned to stage 3 by the participating banks themselves before the start of the AQR;*
- *the results of revaluation of assets held on the balance sheet (except for real estate) and estimated at fair value.*

Adjustments to assess the prudential effect (effect on the k2 ratio) included:

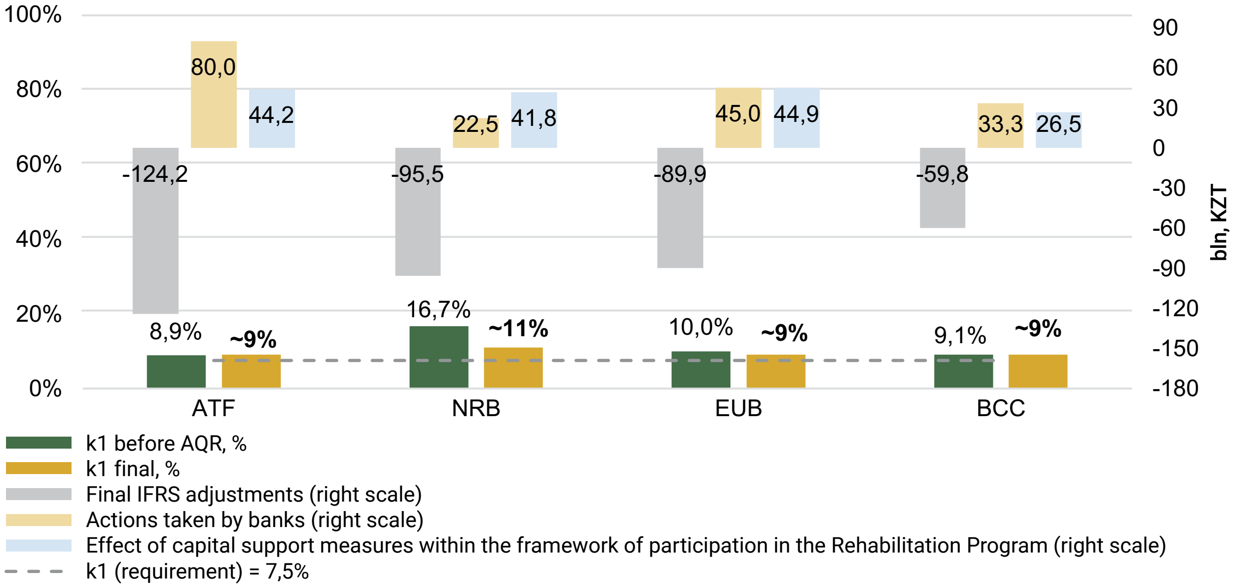
- *the results of reclassifications of borrowers to a higher stage of impairment based on the triggers of prudential impairment;*
- *the results of the projection based on the CDA results;*
- *the results of the analysis of the collective provisioning;*
- *the results of the revaluation of real estate on the banks' balance sheets.*

Note: *The effect on capital ratio k1 was estimated taking into account the tax effect and changes in deferred tax assets*

According to the AQR results, the final IFRS adjustments as of the reporting date April 1, 2019 amounted to 429 billion tenge, of which 180.3 billion tenge were settled by individual banks by means of the efforts to improve the asset quality by accepting additional collateral, repaying part of problem loans, reflecting losses through additional formation of provisions and write-offs *(Chart 4.9)*.

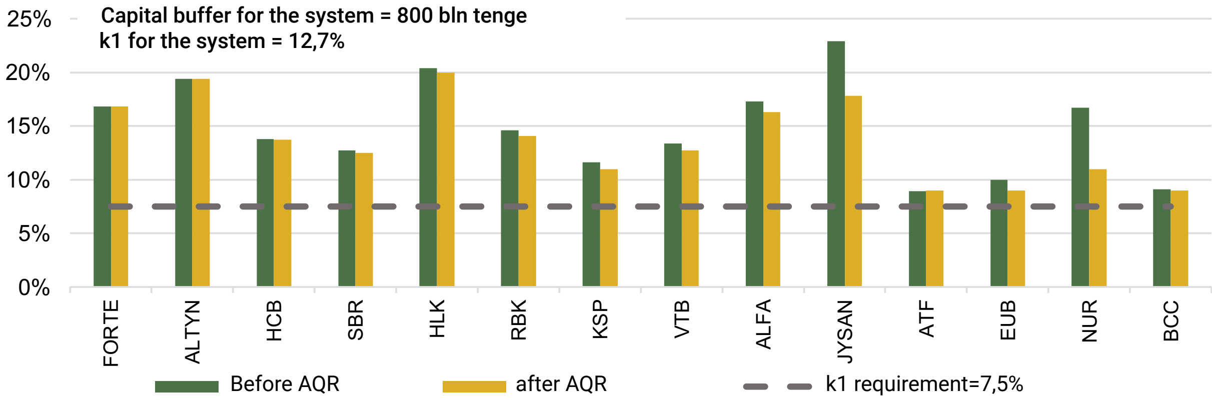
The resulting values of the capital ratio k1, taking into account the measures taken during the AQR period and the effect of the Financial Stability Program, showed that banks complied with this ratio with the capital stock availability *(Chart 4.10)*.

Chart 4.9 ***The results of adjustments to capital k1, taking into account the measures implemented during the AQR period and the effect of the Financial Sustainability Program, showed compliance with the prudential ratio***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

Chart 4.10 ***The AQR results showed the presence of the capital stock k1 for the system***



Source: *Final report on the results of reviewing the quality of assets of second-tier banks of the Republic of Kazakhstan*

The resulting adjustments to assess the prudential effect, in particular the review results of provisioning models based on collective review, revaluation of real estate properties and application of the prudential triggers for credit impairment, were used to review the adequacy of the total regulatory capital k2. Thus, the results of the AQR showed that the stock of prudential capital k2 at the system level is sufficient for the completeness of risks coverage from a prudential point of view at the date of the AQR.

4.4 Asset Protection Scheme

In 2020, the Government, the National Bank and the Agency identified an additional asset protection instrument in the form of a paid guarantee of the Problem Loans Fund. This tool aims to provide full coverage of potential risks.

Taking into account the AQR results, the asset protection tool provided the AQR participating banks with the opportunity to implement all the necessary measures to improve the asset quality. The corresponding Program allowed the banks that had assumed obligations for additional capitalization and limiting risks without using budget funds to participate on the terms of payment and refund.

Within the framework of the Program for Improving the Financial Stability of the Banking Sector (adopted by the National Bank in June 2017), the banks focused on creating a capital buffer, including the asset protection instrument use. In particular, the following measures were envisaged:

- *additional capitalization of the banks at the expense of shareholders in the amount of at least 50% of the difference between the AQR results and the volume of provisions;*
- *provision of problem loans by the Fund of a non-cash paid guarantee for 5 years on a paid basis (3% in annual terms). The guarantee was used as a tool to cover potential risks of a decrease in the value of assets on the banks' balance sheets in accordance with IFRS;*
- *adoption by the banks of strict conditions to limit the payment of dividends to shareholders and bonuses to bank management, issuing loans with a high level of risk, reducing administrative costs and optimizing other non-operating expenses, maintaining the values of financial ratios in accordance with the requirements of the regulator.*

Four banks (ATF Bank JSC, Bank CenterCredit JSC, Nurbank JSC, Eurasian Bank JSC) were included in the Program for increasing the financial stability of the banking sector. During the implementation of the AQR, these banks have done significant work to improve the asset quality. Acceptance of new collaterals, repayment of part of problem loans, recognition of losses through provisions and write-offs led to a significant improvement in the capital adequacy situation relative to the AQR results given in the report as of April 1, 2019 (the results are shown in subsection 4.3 of the Report).

4.5 Corrective action plans

Based on the AQR results, no direct claims were made against the participating banks to adjust their net worth or to create additional provisions. At the same time, the subsequent introduction of approaches, practices, methodologies used in the framework of AQR into practice will lead to the improvement of all business processes of financial accounting and risk assessment in banks.

For these purposes, in April 2020, the AQR participating banks developed and agreed with the regulator Corrective Action Plans aimed at eliminating the identified deficiencies, with a deadline of completion by the end of 2023.

The Corrective Action Plans are divided into blocks providing individual measures (measures aimed at eliminating specific violations / deficiencies in each bank) and general corrective measures (updating business processes such as business planning, budgeting, risk appetite, etc.).

Specifically, the individual measures include the following adjustments:

- *adjustment of accounting policies and practices in terms of bringing them in line with the international practices and IFRS;*
- *adjustment of lending procedures, underwriting, asset quality (financial analysis of borrowers, calculation of provisions, determination of borrower connectivity);*
- *adjustment of the collateral fair value assessment (selection of approaches to valuation, accounting for discounts and selling costs);*
- *adjustment of collective provisioning models (validation of statistics and models, revision of the default probability indicators (PD) and losses in case of default (LGD), taking into account the AQR approaches);*
- *adjustments of the fair value of financial instruments (independent valuation (IPV), credit risk adjustments (CVA), correct classification);*
- *adjustments of the capital adequacy calculation (exclusion of self-financing, recalculation of risk-weighted assets (RWA)).*

The general measures include assessing the impact and revising the procedures for business planning, budgeting, risk metrics, risk appetite, taking into account the above measures, as well as key performance indicators (KPI) of employees.

The corrective measures implementation will be carried out by the banks in the following sequence:

- *2020: development of draft methodologies taking into account updated approaches (banks have developed methodologies for changing lending procedures, completeness of credit documentation);*
- *2021: coordination of projects with the Agency, approval of updated internal regulatory documents, piloting and preparation of technical specifications for subsequent automation;*
- *2022: completion of piloting and implementation in business processes, beginning of automation;*
- *2023: completion of automation and full implementation of the Action Plans.*

The Corrective Action Plans have a clear consistency in the development procedures and will lead to the improvement of banks' performance depending on the current business models and are aimed at regulating the high level of risk appetite in the framework of lending operations and deficiencies in the underwriting procedures.

The measures envisage not only the targeted elimination of violations and deficiencies, but are also aimed at improving all involved business processes of the bank, starting with a change in the methodology with the subsequent assessment of the effects on the activities of banks, their introduction into internal business processes, data collection, ensuring internal control, minimizing deviations from credit policies, full automation of information systems.

The AQR Corrective Action Plans implementation by the banks is an extremely important part of the overall transformation and refinement of the supervisory process towards advanced risk-based supervision. In general, it can be noted that during the AQR, the basis was formed and the starting point was set for the further implementation of actions aimed at strengthening and developing the banking system of the Republic of Kazakhstan, increasing its ability to withstand crisis phenomena, as well as enhancing the financial system transparency.

4.6 AQR legacy

There was implemented a transition of the regulator to the risk-based supervision since 2019 in order to avoid accumulation of imbalance in banking sector and enhancement of supervision process in the future. Risk-based supervision is based on SREP (Supervisory review and evaluation process) methodology, which is already used in European Central Bank. Usage of the institute motivated supervisory opinion allows to apply preventing correcting measures in early stages.

Regulators in many European countries use SREP methodology, including the Bank of England, the European Central Bank (ECB). The introduction of AQR methodology and stress test enlarged the ECB regulatory practice and other regulator's practice since 2014, thus it is possible to get truthful overview of financial condition of banks and to prevent accumulation of system risks.

The Agency plans to upgrade active supervisory process taking into account the best international practices through the integration to the SREP the results of AQR and regulatory stress testing.

Imperfection of active regulatory reporting, low level of automation in several banks opposes to conduct correct analysis and asset quality assessment due to different sources and channels of information, as well as incomplete list of performances counteract to complete implementation of this process.

Nowadays the Agency continues to upgrade supervisory practices through the introduction of the best international practices in the field of risk assessment of banking sectors involving the use of advanced analytical tools. Particularly, the Agency plans to conduct operations in the field of automation of supervisory process and regulatory reporting using the elements of Big Data. Besides, future arrangements on enhancing Agency's and banks' professional competences will help to integrate in supervisory process AQR's key elements and to increase preventive and quality assessment of risk management practice in banks.

Based on the results of the work carried out, additional amendments will be made in the legislation on supervisory process, as well as arrangements on advancing regulatory reporting and enhancing sensitivity of models and quality of results.

In addition, the Agency plans to integrate AQR's key elements to the supervising process. Thus, as a target model annual AQR is planned to be held without the participation of auditors, independent appraisers and consultants, but maintaining statistical accuracy of results and covering all banks in the coming 3-5 years.

The Agency will apply basic AQR model before its transition to target model that focuses on concentration on key risks using limited bank data and application of existing in regulatory reporting and alternative resources of indicator data.

When certain cycles of economic development or remarkable improvements in the sector will be completed, the full-fledged independent assessment of the asset quality is expected to conduct.

V

Credit risks of the banking sector

5.1 Loan portfolio quality

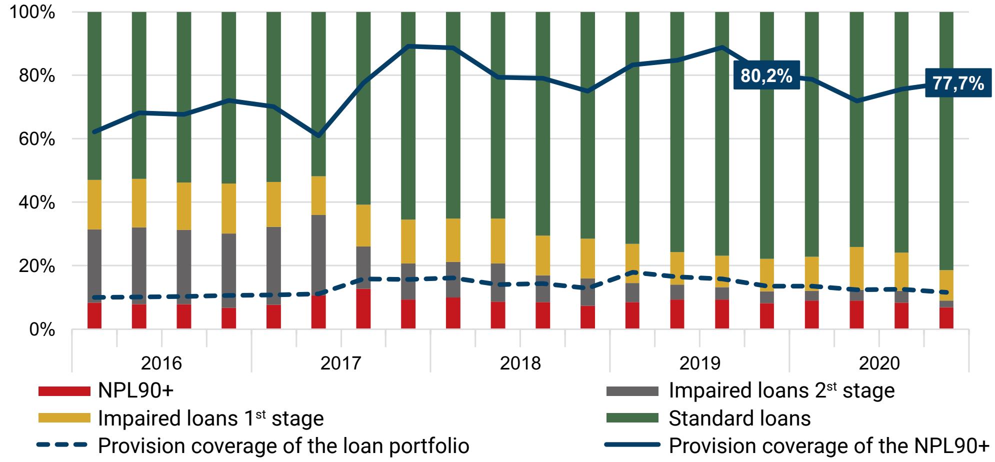
The quality of loan portfolio improved over the reporting period as the result of full-scale AQR completed in 2020 as well as due to the introduction of prudential regulatory easing designed to liberate the capital and liquidity of the banks due to realized risks of the COVID-19 pandemic. The reduction in the number of the problem loans happened mainly due to banks taking measures to improve the asset quality during the introduction of AQR, self-regulation of problem loans by certain banks during merger & acquisition processes and removal of insolvent banks from the system. The rate of loan portfolio provisions has decreased slightly and is still not high enough to cover expected credit losses.

According to the results of 2020, the volume of problem loans has decreased from 22,1% to 18,6%, that include NPL90 + and impaired loans according to the assessment of the National Bank[8], particularly, the share of NPL90+ decreased from 8,1% to 6,9%, the share of problem loans decreased from 14,0% to 11,7%. However, in accordance with the regulatory report of banks, the share of loans that belong to the 3rd stage according to IFRS was 16,9%. In 2020 the rate of the loan portfolio provisions declined from 13,5% to 11,6%, coverage of NPL90+ loans by the provisions declined from 80,2% to 77,7% due to the measures taken by the large banks to improve the assets quality through accepting additional pledges and receiving payments from the part of problem loans within the framework of the Program to increase financial stability *(Chart 5.1).*

The asset quality review (AQR) accomplished in 2019 remarkably improved the loan portfolio quality. Particularly, taking into account the results of AQR, banks took measures to increase the asset quality, that required accepting additional collateral for a number of assets, collecting payments on a number of loans that are in a state of default, and writing-off part of problem loans from the balance sheet. In addition, within the framework of the Program to increase the financial stability of the banking sector, a number of bank stakeholders provided additional capital injections. This process allowed to recognize a significant share of credit losses through creating additional provisions, repayment of problem loans and accepting additional collateral for loans *(Chart 5.2).*

Chart 5.1 ***The quality of the loan portfolio improved. The share of NPL90+ and impaired loans decreased with the increase of standard loans***

The structure of loan portfolio

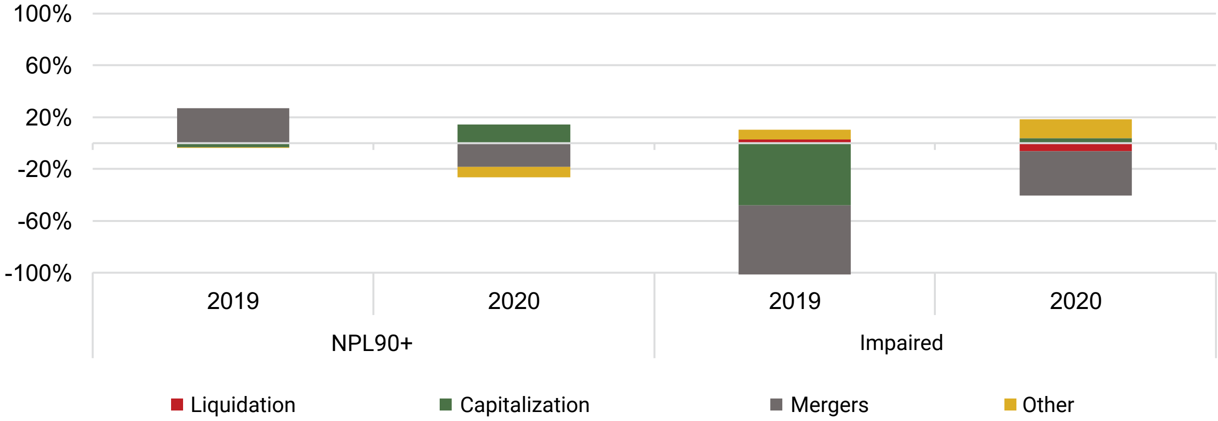


Source: *STB reports, Credit registry, National Bank assessment*

Note: *1) NPL90+ - non-performing loans according to bank reports; impaired loans – poor loans according to National Bank estimates, without taking into account NPL90+; 2) The chart is based on banks regulatory reporting, taking into account relevant data for previous years that was updated by certain banks due to technical errors made in those documents*

8 For credit risk analysis, indicators of loan quality (without taking into account repurchase agreements and interbank loans), calculated by The National Bank based on the Credit registry data for each separate loan in accordance with updated methodology were used. In a comparison with the previous year, changes in methodology in current financial stability report of Kazakhstan, reviewed quality assessment criteria's of problem loans for both corporate and retail portfolios. However, the division by loan category was maintained. Thus, following notations apply: **NPL90+** - means loans with overdue principal debt and/or accrued interest of over 90 days (non-performing loans), according to bank reports; impaired loans (**1st, 2nd grades**) – mean poor loans by the National Bank estimates, with no cash flows on principal debt for a long period and a high accumulated accrued interest. **Second grade** - are the timpaired loans otal v have olume of NPL90 + and impairlower quality, problem loans ed; standard loans - are the loans not categorized as impaired or NPL 90+ loans.

Chart 5.2 ***Loan portfolio quality improved due to measures taken by banks to increase the quality of assets and merger processes of certain banks***
Contribution to the loan portfolio changes



Source: *Credit Registry, National Bank assessment*

Note: *1) Liquidity – JSC "Tengri Bank" license revoked in 2020; Integration – JSC "First Heartland Jysan Bank" was created in 2019 through the merger of JSC "Tsesnabank" and JSC "First Heartland Bank", that also bought by JSC "ATF Bank" at the end of 2020; With capital injections – 4 banks-participants of the Bank stability improvement program*

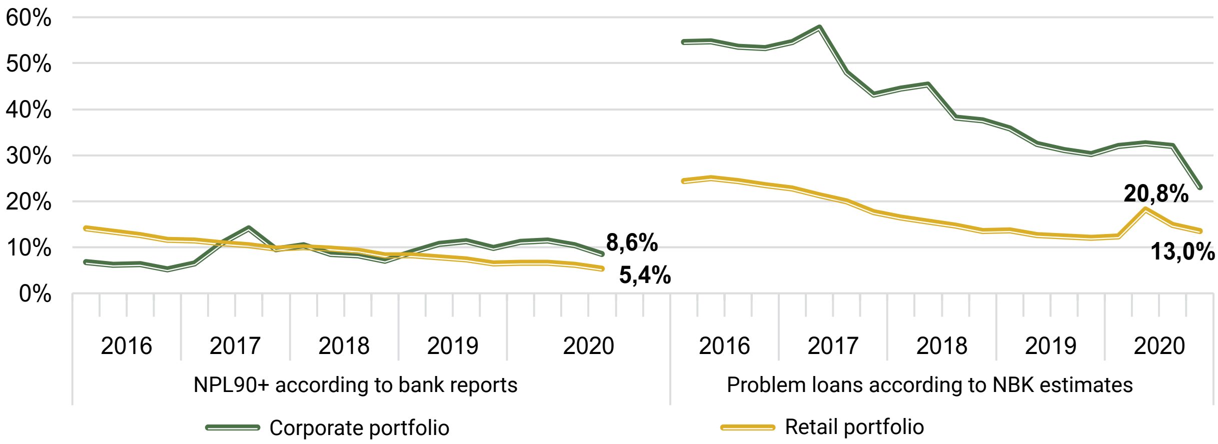
In addition, over the reporting period, 2 significant agreements were made in the banking sector. Particularly, JSC "First Heartland Jysan Bank" was created in 2019 through the merger of JSC "Cesnabank" and JSC "First Heartland Bank" that also bought the controlling stock of the JSC "ATF Bank" at the end of the 2020. Above-mentioned agreements made positive effect to the quality of loan portfolio of these banks, including decreasing the share of impaired loans and NPL90+ loans.

At the system level, JSC "Tengri Bank's" license revoke slightly improved the quality of loan portfolio, during the period of license revoke the share non-performing loans comprised 83% from the loan portfolio of the bank.

Historically significant level of credit risk is concentrated in the corporate segment. The quality of corporate portfolio improved at the end of 2020; however, it was lower than retail sector. The share of NPL90+ corporate loans was 8.6% according to bank reports, but by the National Bank estimates, the volume of NPL90+ and impaired loans in the corporate portfolio was high and reached 23.1%, despite its' decrease by 7.2 percentage points from 2020 *(Chart 5.3)*.

The number of impaired loans of corporate portfolio decreased due to measures taken by the banks within the framework of AQR, namely the write-off of problem loans and debt restructuring or refinancing of borrowers.

Chart 5.3 ***The quality of corporate loans improved, but it is lower than retail sector***
The share of problem loans



Source: *STB reporting, Credit registry, The National Bank estimates*

Note: *NPL90+ - non-performing loans according to bank reports; problem loans – poor loans according to the National Bank estimates, including NPL90+*

5.2 Impact of COVID-19 on the quality of the loan portfolio

The introduction of emergency regime under the pandemic of COVID-19 made significant impact to all spheres of economy. Enforced suspension of enterprises, compulsory isolation with the severe restrictions on citizens' movement led to the reduction of population mobility, reduced demand for goods and services. In particular, corporate sector, small and medium enterprises were the most vulnerable.

As a result of reduced turnover and loss of revenue, companies needed more loans in order to provide continuous production. The banking sector faced a situation where, on the one hand, borrowers were in dire need of loans, and on the other hand, the level of credit risks increased.

After the introduction of restriction measures to tackle the pandemic, the Government together with the National Bank and Agency created a broad package of anti-crisis measures to support real sector of the economy and population, the package also took into account payment delays for temporary reduction of debt burden in loan services.

In order to maintain stability of banking sector and of the ability of banks to lend to the real sector of economy, the Agency took measures on temporary regulative easing focused on reduction of pressure to the capital and liquidity of banks through simplifying prudential requirements during pandemic period. These measures allowed banks to avoid the reduction in the amount of credits, thus it maintained business activity in the economy.

At the same time, in the period between 16th March and 1st October 2020, to reduce the debt burden of the population and small and medium enterprises, including individual entrepreneurs that suffered the most from imposition of restrictive quarantine measures, an opportunity to delay the loan repayment up to 90 days was given.

This measure allowed borrowers to reduce debt burden during the support period, for the banks it allowed to gradually recognize the deterioration of the quality of the credit portfolio. Particularly, in accordance with the regulatory exemptions, if, based on an assessment of the relevant indicators of the counterparty's financial condition, it was expected that the borrower's cash flows would be sufficient to cover contractual obligations under the loan (including principal debt and remuneration), borrowers who received a payment delay, could not be recognized by banks as individuals having financial difficulties[9].

Socially vulnerable population groups, people who receive targeted social assistance and unemployed people, those who registered in local employment authorities could receive payment delays automatically (without presenting offer or other relevant documents, with the borrower's consent). Other borrowers were obliged to submit applications to explain the reason of payment inability (temporary unemployment, staying in unpaid ordinary leave, termination of employment, suspension of salary payment and etc.).

Representatives of small and medium enterprises, including self-employed entrepreneurs could receive payment delays if their businesses related to the most vulnerable spheres of economy due to introduction of emergency regime or if their business faced financial difficulties[10]. 346 types of businesses out of 12 spheres of economy were restricted, prohibited or suspended because of restricted quarantine measures.

According to the information of the banks[11], in the period between 16th March and 1st October of 2020 12,5 thousand legal entities and 19 million physical entities received loan payment delays, thus shares were 41,5% and 33% out of total amount of borrowers, respectively. The total amount of loan payment delays was about 209 bln tenge for legal entities and 268 bln tenge for physical entities. In total, this measure has been implemented for 28,8% of small and medium enterprises and self-employed entrepreneurs or 1,1 tln tenge, and 29,6% of retail portfolio or 2,0 tln tenge.

To assess the COVID-19's impact to the quality of loan portfolio the National Bank analyzed the quality of banking portfolio in terms of the amount of borrowers that received payment delays from 01.03.2020 (before introduction of support measures) to 01.02.2021 (the end of support measures)[12], as in terms of the volume of loan debt and so at the level of the amount of contracts. In case of high level of uncertainty of pandemic development and its impact to

[9] Resolution of the Board of the Agency of the Republic of Kazakhstan for the regulation and development of the financial market dated May 28, 2021 No. 68 "On amendments to certain regulatory legal acts of the Republic of Kazakhstan on the regulation of the financial market"

[10] Order of the Chairman of the Agency of the Republic of Kazakhstan for the regulation and development of the financial market dated March 26, 2020 No. 167 "On approval of the Procedure for suspending payments of principal and interest on loans to the population, small and medium-sized businesses affected by the state of emergency"

[11] According to the information of banks provided to the Agency during the pandemic

[12] The analysis is made based on information provided by banks on borrowers, who received governmental support measures.

borrowers' ability to pay, in order to conduct objective assessment, the analysis was made on the basis of the amount of principal debt, not the amount of delayed payments.

In the context of the sectoral structure of the corporate portfolio, a significant proportion of borrowers who received a deferment accounted for the sectors of trade - 24%, real estate - 20%, industry - 13% and services - 11%– 11% *(Chart 5.4)*.

In the context of the structure of the retail portfolio, significant share of borrowers, who received payment delays, were consumption collateral free loans -40% and mortgage loans – 28% *(Chart 5.5)*.

Chart 5.4 ***Majority of receivers of payment delays were borrowers from trade and real estate sectors in corporate portfolio***

Corporate portfolio

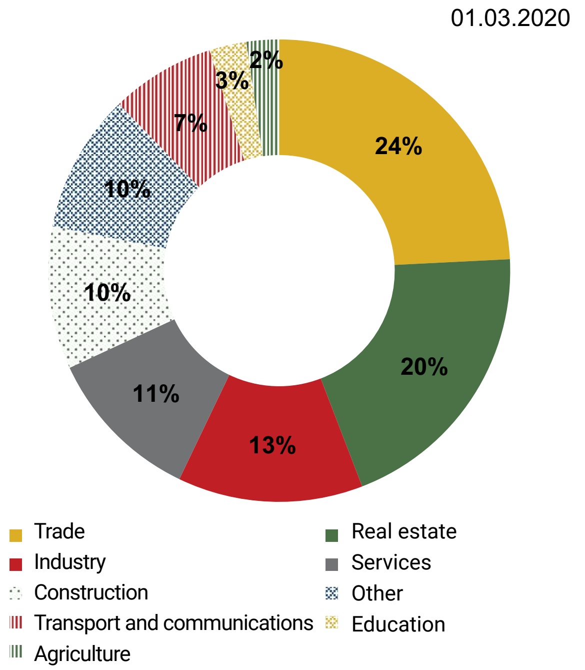
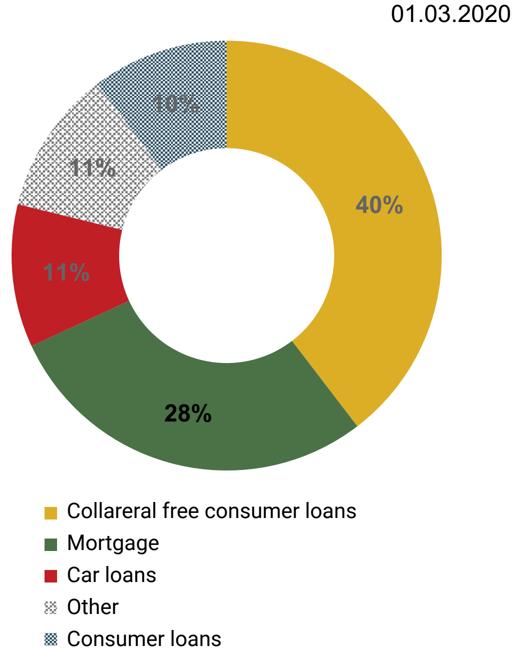


Chart 5.5 ***Collateral free loans and mortgage loans of retail portfolio were the most dependent from support measures***

Retail portfolio



Source: *Credit registry, National Bank assessment based on banking data*

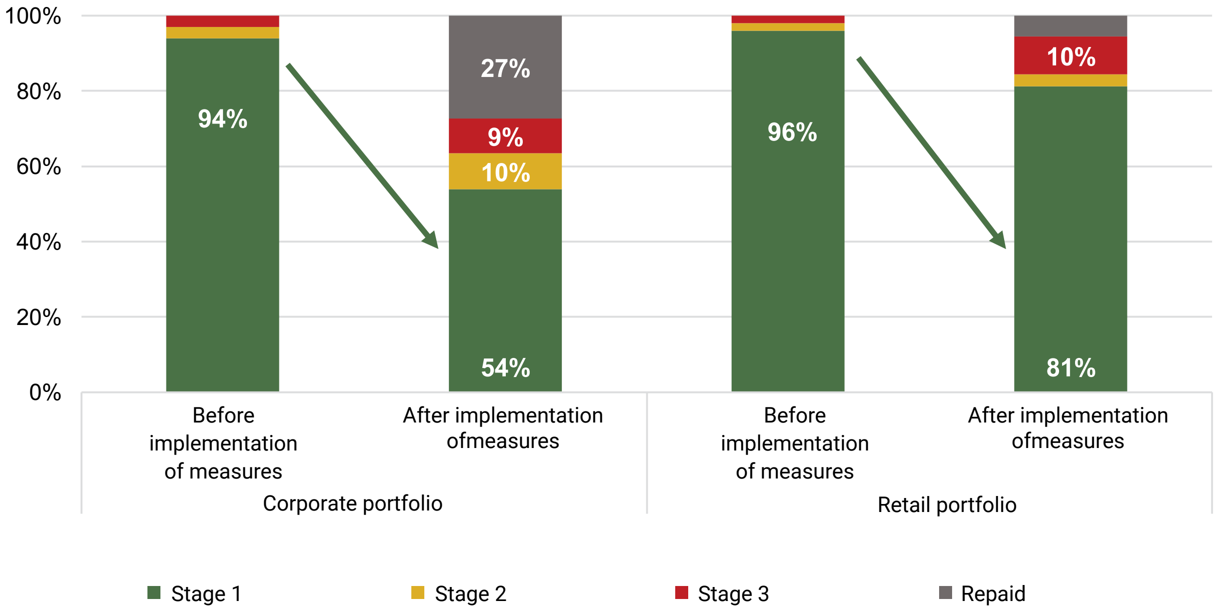
Note: *Trade – wholesale and retail trade, automobile and motorcycle repair works; Real estate – real estate operations; Industry – manufacturing, mining and quarrying; Services – residential services and nutrition, health and social services and other types of services; Transport and communications – transport and storage, information and communication; Others – administrative and application services, professional, scientific and technical activity, art, entertainment and vacation, water supply, sewerage system, control over waste collection and distribution, financial and insurance activities, electricity supply, gas supply, steam and air conditioning, administration of government and defense; compulsory social security, activities of households activity employing domestic workers and producing goods and services for their own consumption*

Payment delay permissions were mainly demanded by borrowers, whose loans were assigned by banks to the 1st stage under IFRS, or 2nd and 3rd stages, that did not have overdue debts for more than 90 days at the time of quarantine (16th of March 2020).

The quality of loans with payment delays declined in terms of the number of contracts during the analyzed period – the share of loans at 1st stage reduced, in corporate loan portfolio it reduced by 40,1 pp, as well as in retail loan portfolio by 14,8 pp *(Chart 5.6)*. However, the share of loans, that refers to the 2nd and 3rd stages in small and medium enterprises increased by 7pp and 6 pp, in retail portfolio by 1 pp and 8 pp, respectively. Despite of regulatory exemptions in terms of allowing banks not to form provisions for the duration of the pandemic, the results of the reclassification of loans reflect the potential volume of provisions required for the formation of anti-crisis measures upon completion.

In the context of declining payment abilities of borrower's, a significant amount of repayment of corporate loans (27%) could be managed at the expense of borrowers' own funds, but also at the expense of refinancing. In the latter case, the risks remain on the balance sheets of banks, which may lead to an increase in the expected credit losses in the future.

Chart 5.6 ***The quality of corporate and retail loans that referred to payment delays decreased***
The share of loans by the amount of contracts



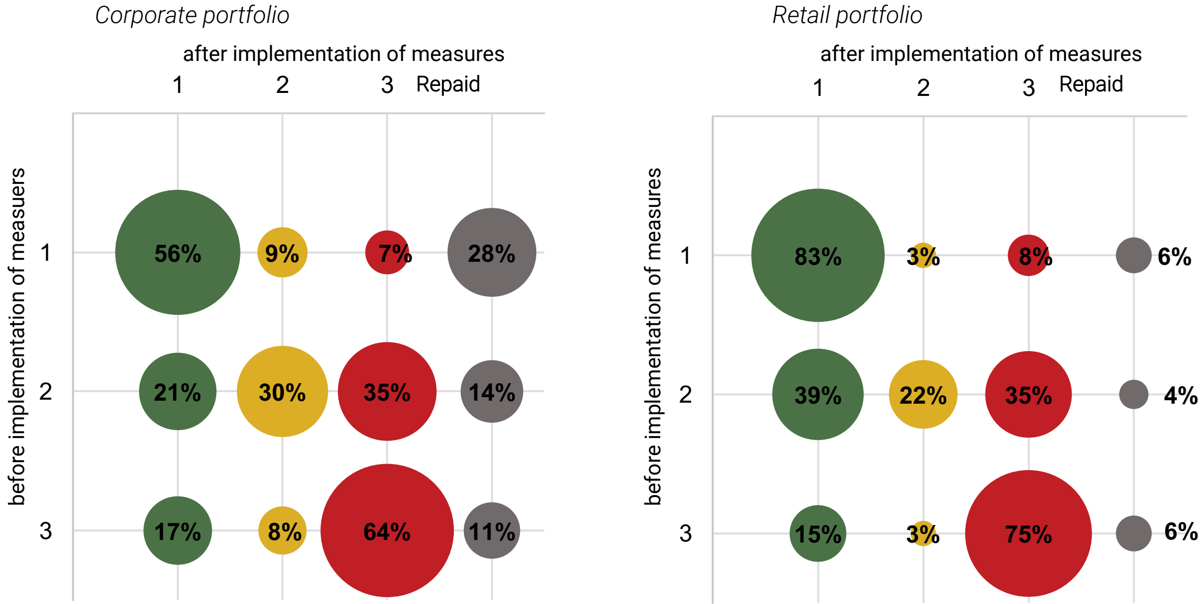
Source: *National Bank assessment based on banking data*
Note: *The period of payment delay validity 01.03.2020-01.02.2021*

The migration of loans between the stages of impairment in terms of the volume of loan debt showed that the share of 1st stage corporate loans declined by 56% during the payment delays period due to the reclassification of loans to the 2nd stage (9%) and 3rd stage (7%) or repayment (28%) *(Chart 5.7)*. The share of the 2nd stage was insignificant and accounted for 3% during payment delay period. At the same time, the quality of certain loans of 3rd stage improved, mainly because of borrowers' repayment in advance during payment delay period.

The quality of loans subject to deferred payments, in retail portfolio was higher than in corporate portfolio. The share of retail loans of 1st stage is maintained at the level of 83% after implementation of support measures.

The payment schedules of borrowers were revised by postponing the repayment date to a later date under the new payment schedules during the period of payment delays provided by banks. However, during the payment delay period banks continued accrual of interest, borrowers were required to pay at the end of restriction period; as a result, it affected the increase of total amount of debt burden.

Chart 5.7 ***Lack of sufficient provisions for loans reclassified in 2nd and 3rd stages may affect the quality of the loan portfolio and the stability of banks because of provided delays***



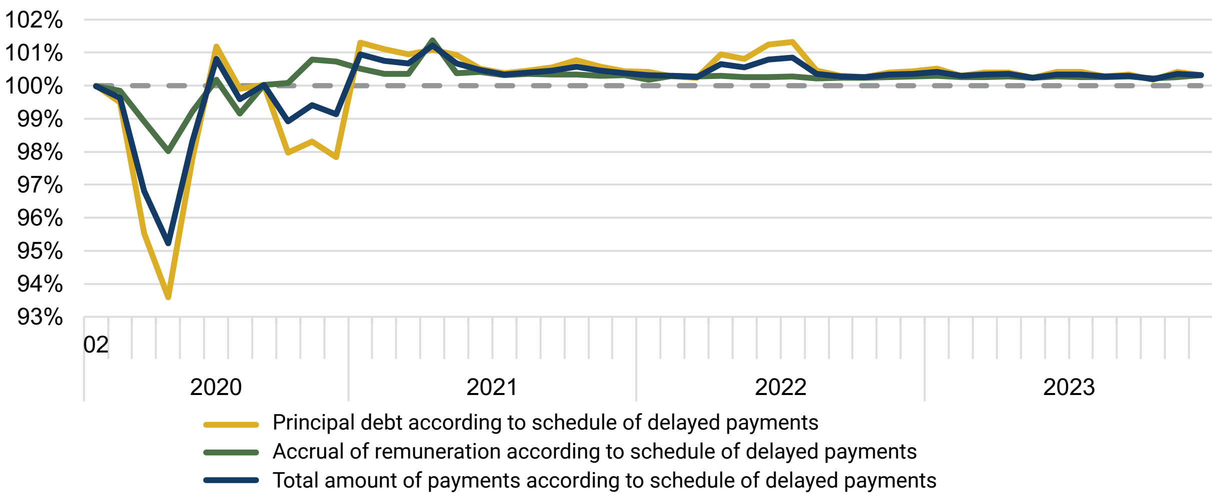
Source: *National Bank assessment based on banking data*

Note: *The area of the circle is proportional to the principal debt in terms of impairment stages. 1) Vertical axis demonstrates loan status before implementation of support measures, on 01.03.2020: stage 1 – 94% / 96%, stage 2 – 3% / 2% under corporate / retail portfolio; 2) Horizontal axis demonstrates loan status after implementation of support measures and shows loan migration taking into account divided shares of impairment stages*

The largest decrease in the burden in terms of amounts payable by SMEs occurred in May - during the period of granting the first deferrals, as well as in November and December 2020 - during the period of granting the second deferrals *(Chart 5.8)*. The main part of delayed payments was postponed to the 1st and 2nd quarters of 2021, despite that the amount of delayed payments were insignificant during this period.

Chart 5.8 ***Amount of payments that banks did not receive was distributed to the subsequent periods***

Revision of payment schedules of corporate loans that received payment delays



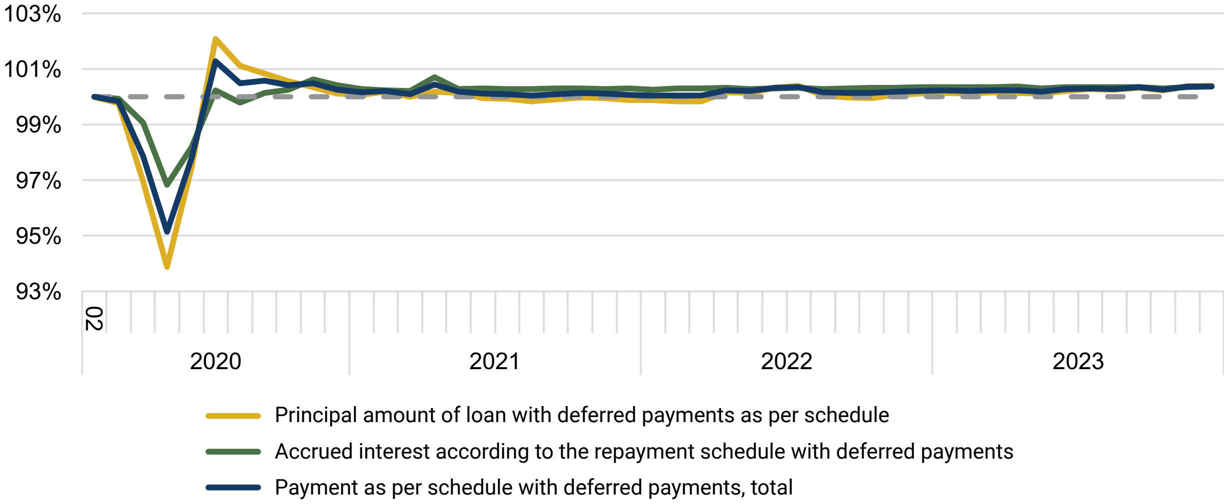
Source: *Credit registry, banking data, National Bank assessment*

Note: *To analyze the impact of received payment delays to the borrowers' debt burden, the National Bank carried out assessment through choosing a random sample of borrowers in the corporate and retail segments, whose payment schedules changed during the payment delay period. Payment schedules before and after support measures were compared to comply a chart. Payment schedules after implementation of support measures have deviation from payment schedule before implementation of support measures that were considered as a 100% base*

The maximum level of debt burden was in August 2020 due to the short term nature of support provided to retail customers. *(Graph 5.9)*.

Graph 5.9. ***The distribution of deferred payments occurred mainly within 2020, and subsequent changes in repayment schedules are insignificant***

Payment schedule of retail borrowers who received a deferral



Source: *Credit registry, Information of second-tier banks, The National Bank assessment*

Note: *To analyze the impact of received payment delays to the borrowers' debt burden, the National Bank carried out assessment through choosing a random sample of borrowers in the corporate and retail segments, whose payment schedules changed during the payment delay period. Payment schedules before and after support measures were compared to comply a chart. Payment schedules after implementation of support measures have deviation from payment schedule before implementation of support measures that were considered as a 100% base*

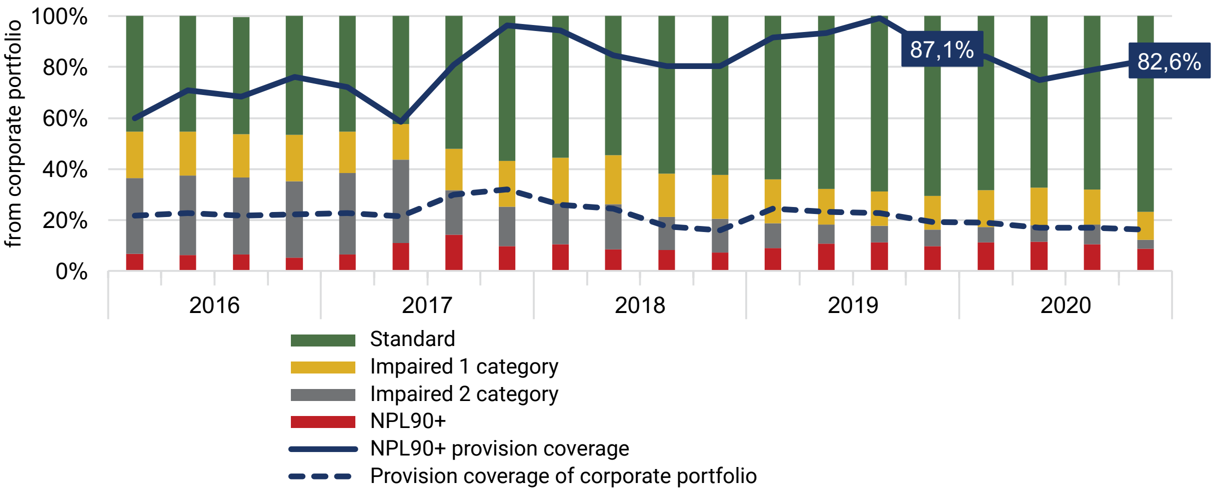
Thus, implemented support measures allowed to reduce social tensions in the country and minimize credit risks in short period of time during the epidemiological situation. Coronavirus pandemic still takes place, so it is early to make any conclusions on efficiency of any governmental support measures. However, if the government implements support measures regularly, it may demotivate people and businesses to pay their debts, affect to borrowers' credit paying discipline and lead to accumulation of system risks.

5.3 The quality of corporate portfolio

The quality of corporate loan portfolio continued to improve. The significant amount of problem loans under analyzing period were settled by certain banks during the process of AQR implementation. Besides, implemented anti-crisis measures allowed banks not to deteriorate the quality of debt of corporate borrowers, whose business suffered from pandemic COVID-19. Massive granting of loan payment deferment increases the risk of accumulation of potential credit losses, which was not reflected in the banks' reporting for 2020. Further deterioration of economic conditions in a state of high uncertainty about the prospects for the spread of the pandemic may lead to borrowers' disability to repay debts, who had stable financial condition before coronavirus period.

The number of problem corporate loans declined in 2020 – NPL90+ decreased from 9,8% to 8,6%, impaired loans – from 19,6% to 14,6% *(Chart 5.10)*. Despite improvement of the quality of corporate portfolio, the level of borrowers' credit risk in real sector remains high, problem loans accounted for 23,2% from corporate portfolio at the end of 2020. However, NPL90+ provision coverage slightly decreased from 87,1% to 82,6% in 2020.

Chart 5.10 ***Share of problem loans in corporate portfolio decreased by clearing bank balance sheets***
Corporate loan portfolio

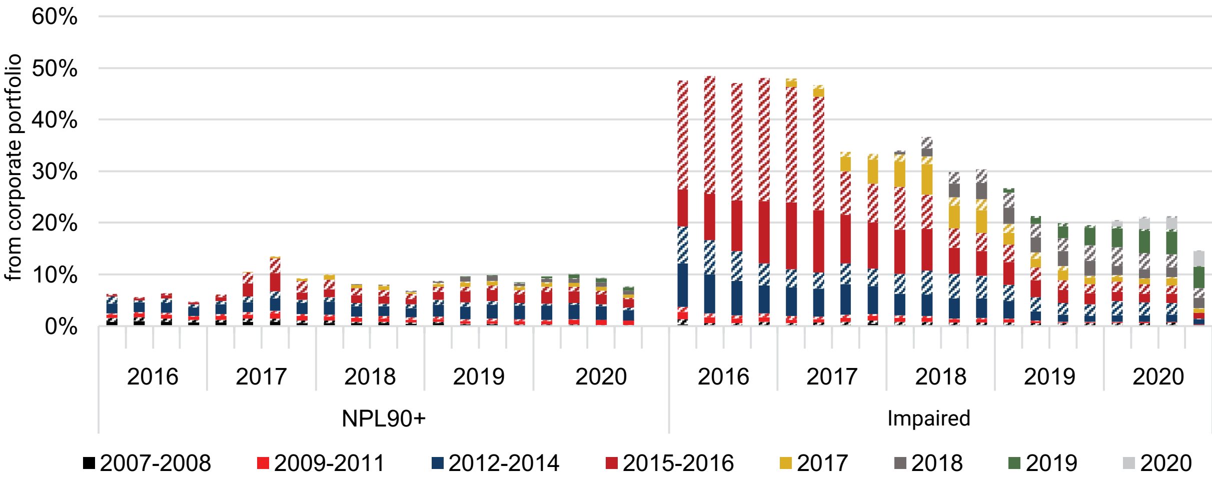


Source: *STB reporting, Credit Registry, National Bank assessment*

Note: *1) NPL90+ - non-performing loans according to bank reports; impaired loans – poor loans according to the National Bank estimates, without NPL90+; 2) The chart is based on the bank reports, relevant data updated by banks for previous years included*

After implementation of AQR and realization of anti-crisis measures to prevent the increase in the level of non-performing loans due to COVID-19 pandemic, in the structure of problem corporate loan portfolio the largest volume was NPL90+ loans issued in tenge for the period 2012-2014 (1.9%), as well as doubtful loans issued in tenge in 2019 and 2020 (4.1% and 2.9%, respectively) *(Chart 5.11)*.

Chart 5.11 ***Problem loans of previous years still remain in the corporate loan portfolio***



Source: *Credit registry, The National Bank assessment*

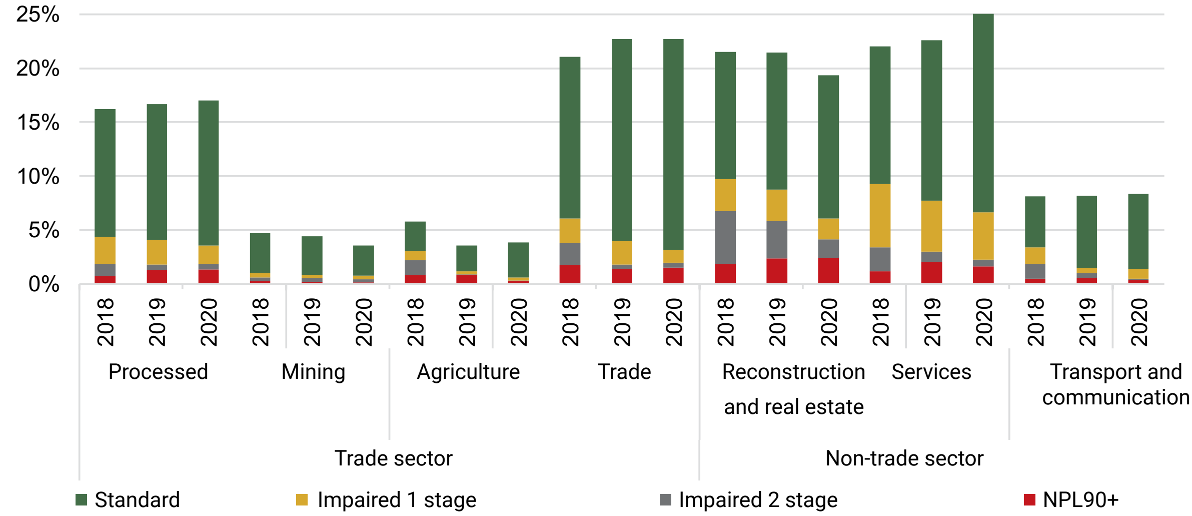
Note: *the patterned fill corresponds to loans issued in foreign currency*

In the context of the sectoral structure of the corporate portfolio, a significant share of problem loans has historically remained in sectors of the non-tradable sector of the economy that are oriented to the domestic market. Unlike previous crises, the pandemic had a significant impact not on the financial system, but on the real sector of the economy and trade, transport and service industries turned out to be the most vulnerable during the quarantine period. *(Chart 5.12)*.

However, according to outcomes of 2020, banking portfolio in all spheres of economy noticed improvement in the quality of problem loan portfolio. Particularly, the share of problem loans in non-traded sector decreased from 21,9% to 17,3%, in traded sector from 6,1% to 5,0%. Prevention of growth of NPL90+ indicator in banks took place because of temporary regulatory easing, that allowed to reduce the pressure to the capital and liquidity of banks.

At the same time, the main source of uncertainty is continuous prolonging of pandemic and the possibility of introducing new restriction measures in case of emergency situations due to spread of coronavirus infection. Recovery of separate segments be quite lengthy because of remaining epidemic risks. Because of lockdown and reduced demand, a number of enterprises from the most affected sectors of the economy may experience difficulties with servicing their obligations. In these conditions, banks will need additional provisions for this type of borrowers.

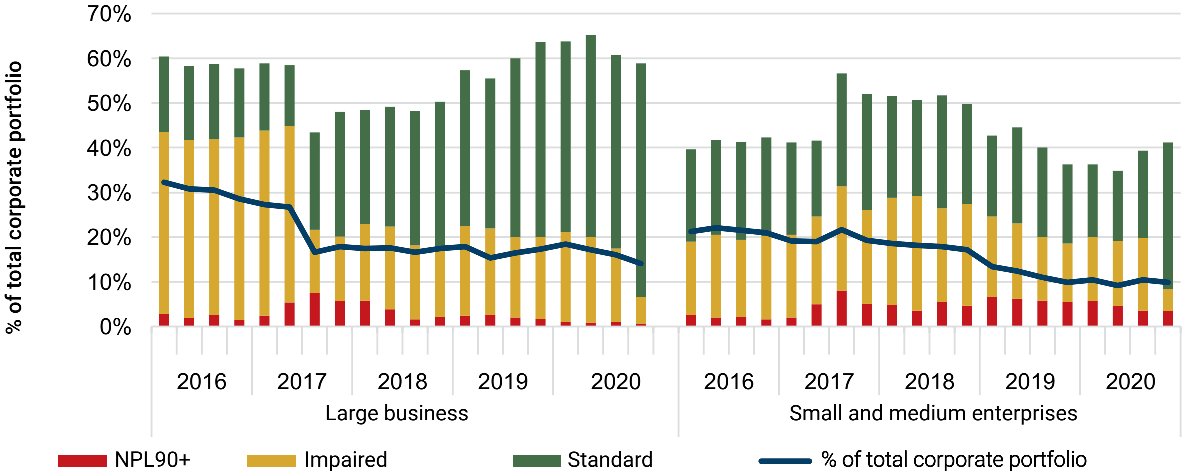
Chart 5.12 ***Problem loans of corporate portfolio remain in non-tradeable sectors***
The share in corporate portfolio



Source: *Credit registry, The National Bank assessment*

Over the past five years, the foreign currency portfolio of corporate loans has significantly decreased and in 2020 amounted to about 24% of the corporate portfolio (52% in 2015). In the context of business segments, the decrease in foreign currency loans of large businesses over five years amounted to 26.9 percentage points (from 57.3% to 30.4%), small and medium-sized businesses - 27.6 percentage points (from 46.0% to 18.4%). At the end of 2020, problem loans in the foreign exchange portfolio of large businesses amounted to 6.6%, while the quality of the foreign exchange portfolio of SMEs is worse - the share of problem loans was 8.4% *(Chart 5.13)*.

Chart 5.13 ***There is a decrease of problem loans in corporate foreign currency portfolio***
Foreign currency portfolio



Source: *Credit registry, The National Bank assessment*

Large Borrowers and Concentration of Credit Risk

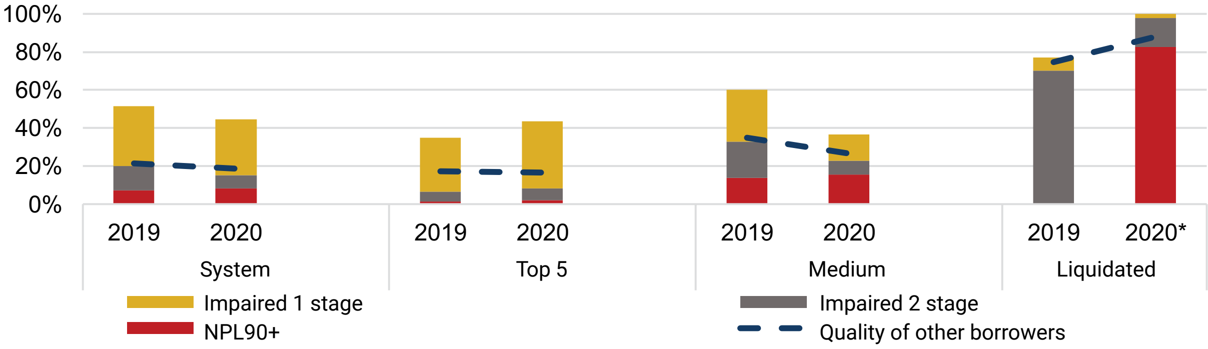
Bank portfolio dependence from concentration of top borrowers in the system is still high and it is indicated that there is a lack of high quality borrowers in the economy. The total share of top 25 corporate borrowers in each bank was 45% in 2020, but in terms of banks, this indicator was in the range from 30% up to 100%. The continued excessive concentration of large corporate borrowers in individual banks indicates exposure to credit risk, its' implementation can lead to significant losses in the case of their default, both at the level of an individual bank and the system as a whole.

The quality of loans of top 25 borrowers in each individual bank improved at the end of 2020. The share of their problem loans was 44,5% at the end of 2020 out of their total debt, it decreased to 7,0 pp compared to previous year. Despite of improved situation, their quality remains significantly lower compared to the loans of smaller borrowers. *(Chart 5.14).*

The quality of large borrowers' portfolio is worse than other borrowers' portfolio, mainly in the group of medium banks. However, the decrease of large borrowers' problem loans in the group of medium banks was 23,5 pp, other borrowers – 8,3 pp in 2020.

There still exists a problem to diagnose a real quality of large borrowers in the report. JSC "Tengri Bank", which was liquidated in 2020, vividly demonstrated this problem – the level of problem loans of large borrowers was 77,0% at the end of 2019.

Chart 5.14 ***Quality of large borrowers is worse compared to other borrowers. The risks of large borrowers are not fully demonstrated by banks in reports***
Portfolio structure of top 25 corporate borrowers of banks



Source: *Credit registry, The National Bank assessment*

Note: *Bank groups are calculated by loan portfolio size as of 01.01.2021 (medium banks include 15 banks); liquidated* - are the banks deprived of a license in 2020. The quality of large borrowers in liquidated banks is presented according to last report date before liquidation (01.09.2020). The quality of other borrowers is - the share of problem loans in the portfolio of borrowers, not including 25 largest ones*

5.4 Retail portfolio

Anti-crisis measures taken by government support under the pandemic circumstances allowed to reduce social tensions among population, related to the decrease of salaries during the period of lockdown. As a result of search for alternative sources of income the demand for consumer loans has increased. It led to urgent recovery of retail portfolio to the levels prior to corona virus crisis. The quality of retail portfolio remained high – the level of problem loans declined in all segments of retail loans in 2020.

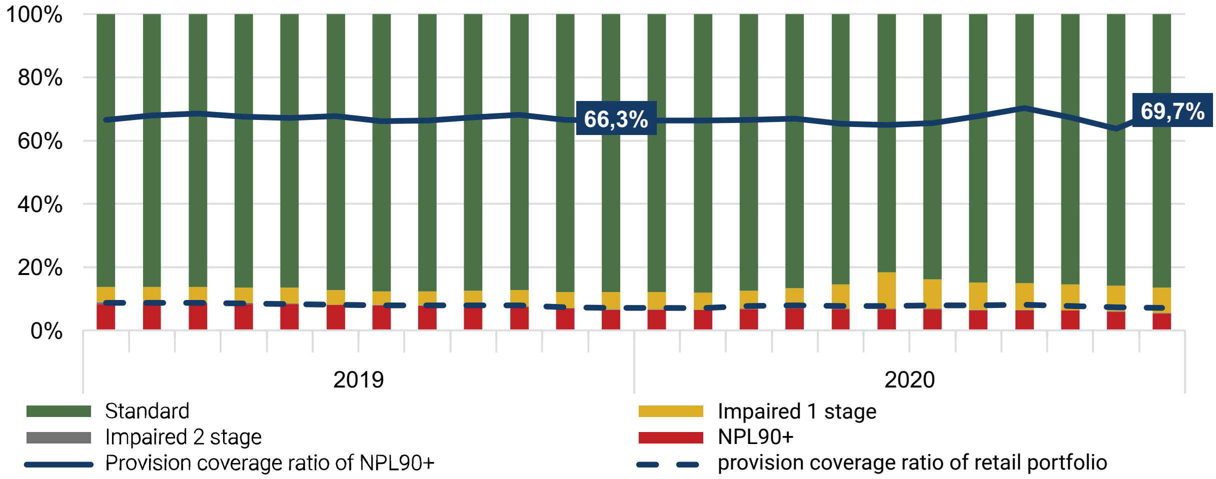
The share increase in retail lending of loan portfolio requires more moderate attitude to the risk and accurate monitoring and risk control that is peculiar to retail portfolio. In this case, not only socio-economic factors should be taken into account, but also excessive situations, as COVID-19, that may affect borrower's solvency.

Increased risks of retail portfolio due to aggressive credit policy made by banks in previous years were smoothed down by more moderate increase of portfolio in 2020 – 12,6% against 26,8% in 2019. The lowest increase was in April-May 2020 in the period of introduction of restriction measures that led to significant decline of population mobility and business activities (more detailed information is provided in Credit Activity part of this Report).

Enforced population mobility decline led to the decrease of population income and led to the increase of credit risk in the retail portfolio of the banks, due to introduction lockdown in 2020.

Government support measures in the form of deferral of loan payments made it possible not to worsen the portfolio quality metrics in regulatory reporting. In particular, at the end of 2020, the share of overdue loans decreased from 9.9% to 8.8%, including the NPL90+ level from 6.4% to 5.4% *(Chart 5.15)*. At the same time, due to the absence of repayments on loans during the period of deferred payments, the level of doubtful loans increased from 5.5% to 8.2%. The average coefficient of retail portfolio coverage by provisions was 7,6% in 2020. The decline of NPL90+ loans allowed banks to slightly decrease the level of set up provisions on them without any considerable changes in the level of coverage.

Chart 5.15 ***Quality of retail portfolio remains high, however, the level of impaired loans increased***
Retail portfolio



Source: *STB reporting, credit register, National Bank assessment*

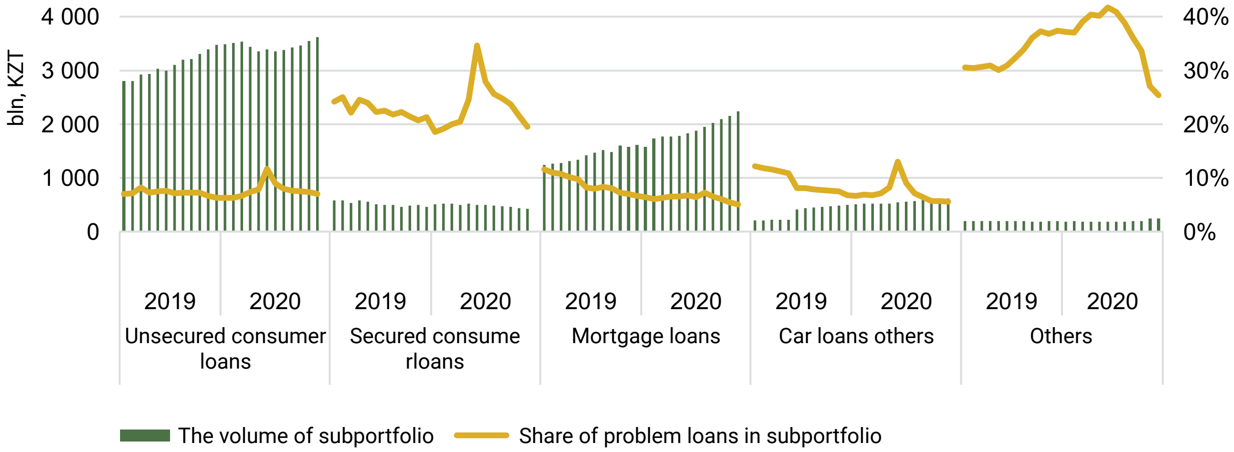
The largest share of problem loans was observed in the segment of secured consumer loans. Thus, the share of problem loans in this segment by the end of 2020 amounted to 19.5%. At the same time, by mid-2020, the share of problem loans in the segment reached 34.6%. Historically, collateralized consumer loans have been of the lowest quality, reflecting past poor credit decisions and banks' weak risk management.

In the segment of mortgage loans, the trend of quality improvement continued in 2020, the share of problem loans decreased from 6.4% to 5.0%. The improvement in the quality of loans in this segment was facilitated by the tightening of approaches by banks to assessing the value of collateral based on the AQR results, which will also have a positive impact on the quality of loans issued in the future.

The quality of unsecured consumer loans remained at a high level, despite a significant increase in problem loans by mid-2020 (11.7% as of 07/01/2020) and their increase by 0.7 pp to 7.0% during 2020. The peculiarity of consumer unsecured loans, expressed in their short time to maturity and high turnover, determines the low concentration of credit risks. Banks' business model of selling short-term, standardized products and services to more consumers helped build a broad customer base, allowing them to select quality borrowers more carefully. In view of the deterioration in the financial condition of the population, in the context of the spread of the pandemic, unsecured loans have become an alternative tool for obtaining funds with a decrease in the main sources of income. As a result, in the second half of 2020, the volume of consumer unsecured loans recovered to the level of 2019 *(Chart 5.16)*.

The problem loans decreased from 6,7% to 5,5% in the segment of car loans in 2020, because of the increasing number of newly issued loans.

Chart 5.16 ***The level of problem loans decreases after the increase because of pandemic, while for the secured loans and other loans it remains high***

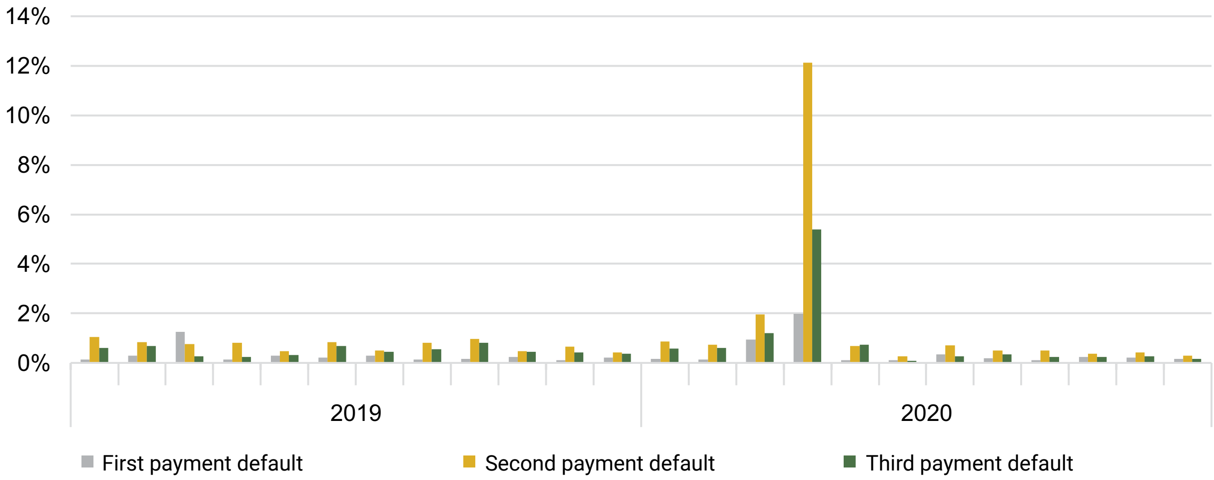


Source: *Credit registry, The National Bank assessment*

Note: *the mortgage loan includes residential mortgage loans and mortgage loans*

The share of loans with overdue payments increased in the segment of consumer loans due to the decrease in population's solvency in the period of quarantine *(Chart 5.17)*. Thus, the ratio of the volume loans with the default of the first payment to the volume of issuance was 2.0% while the default of the second and third payments reached 12,1% and 5,4%, respectively, in the April 2020. The growth in the share of loans with defaulted payments was the main reason for the increase in impaired loans in segments of the consumer loan portfolio. The subsequent decline occurred both as a result of government support measures and the easing of restrictive measures, followed by a recovery in economic activity.

Chart 5.17 ***Government support measures considerably affected the quality consumer loans payments***
The share of overdue payment of secured loans, unsecured loans and car loans in relation to the issuance of consumer loans



Source: *Credit registry, STB reporting, National Bank assessment*

Note: *loans with overdue first, second and third payment were defined based on the amount of overdue days as of the reporting date. The volume of issuance is determined based on regulatory reporting for loans issued for consumer purposes*

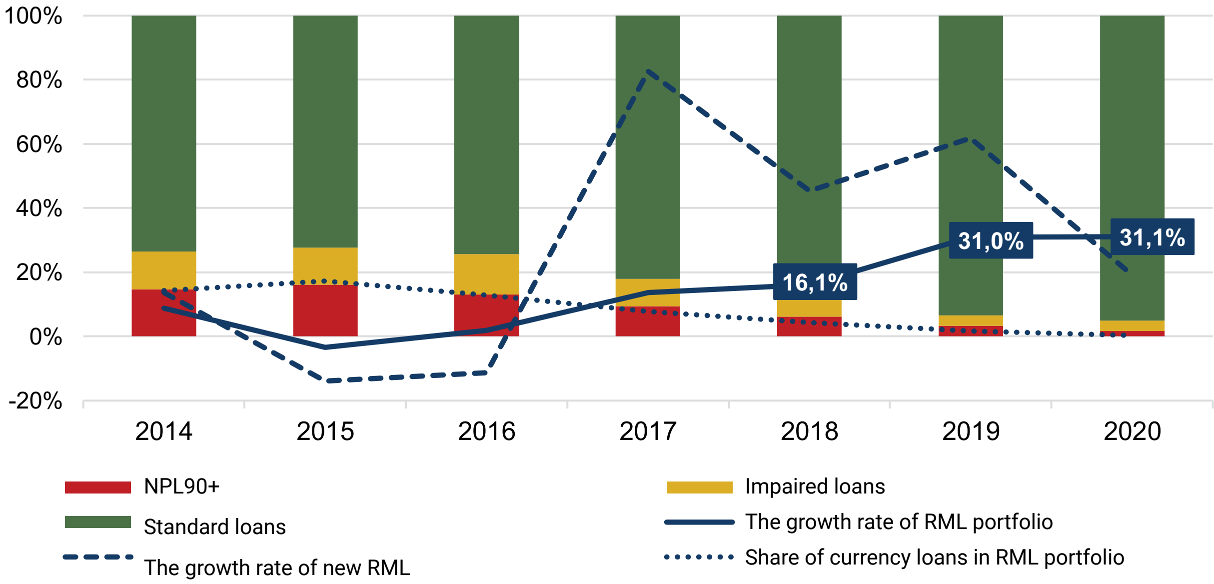
Credit risks of residential mortgage loans

The residential mortgage loan portfolio continues to grow actively in 2020, despite of decrease of business activity in the period of lockdown. However, the quality of residential mortgage loan portfolio considerably improved, mainly due to issuance of new standard loans and government programs on refinancing currency loans.

In 2020, the growth rate of the portfolio of residential mortgage loans (RML)[13] remained high and amounted to 31.1% (in 2019 - 31.0%). The aggressive growth of the RML portfolio was supported mainly by state mortgage programs. Against the background of a decrease in the business activity of the population due to the introduction of strict quarantine measures during the COVID-19 pandemic, the issuance of new RML decreased in 2020 from 55.9% to 18.3% compared to 2019.

The quality of residential mortgage loans portfolio significantly improved in the last 5 years. The share of NPL90+ in residential mortgage loans dropped significantly to 1,7% at the end of 2020 compared to 16,2% in 2015 *(Chart 5.18)*. The quality of problem residential mortgage loans increased thanks the National Bank's program on refinancing residential mortgage loans taken in the foreign currency. Consequently, the share of currency residential mortgage loans in foreign currency was 0,3% at the end of 2020 and declined by 17pp since 2015.

Chart 5.18 ***The number of problem loans in mortgage portfolio decreased due to issuance of new standard loans, despite of their volume decline***

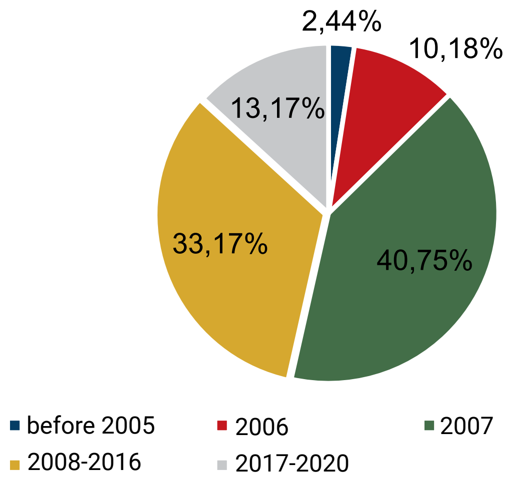


Source: *STB reports, Credit registry, National Bank assessment*

In the structure of the NPL90+ loan portfolio, the largest share of 51% falls on loans issued during the mortgage boom of 2006-2007, and loans issued during the period from 2017 to 2020- 13% *(Chart 5.19)*. At the same time, NPL90+ loans in 2017-2020. did not exceed 0.5% of the RML portfolio at the end of 2020. *(Chart 5.20)*. A significant improvement in the portfolio was facilitated by the introduction of a ban on the issuance of foreign-currency mortgage loans, better availability and terms loans, as well as macroprudential measures to contain the debt burden of borrowers.

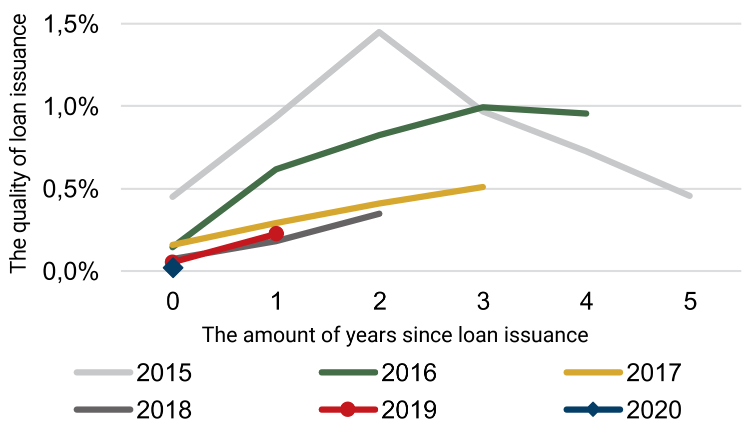
[13] Loans issued to individuals to purchase a residential real estate, meanwhile the purchased real estate or other real estate is considered as collateral

Chart 5.19 ***The structure of NPL90+ in 2020***



Source: *Credit registry, National Bank assessment*

Chart 5.20 ***NPL90+ on RML dynamics***



Source: *Credit registry, National Bank assessment*

VI

Liquidity risks, funding, dollarization, foreign currency and interest risks

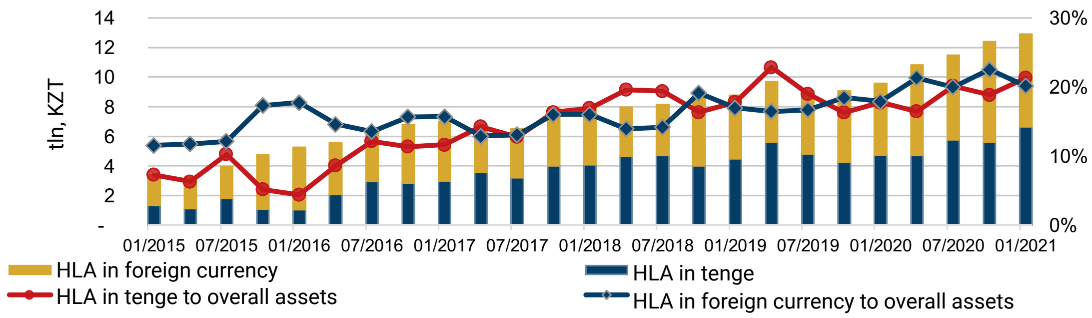
Despite the high concentration of funding, liquidity risks remained low enough compared to other risks. As previously, liquid assets of many banks considerably exceeded standards. Growth of high liquid assets in 2020 was associated with the support measures of banking sector. High liquid assets were placed in National Bank notes and accounts, as well as in the form of reverse repo with National Bank. Interest rate in money market and credit conditions remained stable within the interest rate corridor framework. Residual liquidity risks were absorbed by the monetary policy instruments within the interest rate management and emergency liquidity provision mechanism framework.

As it was previously, the core funding risks were outflow and refinancing risks associated with a high proportion of short-term instruments as well as foreign currency risks associated with the dollarization risk. The share of term funding gradually increased, but it had a low base. The share of deposit dollarization decreased from 42% to 39%, but its growth risk in unfavorable conditions remains high.

6.1 Liquidity risks

The possibility of liquidity risks growth in banking sector remains high in 2020, due to the restriction measures introduced under the spread of COVID-19. Despite this situation, an upward trend of highly liquid assets volume growth maintained in a banking sector. Highly liquid assets (HLA)[14] accounted for 12,9 trillion tenge or 41,5% of assets in banking sector at the end of 2020, having increased by 35,1% over the year *(Chart 6.1)*. The main share of increase was constituted by the growth of tenge component (19,7% out of 35,1%).

Chart 6.1 ***Upward trend of highly liquid assets volume growth maintained in a banking sector***

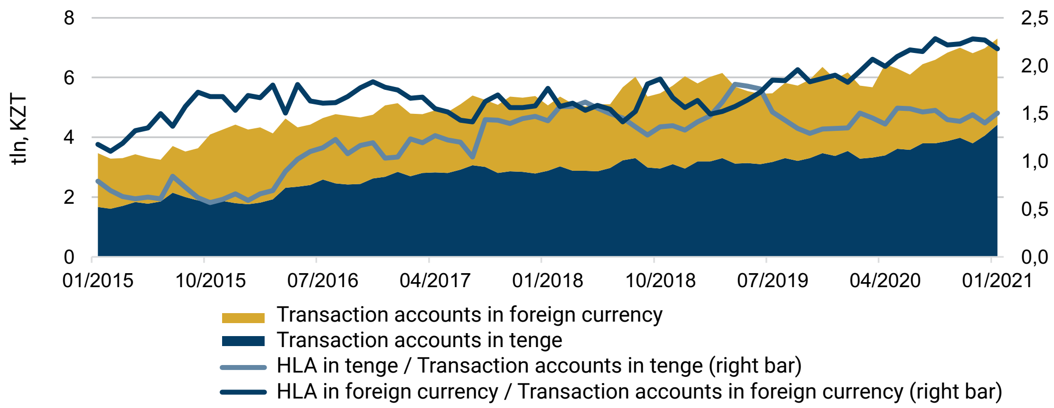


Source: *Bank statements*

Note: *HLA include cash, precious metals, correspondent accounts, interbank deposits and government securities (GS) (excluding encumbered). Data at the end of the quarter*

As of January 1st, 2021, the excess HLA volume increase over liabilities on transaction accounts of individuals and legal entities maintained in the banking sector in tenge by 1.5 times and in foreign currency by 2,2 times. *(Chart 6.2)*. At the same time, if the excess in tenge remained almost without changes, there is a positive trend in relation to the volume of VLA to transaction accounts in foreign currency (from 1,8 up to 2,2).

Chart 6.2 ***Current excess of HLA fully covers potential outflows in transaction accounts***



Source: *Bank statements*

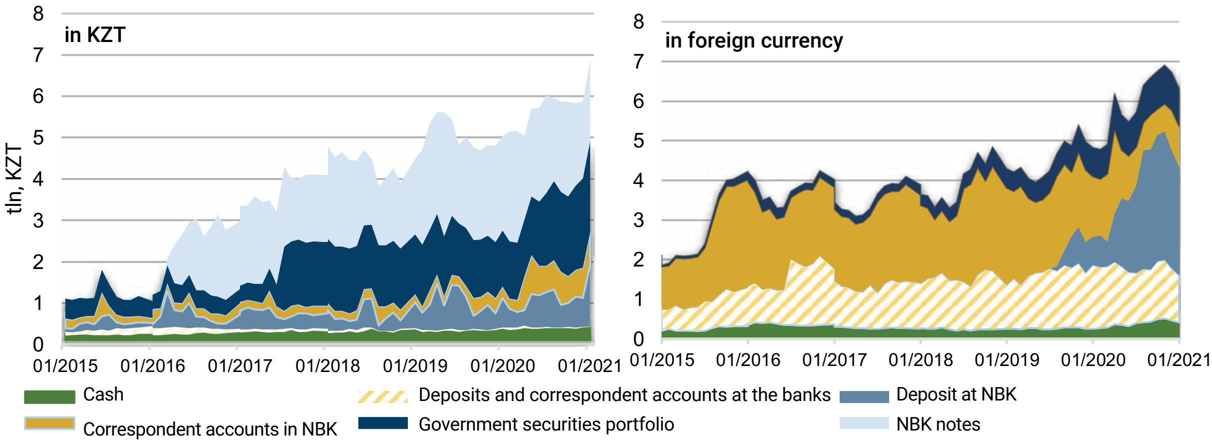
Note: *Transaction accounts include current accounts and demand deposits of financial institutions and legal entities, including interbank correspondent accounts*

[14] Excluding encumbered HLA

Absolute volume of HLA in national and foreign currency remained comparable – 6,8 and 6,3 trillion tenge, respectively. Banks place tenge liquidity mainly in government securities (32%) and National Bank (notes – 28%, deposits – 21%, corresponding accounts – 12%), foreign currency – in National Bank (deposits –43%, corresponding accounts – 16%), also deposits and correspondent accounts of other banks (25%) and government securities (15%) (*Chart 6.3*).

It should be noted since august 2019, that there has been a noticeable increase in the foreign currency deposits share in the NBK in from 119 billion tenge to 2748 billion tenge at the end of 2019. This tendency can be explained by the high popularity of this instrument among banks that was created in the middle of 2019 as a stimulation measure to maintain foreign currency assets inside of Kazakhstani financial system.

Chart 6.3 ***The requirements to NBK prevails in HLA's tenge and foreign currency portion***



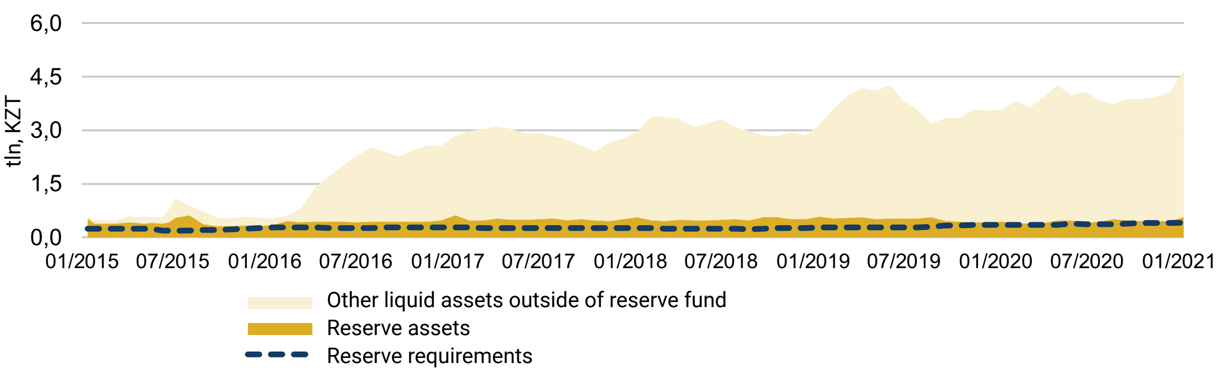
Source: *Bank statements*

Note: *HLA includes cash, precious metals, correspondent accounts, interbank deposits and government securities, except for encumbered ones. Data at the end of the month*

The growth of HLA volume in 2020 mainly took place due to financial inflow, allocated under the government support of economy, as well as measures to create a liquidity reserve for issuing new loans to the economy, including by expanding the list of highly liquid assets and adopting complex prudential measures preventing the negative impact of the COVID-19 pandemic.

At the end of 2020, disparity between reserve assets as cash on hand and national currency in correspondent accounts at the National Bank as well as the reserve requirements shortened (from 2 to 1,1 times) *(Chart 6.4)*. It was associated with the changes in the procedure for calculating minimum reserve requirements in terms of liabilities structure and reserve assets of banks, also the values of the standards adopted by NBK in the middle of 2019 as the part of the improvement monetary policy instruments.

Chart 6.4 ***Since 2016, banks meet minimum reserve requirements with a significant margin***

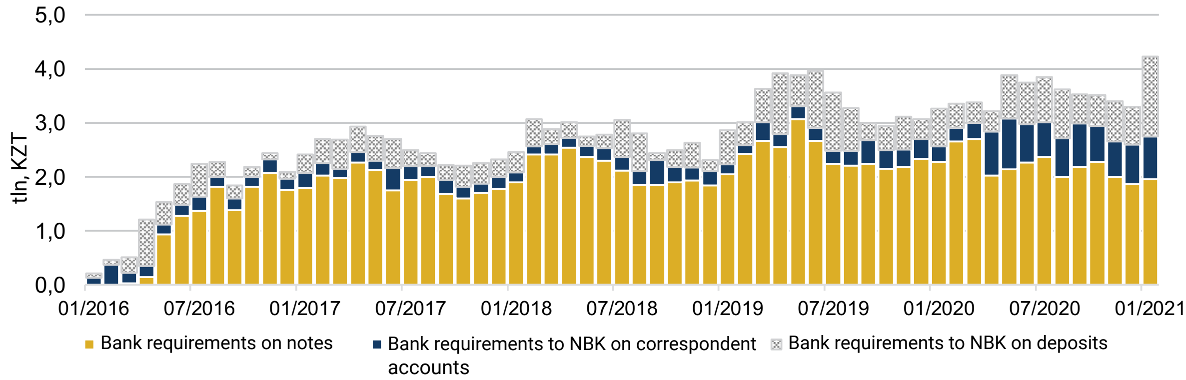


Source: *Bank statements*

Note: *reserve assets – average stock in national currency on banks' correspondent accounts at NBK and cash (cash on hand, cash in transit, ATMs, payment terminals) approximately 50% out of MRR within the defining period. Reserve requirements are the minimum amount of funds required to be maintained by banks on a correspondent account in national currency at NBK. Data on MRR, reserve assets and requirements for the NBK are indicated on average for the period*

Bank requirements to National Bank accounted for 4,2 trillion tenge at the end of 2020 *(Chart 6.5)*. During the distribution of excess liquidity, a considerable share is still belongs to the NBK notes, while the share of deposits in the NBK has increased.

Chart 6.5 ***Notes absorb the main part of excess liquidity***



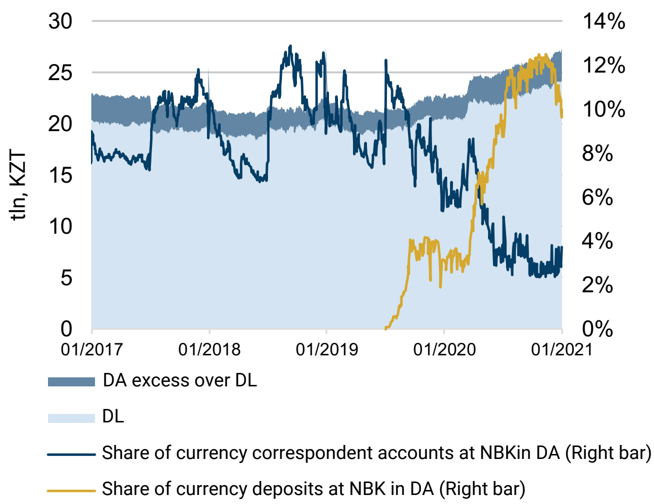
Source: *Bank statements, National Bank*

It should be noted that the share of foreign currency correspondence accounts decrease in domestic assets of banks. This tendency is associated with a decrease of foreign currency correspondence accounts in the NBK, in particular, due to increasing interest of banks to newly introduced foreign currency deposits in NBK. Foreign currency correspondence accounts in NBK declined to 1,2 trillion tenge and accounted for 4% from banks' domestic assets at the end of 2020. At the same time, foreign currency deposits in the NBK introduced in the middle of 2019 reached 2,7 trillion tenge or 10% from domestic assets *(Chart 6.6A)*.

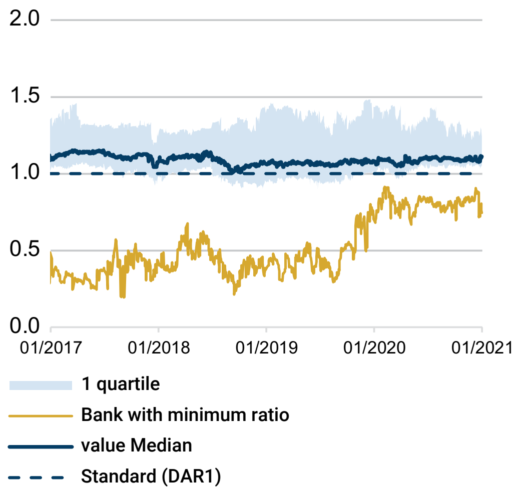
There is a positive trend in the structure of domestic assets and domestic obligations– 20,3% and 17,7%, respectively in 2020. At the same time, bank funds in foreign accounts decreased to 26,2% up to 1,1 trillion tenge. This positively affects to the implementation of prudential standards on placing part of bank funds in domestic assets, that is designed to ensure a sufficient share of own and borrowed placements to domestic assets of banks. Currently, most banks maintain domestic asset ratio (DAR) *(Chart 6.6B)* and the "bank" with minimal liability stands closer to standard value of the coefficient.

Chart 6.6

A. ***Foreign currency correspondence accounts at NBK are relatively small part of domestic assets***



B. ***At the same time, funds in foreign currency correspondence accounts have almost no effect over banks' maintenance of DAR***

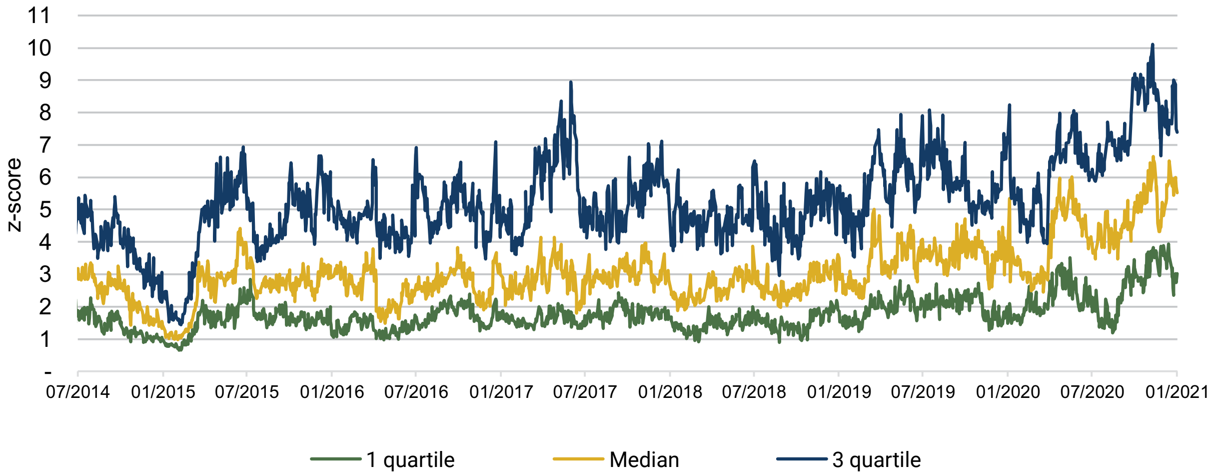


Source: *Banking report*

Note: *DA - domestic assets, DL - domestic liabilities, which are calculated as the sum of average monthly values of the sub-debt, issued bonds, with the exception of Eurobonds, domestic liabilities to residents of Kazakhstan and part of equity. DAR is the ratio of investments in domestic assets (> = 1). Interquartile range includes banks in 2nd and 3rd quartiles*

An analysis of liquid assets shows that in many banks the amount of basic liquid assets was maintained at the level sufficient to cover for one-day standard deviation of the deposit base *(Chart 6.7)*. Banks have sufficient liquidity to meet the needs for tenge liquidity loan.

Chart 6.7 ***Most of second-tier banks (STB) have sufficient tenge funds to cover one standard deposit deviation***

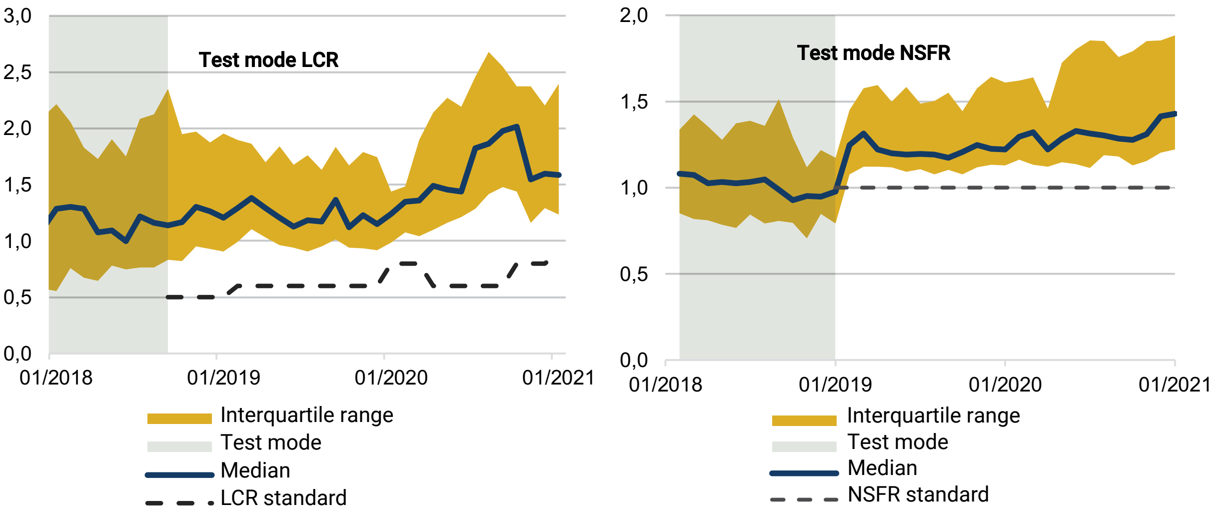


Source: *Bank statements*

Note: *The adequacy ratio of basic liquid assets is calculated as the ratio of basic liquid assets of the banks (cash on hand, precious metals, funds in correspondent accounts and deposits with the NBK / STB) and standard deviation of deposits in national currency for 3 months on a per day basis (Z -score). Daily reports*

The gradual improvement in the value of the LCR liquidity ratio to the regulatory value recommended by the Basel Committee on Banking Supervision at the level of 1.0 that is coming into force in 2022 was interrupted by anti-crisis support measures due to pandemic. To minimize the impact of pandemic quarantine to the stability of banking sector regulatory requirements to bank liquidity were simplified, from March to September 2020 by the regulator as temporary measure. Particularly, Prudential standard LCR was declined from 0.8 to 0.6. NSFR was not revised during the reporting period and remained at the level of 1.0.

Chart 6.8 ***Most banks comply with current LCR and NSFR requirements***



Source: *Bank statements, National Bank estimates*

There is no liquidity problem in the systemic level. Many banks implemented LCR and NSFR standards at the beginning of 2021, except 3 (one of them had its license revoked at the end of 2020), which despite accepted regulatory relief measures, showed low level of prudential liquidity standard *(Chart 6.8)*.

6.2 Funding risks

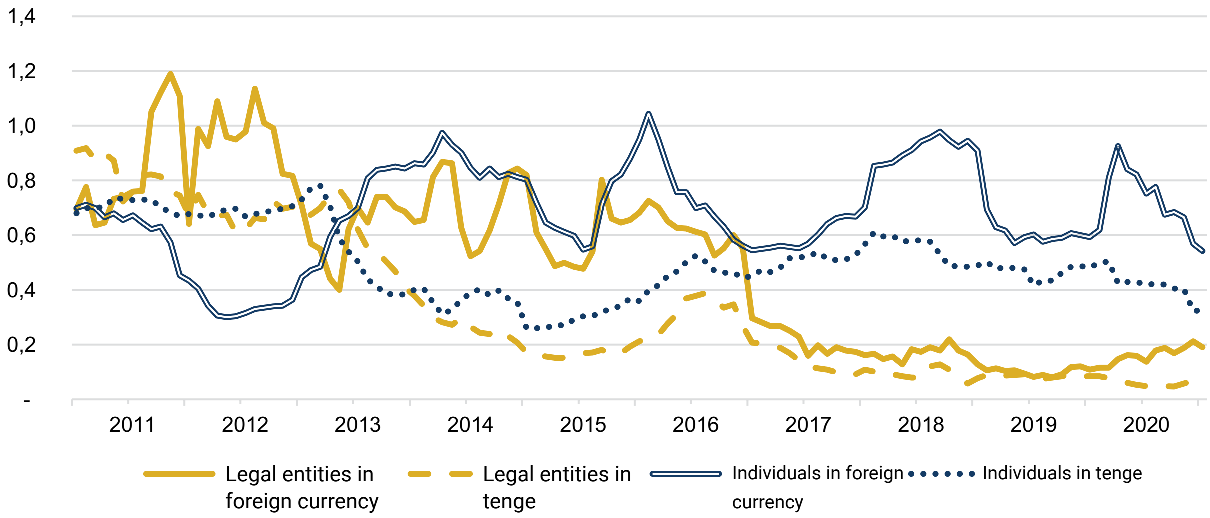
The main risks in the funding structure are associated with effective management of liabilities. The share of fixed term retail deposits increased to 9.8 pp., however, the share of fixed term retail deposits remain low, as well as creditors concentrations maintains, the majority of them are governmental companies.

Low Funding Sustainability

The fixed term transformation is banks' main function. It is important for banking sector to minimize the share of uncertainty in dealing with assets and liabilities to provide economy with effective credits. In this case, the key point is to create a sustainable funding base.

Currently, the real fixed term of deposits continues to remain in low level *(Chart 6.9)*. There was an increase in the average maturity of foreign currency deposits of both legal entities and individuals associated with a sharp rise in exchange rate. Concerning to individuals this sharp rise in exchange rate was short-term reaction to market shock but for foreign currency deposits of corporate sector this upward trend lasted until the end of the year. In general, there is no positive trend for both legal entities and individuals from the increasing the average maturity of deposits issued in tenge.

Chart 6.9 ***Average actual maturity of deposits with a fixed term of 1-5 years is less than a year***



Source: *Bank statements*

Note: *The average turnover is determined by the modified formula for the receivables turnover period taking into account the turnover on attracting and withdrawing deposits. Data for the reporting month*

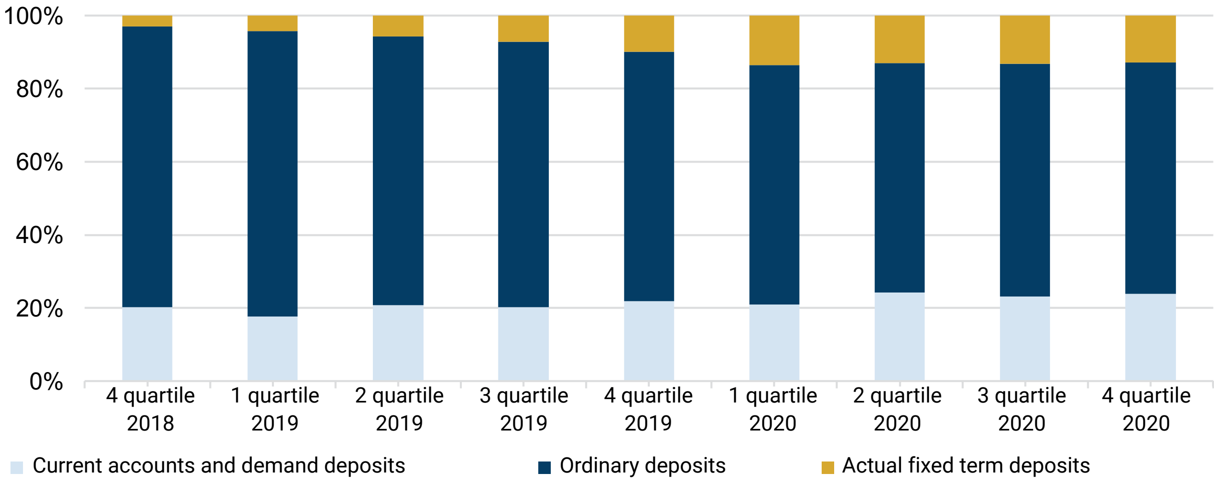
Under the regulatory restrictions on limits of reaching high level of deposit rates, the main competitive advantage of deposit products are non-price loyal conditions to depositors according to deposit contracts. Moreover, the absence of actual fixed term deposit market caused difficulties in asset and liability management for the second-tier banks and increased the risk of disparity appearance.

National Bank together with JSC Kazakhstan Deposit Insurance Fund took certain measures to develop fixed-term deposits through market mechanisms without direct statutory ban and prolonging the bank-funding base, also to reduce interest risk. Particularly, new mechanism on changed deposit rates in tenge is introduced since 4th quartile 2018, and for deposits in foreign currency it is introduced since July 2019. This measure allowed to show actual bank risks, associated with early withdrawal of deposits. It meets Basel Committee on banking Supervision recommendations and generally accepted world practice in the sphere of risk management.

The share actual fixed-term deposits in retail funding considerably increased within 2 years since introduction of above mentioned measures – from 3% in 4th quartile of 2018 to 12,8% at the end of 2020 *(Chart 6.10)*. Statistics on actual fixed-term deposits in corporate sector are not available but high demand on turnover assets in business allows us to suppose that the volume of actual fixed-term deposits of legal entities is not remarkable.

At the same time, certain measures on including deposits of legal entities with the possibility of unconditional early withdrawal in the amount of available funding when calculating the NFCR were developed and implemented to support banking sector during the pandemic conditions. It may provide additional time for banks to stabilize funding base and attract long-term funds.

Chart 6.10 ***Role of actual fixed-term deposits in retail funding increased, but remains low***



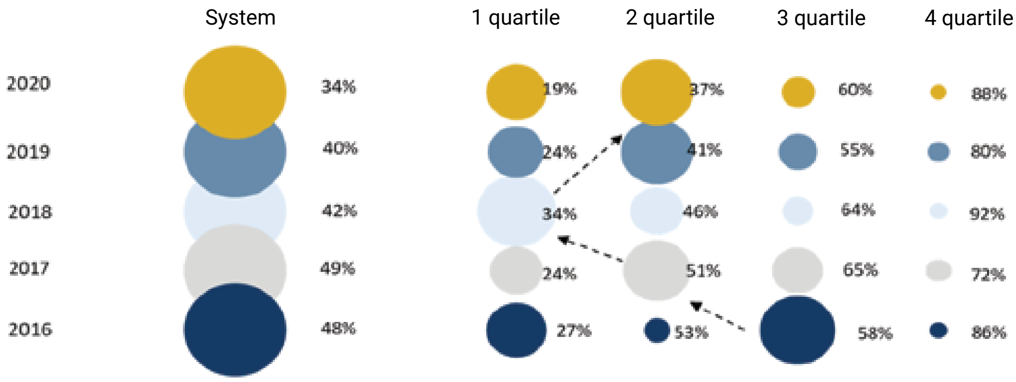
Source: *Kazakhstan Deposit Insurance Fund*

Fund concentration

The share of top 25 creditors account for 34% out of bank liabilities (48% at the end of 2016), 2/3 of them are governmental companies. Liabilities were reduced in all groups of large creditors, including large retail depositors and non-governmental legal entities.

Small banks are in the group of risk concentration among other groups of banks. The share of large creditors with liabilities in small banks cover 88% in an average *(Chart 6.11)*. The share of large banks' credit liabilities to the top 25 creditors gradually decreased from 58% at the end of 2016 to 37% at the end of 2020.

Chart 6.11 ***Major lenders and depositors are concentrated in large banks, but the concentration problem is most acute in several small banks***
Share of top 25 lenders



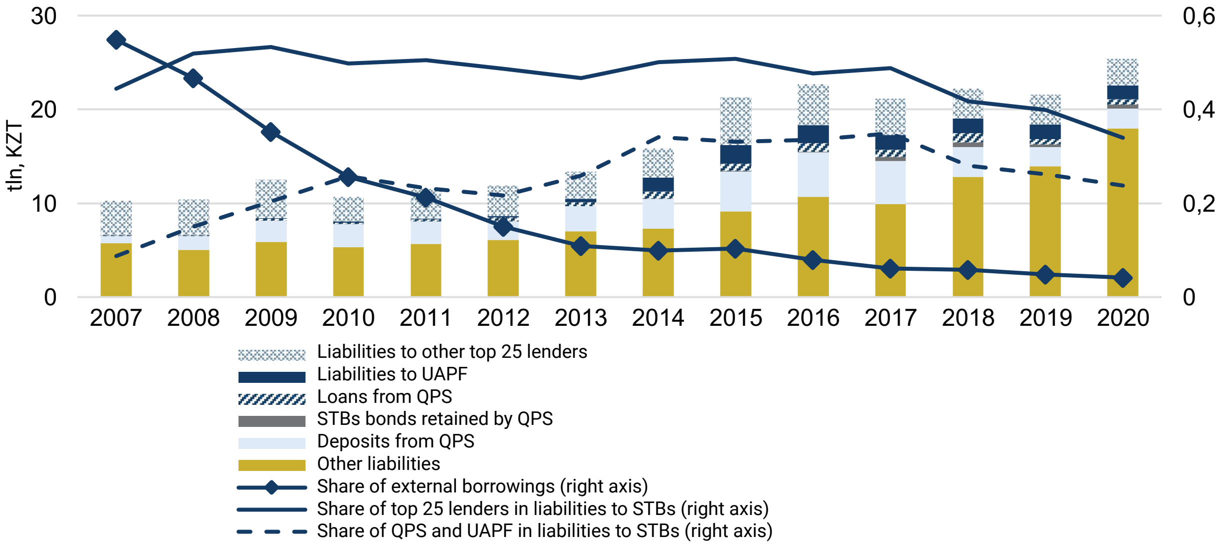
Source: *Bank statements*

Note: *The ranking and distribution of quartiles is done according to the share of top 25 creditors for a given bank in the bank's liabilities: 1 quartile - banks with the smallest share of top creditors, 4 quartiles - banks with the largest share. The bubble area is proportional to the share of quartile banks' liabilities in sector liabilities. Inside the bubble, the quartile average share of top creditors is indicated*

Dependence on State-Owned Companies

High concentration on funding is associated with the large share of state-owned sector existing in banking liabilities. This trend developed in post-crisis period (since 2007) due to increased government support of banking sector because of declined access to foreign funding. The trend reached its peak in 2017 (35% at the beginning of 2018), and share of funding from government companies declined and accounted for 24% liabilities in banking sector at the end of 2020 *(Chart 6.12)*.

Chart 6.12 ***Since 2018, the share of the largest funding, including from the public sector, has been gradually decreasing***



Source: *Bank statements, UAPF*

Note: *QPS - quasi-public sector. Liabilities to UAPF include liabilities on deposits and securities. Other liabilities include liabilities to other non-QPS or major lenders*

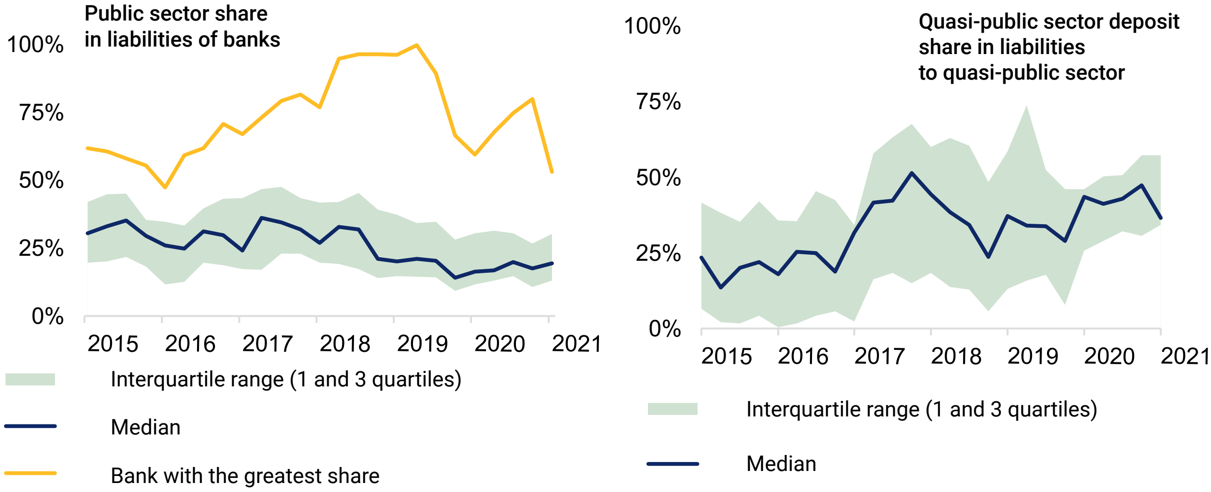
Over 30% of funding from the public sector was attracted as deposits. Despite the decreased share of deposits raised from the public sector funding, the trend of commercial banks dependence from government still persists. It is explained by difficult economic situation in the country and world that requires a necessity of government support in current situation.

In some banks, mostly small ones, the share of the public sector funding in some periods was 100% *(Chart 6.13A)*. At the same time, some banks raised all funding as public sector deposits *(Chart 6.13B)*.

The dependence of funding from public sector has a significant impact on the conditions of market competition in banking sector. The risks of negative selection of investment projects for crediting and possibility of low-level market discipline are increasing. In addition, opportunities to orderly settle an insolvent bank without losses in the public sector will be limited. These risks are less obvious, than risks in market funding but their consequences may cause more significant threats to financial sector's stable development.

Chart 6.13

A. ***The public sector funds more than a half of some banks' liabilities*** *B.* ***Funds are raised mainly by non-term deposits***



Source: *Bank statements, UAPF*

Note: *QPS – quasi-public sector*

In order to further reduce risks and upgrade the government support mechanisms with minimal distortion of market competition conditions requires:

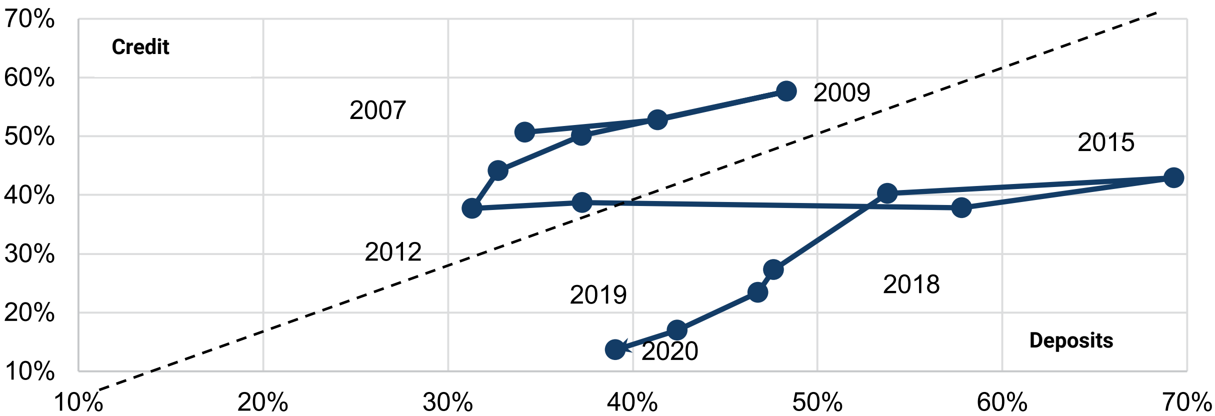
- *to take measures to correct Quasi-public sector investment politics in banking sector with enlarging portfolio of investment instruments and financing schemes;*
- *the National Bank's exit from economic support programs that causes a conflict of interests in implementing their direct function.*

6.3 Dollarization risks

Level of liabilities' dollarization remains significant, it gives an impetus to currency risks and directly affects to price formation of banking products.

The level of deposit dollarization in STB decreased from 42% to 39% in 2020 compared to the level of 2019. Process of de-dollarization of deposit portfolio continued to slow down under the insecure situation in commodity markets and sharp jumps in exchange rates in the beginning of the year *(Chart 6.14)*.

Chart 6.14 ***De-dollarization of credits and deposits slows down***

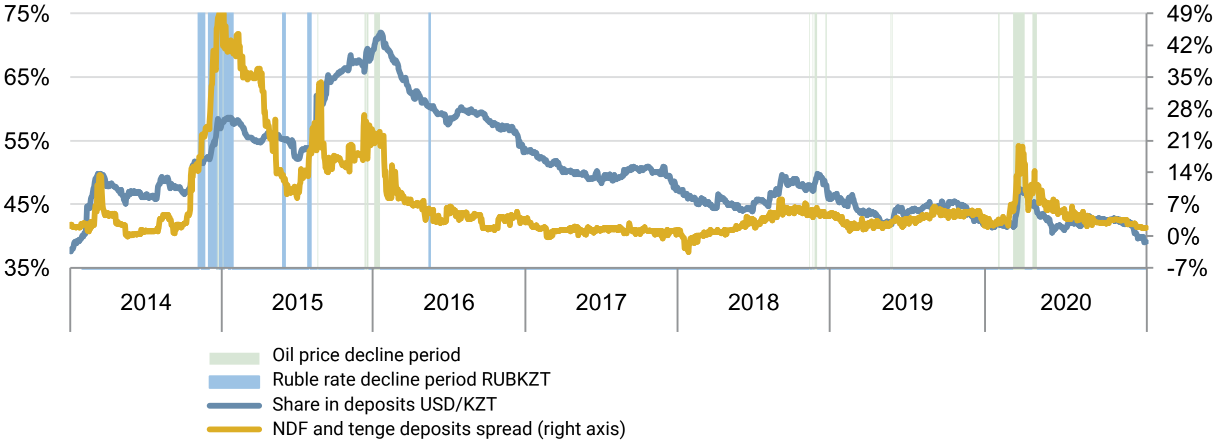


Source: *Bank statements*

Note: *Data at the end of the period*

Oil price is a key factor that determines the level of dollarization. However, after the transition to flexible exchange rate, the effect of revaluation on dollarization levels has decreased significantly *(Chart 6.15).* Thus, in the first half of this year, banking system has levelled and absorbed the effect of considerable oil price fall that happened in the beginning of 2020. In the second half of this year, there is no increase in the devaluation expectations of depositors, expressed in an abnormal increase in the share of foreign currency deposits, despite the persistence of negative market forecasts and a decline in business activity.

Chart 6.15 ***Exchange rate expectations drive liability dollarization which intensifies during a period of external volatility***



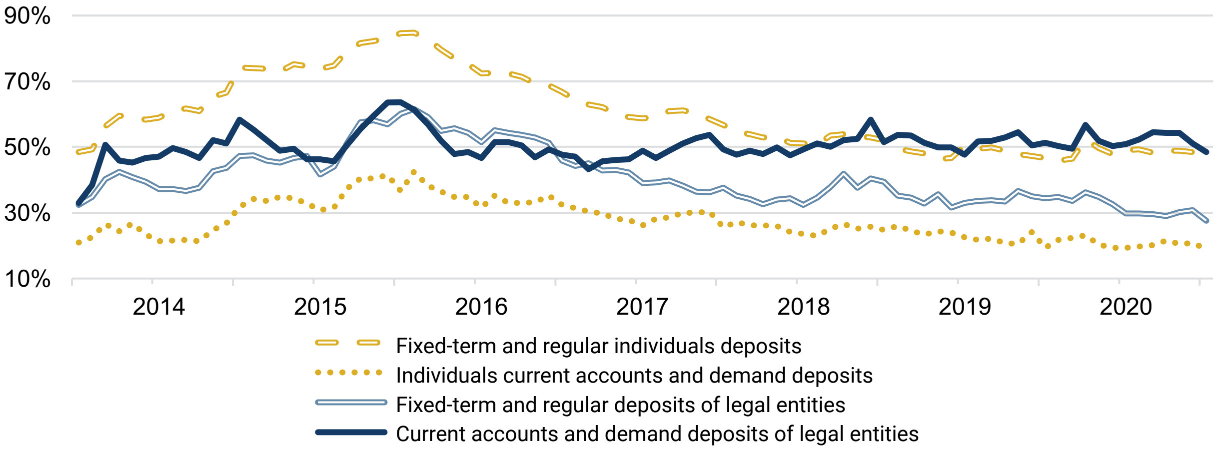
Source: *Bank statements*

Note: *Ruble KZT rate decline period – significant devaluation of Russian ruble with respect to Kazakhstan tenge*

There are following peculiarities of dollarization in Kazakhstan depending on depositor, type and size of deposit:

- *In the segment of retail deposits dollarization is focused on fixed-term deposits (48%), in corporate segment – on transaction accounts (48%) (Chart 6.16). It means that population prefer to save up their money in foreign currency for a long time period, but business representatives prefer to deal with foreign currency in short-term period.*

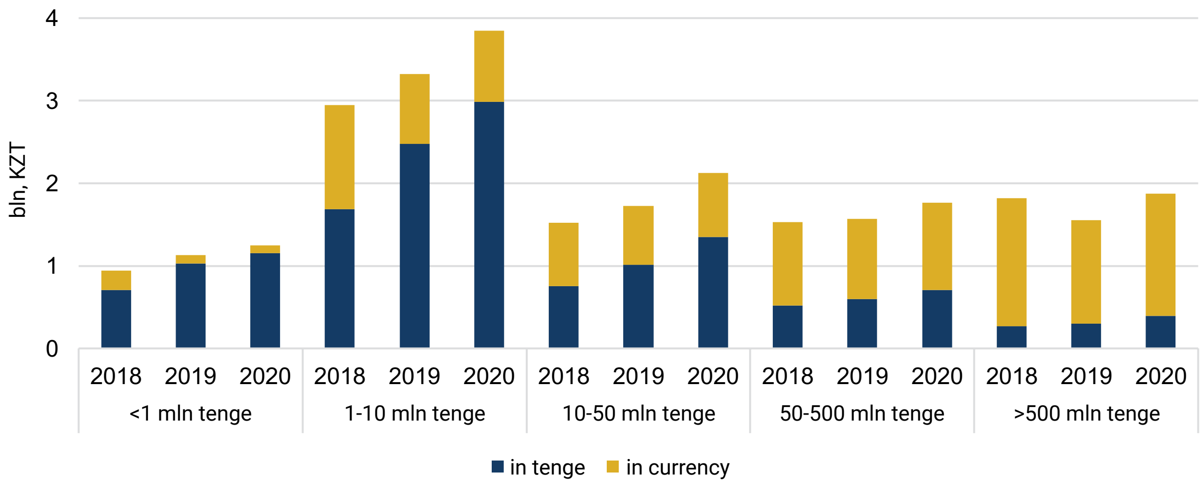
Chart 6.16 ***Dollarization of household fixed term deposits is higher, than in current accounts, when in the corporate sector it is vice versa***



Source: *Bank statements*

Dollarization of household deposits depend on the size of a deposit – the larger household deposit, the higher dollarization level (Chart 6.17). Dollarization of retail deposits with the size of less than 1 mln tenge was 8%, deposits over 500 mln tenge – 79%. Thus, de-dollarization opportunities for the household deposits are focused on mostly in medium-sized deposits, for small-sizes deposits – excluded, large depositors constantly prefer foreign currency deposits.

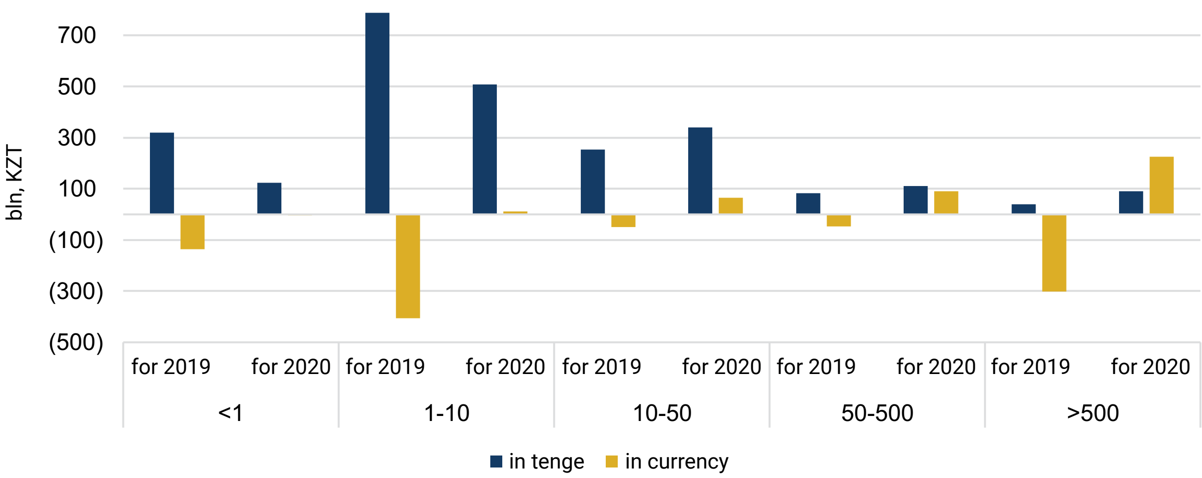
Chart 6.17 ***Larger household deposit, the higher dollarization level; de-dollarization potential remains for medium-sized deposits***



Source: KDIF

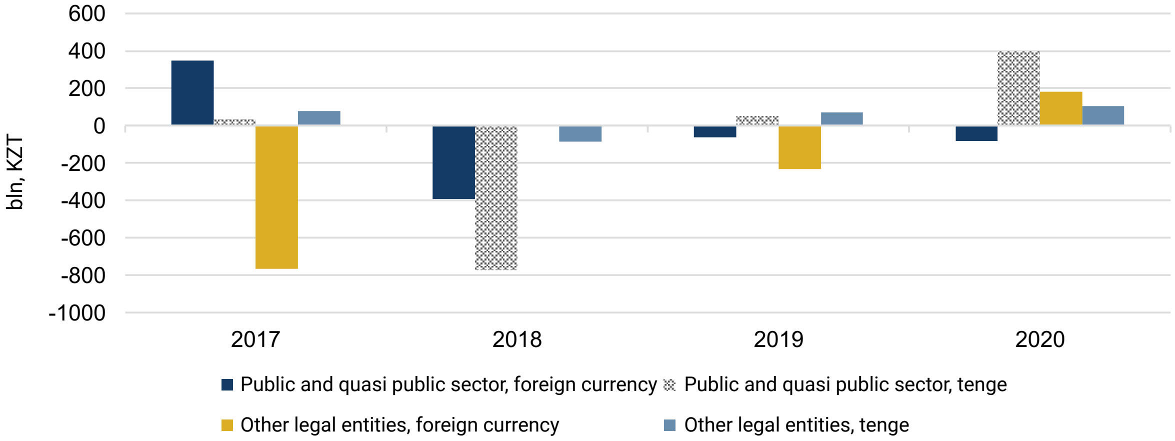
The number of small-sized deposits (507 bln tenge) in tenge increased among household deposits and outflow of large foreign currency deposits took place in 2020 (Chart 6.18). According to National Bank estimates, significant decline in foreign currency deposits in corporate segment were noticed in quasi-public sector (Chart 6.19).

Chart 6.18 ***Main inflow of retail deposits was driven by small-sized tenge deposits***



Source: KDIF

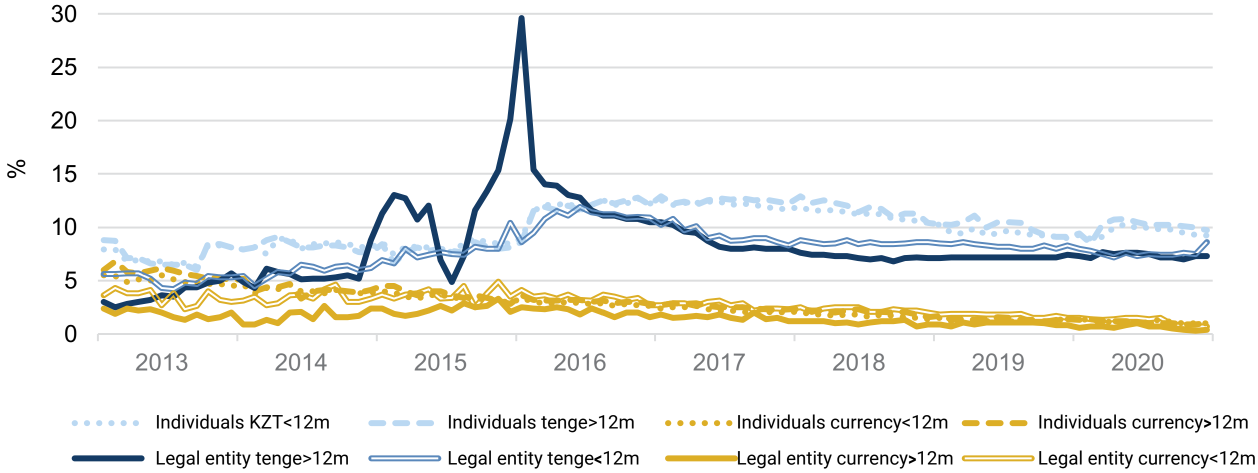
Chart 6.19 ***In corporate sector, quasi-public organizations experienced the biggest decline of foreign currency and tenge deposits***



Note: *NBK Assessment based on top 25 creditors*

Banks continue to attract foreign currency funding, but banking system' capacity to form price policy on deposits taking into account funding risks, including foreign currency deposits remain limited *(Chart 6.20).*

Chart 6.20 ***Attraction cost of tenge and foreign currency deposits gradually decreases***

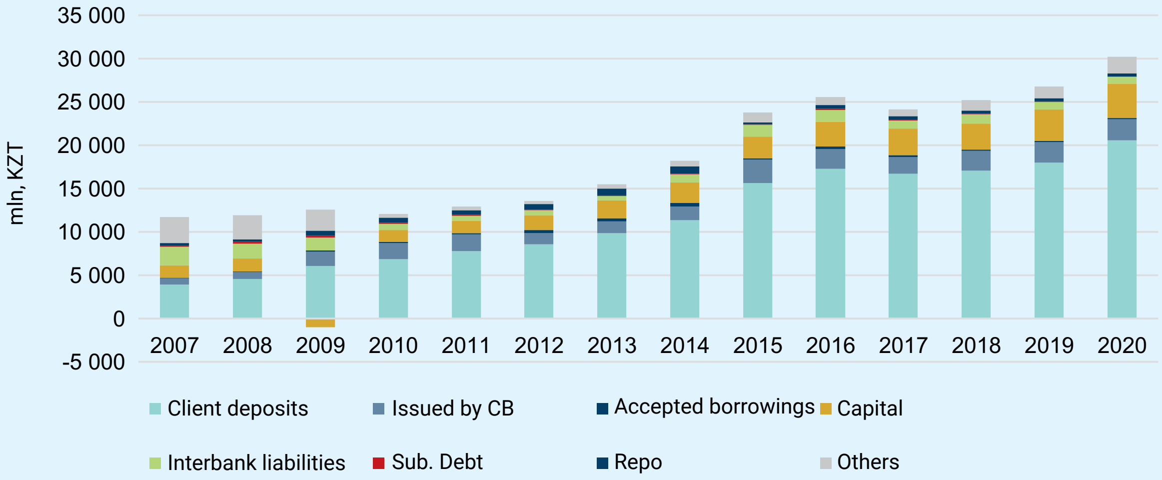


Source: *Bank statements*

Box 4 Structural changes in funding model

Last 14 years the structure of Kazakhstan's funding considerably improved. (Chart 6.21). Banks continue to enrich the share of their capital and client deposits for last few years. If banking system's total capital was negative in 2009, so now it reaches 12% it is the highest rate for the last 10 years. Taking into account that foreign borrowings are limited, we consider, that model of deposit funding is preferable for the majority of banks.

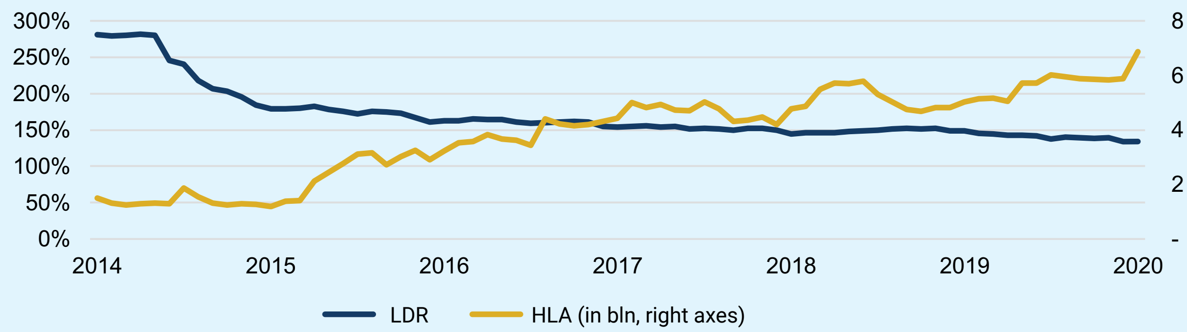
Chart 6.21. ***Structure of liabilities and banking capital considerably declined***



Source: *Bank statements*

Banking assets undergone significant changes. As a result of government support provided to banks, that suffered from credit losses and credit risk limited in their ability to absorb, the process of replacing the corporate portfolio to risk-free assets continued.

Chart 6.22 ***LDR decreased because if growing the volume of HLA***

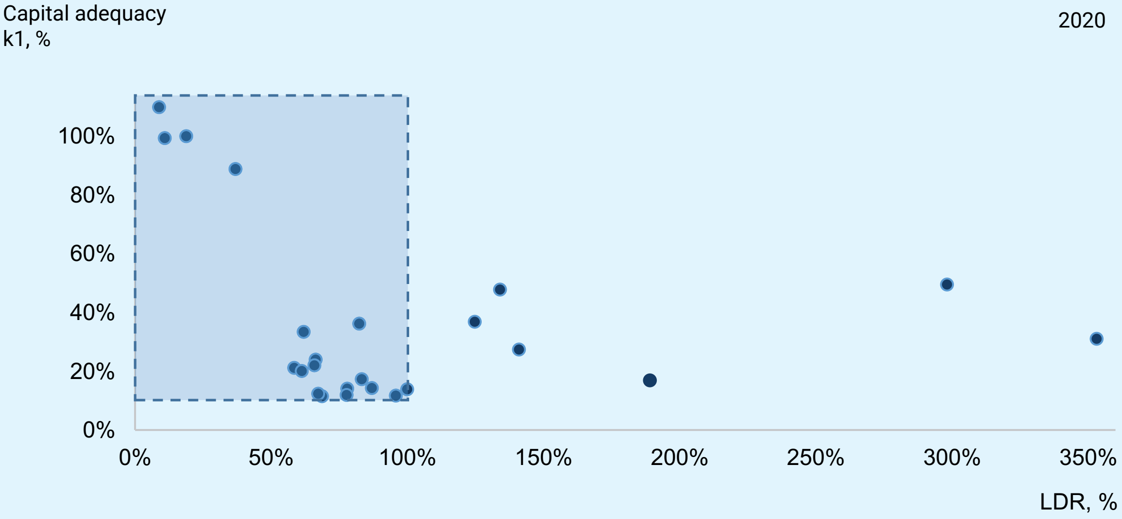


Source: *Bank statements*

The volume of High Liquid Assets grew together with decrease of loan-to-deposit ratio (LDR) under banking system *(Chart 6.22)*. The average level of LDR stood at 278% at the beginning of 2000. In the period of crediting active growth, its' highest level reached 516%. After financial crisis in 2007 coefficient rapidly reduced, today it accounts for 161%. Banks actively changed the structure of credit portfolio due to continuous reduction of LDR to assets with high level of income: the volume of long-term mortgage loans under market conditions decreased, and banks turned to consumer credits with high income.

The majority of Kazakhstani banks demonstrate a relatively balanced structure of assets, liabilities and capital *(Chart 6.23)*. The volume of deposits is higher than the volume of issued credits in 65% of Kazakhstani banks; the k-1 capital adequacy ratio is more than 10.5%. 5 years ago, only 16% of banks were included in this category.

Chart 6.23 ***Banks positions according to LDR and capital adequacy***

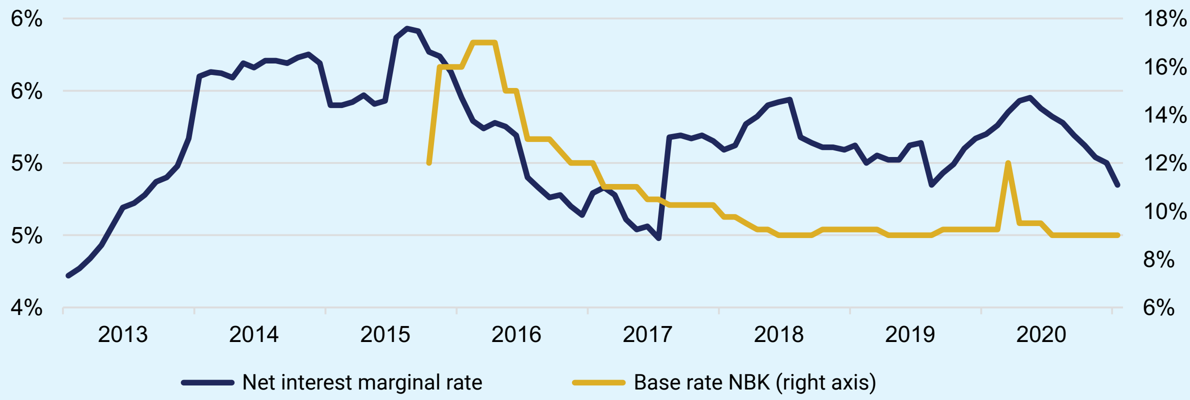


Source: *STB reporting*

In the future, LDR requirements will continue motivate banks to keep enough level of liquid assets, but NSFR requirements – will motivate banks to expand fixed-term funding base.

Structural changes in bank balance sheet affect the net interest margin of banks narrowing the volatility corridor. Banks' marginal income growth potential expires. Before the introduction of the base rate, the average net interest margin was 5.3% with a standard deviation of 0.5 pp. After introduction of the base rate the level of margin is 5,1% with a standard deviation of 0,3% pp. narrowing corridor of banking marginal will correlate with base rate *(Chart 6.24)*. There is a prediction, that base rates will be maintained at the same level as they are now without significant improvements in macroeconomic situation.

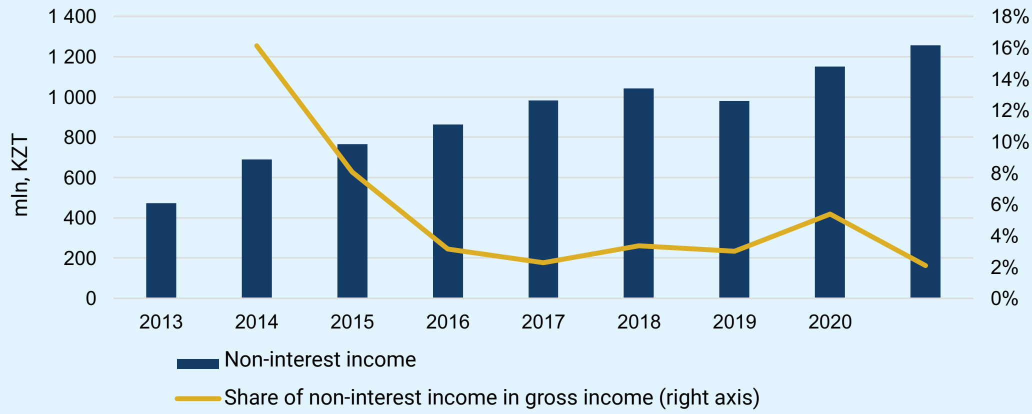
Chart 6.24 ***Net interest marginal rate***



Source: *STB reporting*

If we look at the structural changes in the bank income, we may notice that there is a shift towards non-interest income. Between 2013 and 2021 share of net interest marginal rate in gross income decreased to 14 pp from 16% to 2% *(Chart 6.25)*.

Chart 6.25 ***Non-interest income replaces Interest income***



Source: *STB reporting*

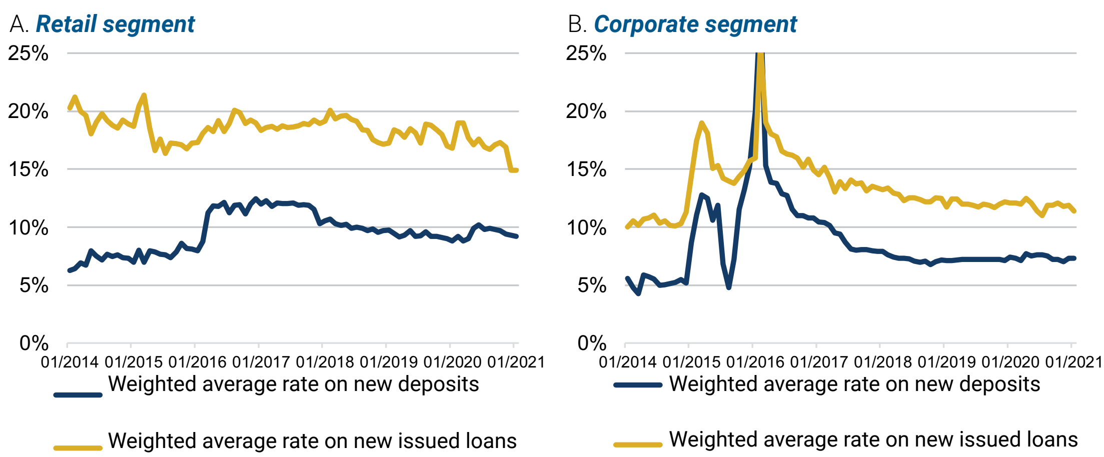
Many banks already restructure their credit direction and business to get commission income. Although only several banks revised the structure of liabilities in the framework of complex approach to balance sheet optimization. Banks should use more strategic approach to manage the balance sheet, funding optimization and liquidity for further income stable growth in existing economic conditions.

6.4 Interest rate risk

In retail segment newly attracted deposits in 2020 average weighted rates on attracting deposits on legal entities and individuals remained in stable zone. In the first half of 2020, deposit rate in retail segment grew from 9,2% to 10,2% in May it reached its' peak, after that it decreased, at the end of the year it was 9,2%. Average weighted rate deposits in corporate sector almost didn't change, at the beginning and at the end of the year it stood at 7,3%, fluctuating to 70 base point within 12 months, in march it was 7,7% reaching its' maximum, and in October it was 7,0% reaching its' minimum.

In retail credit segment in 2020, there was unequal decline of average weighted rate from 19,0% in the beginning of the year to 14,9% at the end of the yea, reaching its' minimum in last 5 years *(Chart 6.26A)*. Crediting in corporate sector did not have any significant sharp fluctuations in 2020. The average weighted rate maintained at the level of 11,9%, reaching its' maximum in march 12,5%, and minimum in June 11,0% *(Chart 6.26B)*.

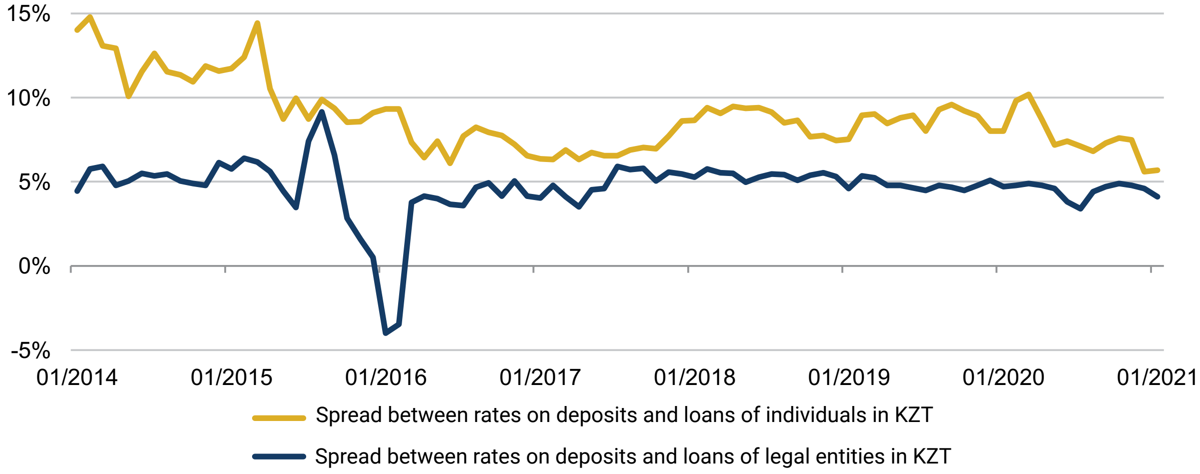
Chart 6.26 ***Average weighted rates are declining both on new deposits and new tenge loans***



Source: *STB reporting*

Note: *Mobilization rates are the average weighted rates on deposits mobilized over the reporting period (new deposits and replenishment of previously opened deposits). Placement rates are the weighted average rates for new bank loan agreements signed during the reporting period. Retail segment are deposits and loans of individuals, corporate segment includes deposits and loans of the legal entity. The reporting period is a month*

Chart 6.27. ***Spread between interest rates on loans and deposits is reducing both in corporate and retail segments***



Source: *STB reporting*

Spread between interest rates on loans and deposits in retail segment grew from 9,8 pp to 10,2 pp in February *(Chart 6.27)*. As a result of National Bank changes base rates from 9,25% to 12% taking into account level currency risks and inflation growth in march 2020, also postponed rate growth effect newly attracted deposits, spread on individuals declined every month until July, reached 6,8 pp. At the second half of the year spread slightly enlarged maximum to 7,6 pp and then declined again.

Spread in corporate sector at the beginning and at the end of the year was 4, 8 and 4, 1 respectively. Spread started decline in May, and in June it was 3, 4 pp, it happened due to decline in deposit and credit rates. At the second half of 2020, there was not significant change in spread.

VII

Changes in regulatory environment due to the impact of pandemic COVID-19

Spread of pandemic COVID-19 and its' impact to economic processes caused unprecedented global changes. High level of uncertainty in financial and commodity markets led to increase of system risks in the economy of Kazakhstan. Reducing the growth rates world GDP, slowdown in the economy of EU, China and Russia, negative scenarios of international experts on crisis development caused serious obstacles compared to crisis in 2008-2009.

Kazakhstan together with other countries had to introduce strict restriction measures recommended by WHO to reduce negative consequences of the spread of COVID-19, restriction measures affected to the development rates of domestic economy. The oil price declined because of reduced domestic demand due to quarantine measures introduced in major cities of Kazakhstan affected to significant slowdown in growth of economy in 2020. Subsequently it caused a need to adopt and implement anti-crisis measures to support population, actual and financial sectors of economy.

Government and National Bank took measures to prevent countercyclical smoothing of business cycle and to avoid decline of economy to deep recession. Monetary policy regime implemented by National Bank contributed to smoothing effects of trade shock by floating exchange rate and policy of tenge assets attractiveness.

In conditions of business activity slowdown the Agency took prudential counter cyclic type of measures in 2020 to reduce pressure on capital and bank liquidity, to support banking sector capacity to issue credits to public sector of economy.

7.1 Capital base support measures through prudential standards of capital adequacy

Risk weighting coefficients were reduced while calculating adequacy of equity on loans issued to representatives of SME (from 75% to 50%), and syndicated loans (from 100% to 50%) to stimulate crediting of economy and under conditions of exchange rate volatility, as well as negative tendencies in world commodity and goods markets.

For certain types of assets (deposits, loans, correspondent accounts), the rating requirement were revised downward while maintaining the current values of credit risk in order to provide banks with opportunity to take into account assets of a previously defined risk degree when calculating the adequacy of equity capital.

The list of property recognized as collateral has been expanded (insurance contracts, syndicated loan agreements and PPP projects with the right to "take or pay" have been included) in order to expand bank's ability to lend to new borrowers for those, who do not have collateral.

Restructuration associated with payment-delay under emergency situation was excluded from demonetarization criteria while creating provisions to stimulate banks to provide loan restructuration associated with payment-delay under emergency situation and to reduce pressure on bank capital. This measure is aimed at stimulating banks to issue new loans to borrowers who suffered most during emergency situation. The fact of loan restructuration under emergency situation should not be taken into account while issuing a new loan.

Besides the Agency has enlarged a list of restructuration types, that are excluded from the loan demonetarization criteria. Banks are allowed to conduct restructuration of population credits and businesses. As if borrowers receive credit vocations under emergency situation, so for reliable borrowers when they have temporary financial difficulties (in case if borrower does not have overdue debts more than 30 days and without referring to restructuration associated with borrower's financial difficulties for last year before introduction of emergency situation).

Requirements for banking capital for a certain period were softened by reducing the conservation buffer by 1 pp from 2% to 1% to absorb bank's additional losses caused by crisis and to support the volume of crediting. This measure was introduced for 1 year, from 1 June of 2020 up to 1 June of 2021.

Under Agency estimates, overall those measures allowed to realize a part of bank capital in the volume up to 468 bln tenge for economy crediting.

7.2 Liquidity support measures through creating stock of liquidity to issue new loans to the economy

Taking into account capital adequacy and risk per borrower, guarantees from quasi-state companies (Samruk-Kazyna, Baiterek and KazAgro) were recognized for a temporary period as liquid collateral to reduce risk on loans secured by such guarantees. This measure allowed reducing the level of bank credit risk and potentially enlarging crediting at the expense of released capital.

The list of high liquid assets was enlarged to create additional liquidity stock in order to issue new loans to economy at expense of including bank's funds to correspondent accounts in foreign currency and fixed-term deposits in National Bank. This allowed increasing the volume high quality liquid assets for 568 bln tenge.

The Agency took additional complex of prudential measures to stimulate bank's further credit activity and suppor their financial stability. These measures aimed at additional reduce of pressure on liquidity at the expense of softening requirement on liquidity standards and funding attraction.

Requirements were softened according to liquidity coverage rate to reduce pressure on bank liquidity until 1 April of 2021 by reducing the minimum allowable value from 0,8 to 0,6 and revise the volume of monetary outflow at the expense of Government liabilities, National Bank, international financial organizations, local government authorities from 40% to 20%. Also deadline for further tightening of NSFR requirements was postponed. Reduction of prudential standard data under Agency estimates, allowed to release a part of bank liquidity until 1,1 tln tenge.

Table 7.1 ***Anti-crisis measures of prudential regulation***

#	Measures	Result of measures	Deadline
1.	Reduce Requirements to banks own capital: - reduction of the conservation buffer equity capital by 1 pp	Additionally released 468 bln tenge	Until 1 June 2021
	- risk-weighting reduction on SME loans - changing the rules for the recognition of collateralized liquid assets - Samruk-Kazyna, Baiterek, KazAgro guarantees are recognized as liquid collateral		Unitl 1 October 2020
2.	Banks' liquidity requirements reduction (reduction of the liquidity ratio (LCR) and expansion of the list of long-term liquid assets). Deadline for further tightening of NSFR requirements postponed	Additionally released liquidity to 1,8 tln tenge	Until 1 April 2021
3.	Loans that have been restructured are excluded from the demonetarization list		Until 1 October 2020
4.	Prolonging the deadline of anti-crisis measures, except for the reduction of regulatory value of LCR	Preservation of the release of equity capital by 468 billion tenge	Until 1 July 2021

Note: *Data is at the end of 2020*

7.3 Measures on reduction debt burden and support of population and representatives of SME

Business activity of SME representatives was stopped for a long time due to introduction of quarantine measures and emergency situation associated with fighting against COVID-19 epidemic. This negatively affected to financial wellbeing of businesses and hired employees, who suffered most because of introduced quarantine measures. This kind of unprecedented situation also affected to population's capabilities and businesses to pay their credit liabilities. It may lead to reduction of financial stability of banks.

The Agency took a complex of measures to reduce debt burden of business entities and population, in a response to emergency situation. The list of measures are following:

- *to give an opportunity to receive credit payment-delays for the representatives of SME, from suffered spheres as a result of emergency situation regime, quarantine measures;*
- *to give an opportunity to restructure credits on preferential terms under government business support programs;*
- *to receive social benefits bank accounts and bank payment cards were issued freely and distantly;*
- *claim-related work was stopped in the period of emergency situation regime (file the case in court, claim the loan);*
- *for the period of the emergency, a ban has been imposed on the accrual of interest on loans with a delay of more than 90 days and fines and penalties for any late payments;*

In order to implement support measures to representatives SME, including individual entrepreneurs, affected by the introduction of an emergency situation regime on behalf of the Head of State instruction in March 2020, The National Bank together with the Agency have developed a Program of preferential lending to SME (hereinafter – Program). 12 banks were selected to participate in implementation of the program, which confirmed their financial state after passing quality assets independent assessment. 600 bln tenge were allocated for the implementation of the program.

Working capital to SMEs for up to 12 months, at a rate of up to 8% per year. Legal entities who referred to SME may receive a preferential credit until 3 bln tenge, individuals until 50 bln tenge.

Because of continuous epidemiological situation in the country to soften its consequences under the Head of National Bank's decision, additionally 200 bln tenge were allocated in October 2020 to provide credits for representatives of large businesses and entrepreneurs in agriculture complex who suffered after emergency regime. Except that, deadline prolonged until 31 December 2021.

Manufacturing industry and sphere of services that mostly suffered because of emergency situation were determined in the implementation of these changes. Representatives of large businesses in above-mentioned spheres of economy that suffered because of emergency situation may contact to banks to receive preferential loan. Maximum limit for large businesses is 6 bln tenge.

Complex of support measures for business representatives included also development of existing government programs. Under program "Business road map-2025" maximum amount of credits was increased to 7 bln tenge, guarantees from the Fund "Damu" were included as collaterals (up to 85% from credit amount), industry restrictions on the issuance of loans were excluded.

There were some changes in the program "The economy of simple things" as increasing the volume of credits up to 1 tln tenge, reduction of final rate for borrowers to6% and enlarging the coverage of industrial credits.

These measures allowed to avoid decline of economy crediting rates that at the end of 2020 increased to 5,6%, 14,6 tln tenge. It should be noted, that the quality of loan portfolio did not suffer from this measure – to 01.12.2020 the level of NPL in banking system, covered 7,9% (to 01.12.2020 – 8.1%).

SME crediting after slight decrease in April-May 2020 (-1,15%) started to change in positive way, and at the end of 2020 it increased to 5,5%, 4,2 tln tenge.

VIII

Activity of the Council on financial stability of the Republic of Kazakhstan

The Council on Financial Stability of the Republic of Kazakhstan in 2020 (hereinafter Council) considered most topical issues on financial stability; reduce of system risks and development of financial sector every quartile. At the second half of 2019 amendments were made to the Regulation on the Council, to strengthen the role of the Council as interdepartmental collegial body on financial stability issues. In addition, amendments were made in regulations to include financial organizations to the list of systematically important because of banks joining process and concentration growth in banking sector.

At the second half of 2019-2020 6 meetings of the Council were held, where the Council discussed current problems of financial sector, the ways of their solution and future perspectives. Particularly, the Council members considered following questions and approved their solutions in reporting period:

- Improving the efficiency of retirement assets management. The Council considered the problem of attracting managing companies and life-insurance companies to manage retirement assets in order to stimulate competitiveness in the market of retirement services and increasing activity of fund market in Kazakhstan;
- The decree of the President of the Republic of Kazakhstan on "Financial Stability Council of the Republic of Kazakhstan". The Council approved strengthening its' role as a consulting-advising body on financial stability questions. Strengthening the role of the Council was necessary due to mandate division on ensuring financial stability in a result of allocation of supervisory functions and creation of the Agency of the Republic of Kazakhstan on regulating and developing the financial market;
- Making amendments to the procedure classifying banks as systematically significant. Due to integrating systematically significant banks, reducing the number of banks, liquidation of insolvent banks, that affected to concentration and role of banks in the system, The Council recommended to accept amendments concerning to lowering the threshold values of indicator of systemic significance;
- Measures on reducing population debt burden. To limit the risk of overloading consumer loan segment and reduce the debt burden of the population, National Bank has taken measures, including a ban on the accrual of fines and commissions on overdue consumer debt, to limit loans to the citizen with a high level of debt burden, increased capital requirements;
- Assessment of the impact of COVID-19 and other shocks to the economy of Kazakhstan. The Council took into account analysis of the scale of crisis impact to wellbeing of population, financial stability and economic development of the Republic of Kazakhstan and recommended to take into account consequence assessments during developing and adopting anti-crisis measures and long-term development strategies;
- Rules on last resort loans, issued by National Bank of the Republic of Kazakhstan" (hereinafter- Rules). It was necessary to demonstrate functional division in the Rules, due to releasing mandate from National Bank on regulating and supervision in Agency. The Council approved project of Rules, under its' regulations the Council assesses solvency of bank under its supervision and examines quality of liabilities for advance. National Bank issues a loan secured by non-market assets.
- AQR results and bank recovery. The Council took into account results of AQR on the level of banking system and bank support measures in the framework of National Bank contribution to recovery of banking system.
- Macro prudential tools to recovery of deposit market. To solve problem of growth rate in deposit market JSC "Kazakhstan deposit insurance Fund" proposed to introduce new mechanism of additional contribution for banks as payment for system risk. Amount of deposit supposed to be equal to the amount of bank's contribution to the growth of deposit rates in the relevant market segment. This measure is aimed at limiting unfair competition for rates in the market and reduce of bank funding cost. The Council approved presented approaches on market recovery of retail deposits and recommended to bring new mechanism into action from 1 January 2021.
- Comprehensive analysis of bank's financial stability to determine the long-term sustainability of business models and prospects for development in the financial market. To assess the business-model's stability level in the medium term, National Bank together with the Agency conducted an analysis of bank's readiness to the worse type of crisis development for 14 banks that participated in independent assets quality assessment in 2019. According to the assessment, banks were divided into 3 groups, depending on the level of risk stability of business-model (low, medium and high risk). In a result of problem discussion, the Council approved proposed measures for increasing financial stability of banking sector and recommended to develop a strategy of bank's financial stability recovery with high and medium levels of risk;
- Macroeconomic scenario of National Bank to 2020-2021. In the framework of National Bank mandate, it informed the Council about medium-term forecasts on major macroeconomic indicators to 2020-2021.