National Bank of the Republic of North Macedonia
Financial Stability, Banking Regulations and Resolution Department

REPORT ON RISKS IN THE BANKING SYSTEM OF THE REPUBLIC OF NORTH MACEDONIA IN THE SECOND QUARTER OF 2021

September 2021

Contents

Summary

In the second quarter of 2021, the banking system continued to operate in conditions of uncertainty caused by the pandemics, yet amid improved epidemiological condition in the country. Thus, the number of newly infected decreased, the immunization accelerated and the restrictive measures were gradually lifted, which had a positive impact on the domestic economic activity. In such conditions, an intensive quarterly growth of the activities of the banking system was registered. On the funding sources side, the deposits continue to grow, supported by the funds paid by the government, in order to improve the liquidity of companies in conditions of health crisis. The credit activity of banks registered an intensive quarterly growth which is common for this part of the year, mostly driven by the increased household lending, amid solid positive contribution of corporate loans. The National Bank maintained the relaxed monetary policy in the second quarter of 2021, by keeping the key interest rate at the historically lowest level of 1.25%. Analyzing the current circumstances, the improved developments and perceptions of the global and domestic environment, the favorable movements of the banking system indicators for the first half of 2021, as well as the adequacy of the results from the performed stress-tests on the resilience of the banking system to assumed shocks, the National Bank Council decided to lift the temporary restriction of dividend distribution (which was adopted in February 2021) as of 03 August 2021.

The solvency of the banking system improved. As of 30.6.2021, the capital adequacy ratio equaled 17.3%, which is by half percentage points higher compared to the previous quarter of the year. The growth of own funds, as a result of the reinvested earnings and the recapitalizations in two banks, contributed to the increase in the capital adequacy ratio. The Common Equity Tier 1 capital predominates in the structure of own funds with over 90%, and is composed of capital positions of highest quality. Moreover, around 11% of banking system own funds are "free" own funds, above the necessary regulatory and supervisory requirement. The results of the conducted stress-testing of the resilience of the banking system to simulated shocks indicate satisfactory resilience and are slightly better compared with 31.03.2021, which corresponds to the higher initial level of the capital adequacy ratio, prior to the simulations.

In the second quarter of 2021, in conditions of further growth of the liquid assets of the Macedonian banking system, the liquidity indicators remained on satisfactory level. New Decision on the methodology for liquidity risk management has been applied since the beginning of 2021, which introduced an obligation for the banks to maintain a certain minimum level of so called liquidity coverage ratio. This regulation is a significant step forward towards harmonization of the domestic regulation with the international standard Basel 3, in relation to the minimum liquidity requirements. Specifically, this Basel liquidity standard measures the banks' liquidity resilience, i.e. the ability of banks to service liabilities that fall due within the next 30 days, amid assumed stress. As of 30.06.2021, the liquidity coverage ratio of the banking system was 184.2% (the regulatory minimum of this ratio is 100%), whereby the so called high-quality liquidity assets of the banking system is almost twice as high compared to the amount of net cash outflows, registered under stressful conditions for a period of 30 days. The results of the remaining regular simulations of individual and combined liquidity shocks confirm the satisfactory volume of liquid assets, which allowed banks to smoothly carry out their business activities. They confirm the appropriate liquidity risk management by banks and the satisfactory resilience to the assumed extreme liquidity outflows.

Non-performing loans grew in the second quarter of 2021, but their shares in total loans remained at the same level as of 31.03.2021. Observed by sector, the growth of non-performing loans is more common in corporate loans, although the non-performing loans to households registered a quarterly increase. Such movements mainly stem from loans with temporarily delayed payments due to the pandemic, but, on this basis, the intensity of materialization of the credit risk is currently under control and is lower than the expectations. Thus, in conditions of relatively solid growth, the share of non-performing to total loans, in the third quarter of the year, remained at the same level of 5.1% in corporate credit portfolio composed of households (on a quarterly basis, this share is also unchanged in total credit portfolio composed of non-financial entities and equals 3.5%). The coverage of non-performing loans with impairment slightly decreased from 0.3 percentage points, to a level of 69.4%, which is still solid.

In the first half of 2021, the banking system reported higher profit, compared to the same period last year. The higher profit mostly stems from non-interest rate income, which is a result of increased income based on collected previously written-off claims and higher net income from fees and commissions. The rates of return of average assets and average equity improved, compared to the first half of 2020 and reached levels of 1.5% and 12.6%, respectively. Most operational efficiency indicators have the same trend, amid growth of operating costs of 4.4%, compared to the same period last year.

The banking system's exposure to currency risk and risk from interest rate change in the portfolio of banking activities equal 9.4% and 10% of own funds, respectively, which is acceptable and below the prescribed limits.

Further dynamics of vaccination in the following period, as well as the threat of a new wave of COVID-19 pandemic in autumn, will significantly affect the recovery dynamics of the economic activity and consequently, the activities of the banking system. The National Bank will continue to monitor the situation closely and appropriately undertake measures, when necessary.

I. Structure of the banking system

1. Number of banks and ownership structure of the banking system

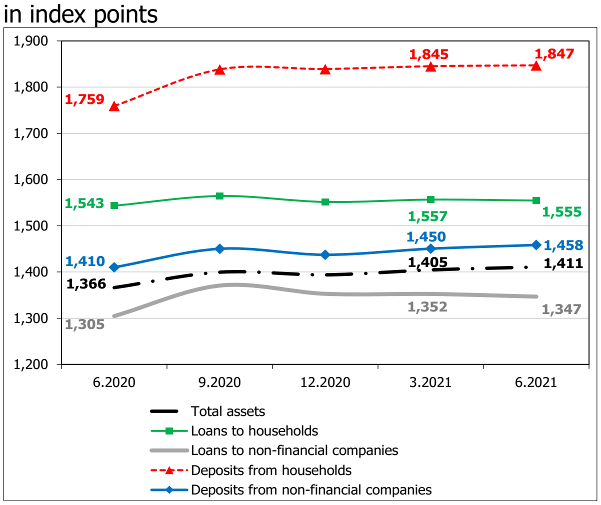
The number of banks in the Republic of North Macedonia remained unchanged as of 30.06.2021, compared to the previous quarter and equaled fourteen banks. Also, the number of banks that are predominantly owned by foreign shareholders (ten banks), as well as the number of subsidiaries of foreign banks (six banks) remains unchanged. The number of banks reduced by one, after the cut-off date of this report (July 2021), as a result of merging of two banks which were subsidiaries of the same foreign bank.

Table 1
Structure of major balance sheet positions, by banks' majority ownership (as of 30.06.2021)
in millions of denars and in %

Type of ownership	Number of banks	Capital and reserves		Assets		Loans to non-financial sector		Deposits from non-financial sector		Total revenues*		Financial result*	
		Amount	In %	Amount	In %	Amount	In %	Amount	In %	Amount	In %	Amount	In %
Banks in dominant ownership of foreign shareholders	**10**	**57,432**	**74.8%**	**431,482**	**71.5%**	**299,686**	**81.6%**	**309,597**	**69.6%**	**18,820**	**74.2%**	**5,958**	**70.0%**
- subsidiaries of foreign banks	*6*	*50,765*	*66.1%*	*363,088*	*60.2%*	*248,629*	*67.7%*	*264,704*	*59.5%*	*16,060*	*63.3%*	*5,320*	*62.5%*
- Austria	2	8,352	10.9%	73,144	12.1%	52,747	14.4%	44,354	10.0%	2,688	10.6%	305	3.6%
- Bulgaria	1	1,242	1.6%	10,873	1.8%	7,505	2.0%	7,573	1.7%	398	1.6%	9	0.1%
- Greece	1	17,377	22.6%	105,765	17.5%	75,558	20.6%	83,799	18.8%	5,499	21.7%	2,138	25.1%
- Slovenia	1	13,384	17.4%	100,823	16.7%	64,881	17.7%	81,384	18.3%	5,035	19.8%	2,176	25.6%
- Turkey	1	10,411	13.6%	72,482	12.0%	47,938	13.1%	47,594	10.7%	2,441	9.6%	691	8.1%
- other banks in dominant foreign ownership	*4*	*6,667*	*8.7%*	*68,394*	*11.3%*	*51,057*	*13.9%*	*44,893*	*10.1%*	*2,760*	*10.9%*	*638*	*7.5%*
- Bulgaria	2	3,175	4.1%	26,414	4.4%	18,156	4.9%	19,169	4.3%	1,387	5.5%	359	4.2%
- Germany	1	2,913	3.8%	34,660	5.7%	27,825	7.6%	20,607	4.6%	1,044	4.1%	222	2.6%
- Switzerland	1	578	0.8%	7,320	1.2%	5,076	1.4%	5,117	1.2%	329	1.3%	57	0.7%
Banks in dominant ownership of domestic shareholders	**4**	**19,321**	**25.2%**	**171,925**	**28.5%**	**67,466**	**18.4%**	**135,042**	**30.4%**	**6,547**	**25.8%**	**2,549**	**30.0%**
- private ownership	*3*	*16,485*	*21.5%*	*160,466*	*26.6%*	*67,430*	*18.4%*	*135,042*	*30.4%*	*6,434*	*25.4%*	*2,528*	*29.7%*
- state ownership	*1*	*2,836*	*3.7%*	*11,459*	*1.9%*	*36*	*0.0%*	*0*	*0.0%*	*113*	*0.4%*	*20*	*0.2%*
Total:	**14**	**76,753**	**100.0%**	**603,407**	**100.0%**	**367,152**	**100.0%**	**444,639**	**100.0%**	**25,367**	**100.0%**	**8,507**	**100.0%**

Source: National Bank, based on data submitted by banks.
*Total income and financial result are calculated for the last twelve months (30.6.2020-30.6.2021).

Chart 1
Herfindahl index
in index points



Source: NBRM, based on data submitted by banks.

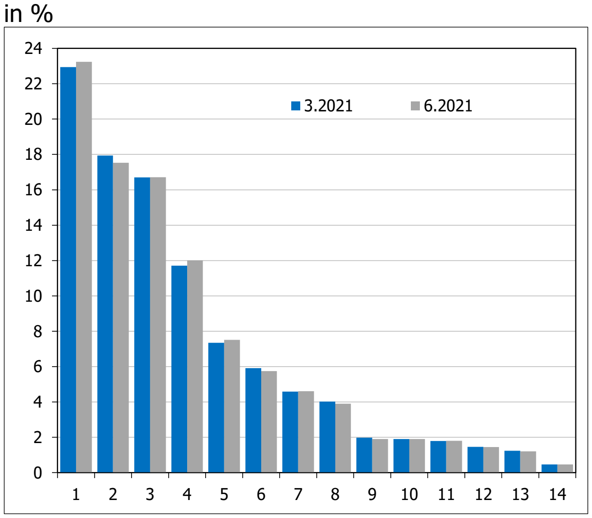
In the second quarter of 2021, the banks predominantly owned by foreigners continue to have the largest share in the structure of major balance sheets positions of the banking system. The changes compared to the previous quarter are minimal. The share of banks in foreign ownership in the total loans to non-financial sector continues to be the most pronounced, (81.6%). The share of banks with predominant foreign ownership to total loans continuously grows and as of 30 June 2021 is above the ten-year average of these shares by 2.6 percentage points, unlike other positions which

Table 2
Indicators of concentration of major balance sheet positions in the three and the five largest banks
in %

Position	30.06.2021		31.03.2021	
	CR3	**CR5**	**CR3**	**CR5**
Total assets	57.5	77.0	57.6	76.6
Loans to households	60.1	78.2	60.0	78.1
Loans to non-financial companies	49.0	76.6	49.3	76.7
Deposits from households	70.9	82.4	71.1	82.4
Deposits from non-financial companies	55.7	79.6	55.5	79.2
Financial result*	74.2	87.4	76.4	89.2
Total revenues*	61.4	77.3	62.8	78.6

Source: National Bank, based on data submitted by banks.
*Total income and financial result are calculated for the last twelve months (30.6.2020-30.6.2021).

Chart 2
Share of individual banks in the total assets of the banking system
in %



Source: National Bank, based on data submitted by banks.

are under the ten-year average by 1 to 2.3 percentage points.

The Herfindahl index[1], for individual categories of activities by banks, registers no significant changes in the second quarter of 2021. In all remaining categories of activities, the Herfindahl index is **within the acceptable values**[2], except in the household deposits, where in the fourth quarter it is slightly above the acceptable level of 1800 index points.

On a quarterly basis, the indicators for the share of three and five largest banks in the banking system, registered no significant changes in individual categories of activities. The financial result indicators are exceptions, where the share of three and five largest banks decreased quarterly by 2.2 and 1.8 percentage points respectively, as well as in the share of these banks in the total income, where it also decreased by 1.4 and 1.3 percentage points, respectively.

The difference in the amount of the assets between banks remains high, whereby the spread between the bank with highest share (23.2%) and the bank with the lowest share (0.5%) in total assets increased on a quarterly basis, by 0.3 percentage points. Moreover, six banks have individual market shares lower than 2% (their joint market share is 8.7% and is almost unchanged compared to the previous quarter). Observed by individual banks, three banks registered a slightly more pronounced increase of the market shares, which is enabled through the increase in deposit activity, as well as recapitalization.

[1] The Herfindahl index is calculated according to the formula $HI = \sum_{j=1}^{n} (S_j)^2$, where S is the share of each bank in the total amount of the analyzed category (e.g., total assets, total deposits, etc.), where n denotes the total number of banks in the system.
When the index ranges from 1,000 to 1,800 points, the concentration ratio is considered to be acceptable.

II. Banks' risks

1. Credit risk

The uncertainty related to the developments surrounding the coronavirus pandemic[3] remain a significant factor of the credit risk exposure of banks. Moreover, the easing in the repayment of loans that were under so called COVID measures, i.e. Moratorium, was completed in almost all clients[4] by June 2021. In such conditions, there was a certain materialization of the credit risk in the second quarter of 2021, which is perceived through the higher level of non-performing loans that increased by 3.7%. However, given the further credit support to non-financial sector, the rate of non-performing loans remains unchanged compared to the previous quarter and amounts to 3.5%. From a sectoral aspect, the growth of non-performing loans in absolute amount is more common in corporate loans (denar 253 million, or 2.9%), but the percentage growth is more pronounced in household loans (denar 193 million, or 5.3%). The ratio between non-performing loans and total loans remained at the level of the previous quarter in both segments of the banks' credit portfolio and equals 2.0% for households, and a historically lowest level of 5.1% in the credit portfolio of corporate loans.

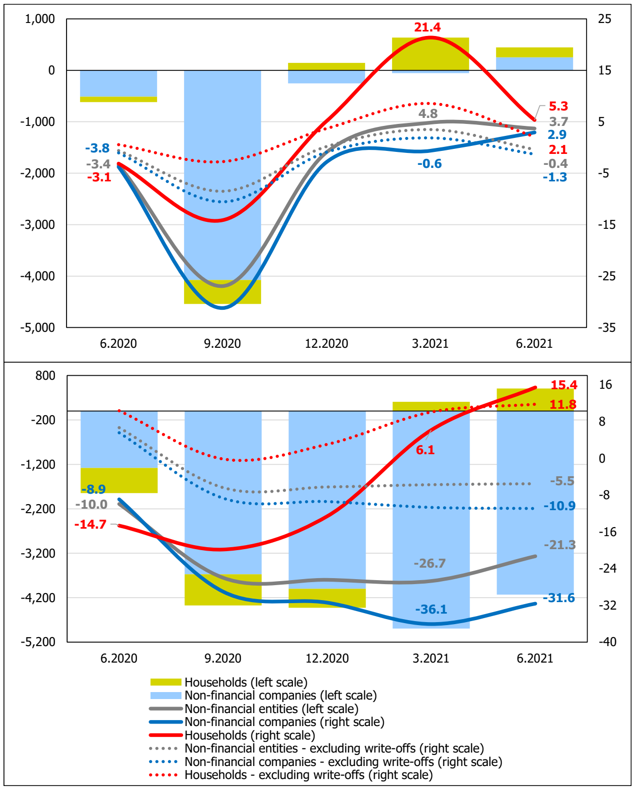
The coverage of non-performing loans with impairment was maintained at a relatively high level, despite the slight decrease in the second quarter of 2021 (to 69.4%), which along with the satisfactory volume and quality of own funds, limited the adverse effects on the banks' solvency from default of these loans. This is also confirmed with the results of the stress testing, according to which a significantly high growth of non-performing loans would affect the solvency of the banking system.

An increased materialization of the credit risk could be expected in the following period, as well as growth of non-performing loans. This is primarily referred to clients that deal with more pronounced financial difficulties, i.e. have unstable/ uncertain monthly income, as well as those whose income is related to activities mostly affected by the negative effects from the corona crisis. In the first half of 2021, the banks restructured the liabilities of part of the borrowers with pronounced financial difficulties. The restructured loans due to corona crisis have a very small share in total regular loans to non-financial sector (0.7%) and for now cannot be considered a significant risk factor. But, given the prolonged duration of the pandemic, an increased volume of restructuring could be expected in the following period. The restructuring should be carefully and objectively implemented, so the banks could maintain the good quality of the credit portfolio and at the same time contribute to easier overcoming of the COVID-19 crisis and further smooth functioning of the borrowers.

Chart 3

Quarterly (up) and annual (down) growth rate of non-performing loans to non-financial entities

in millions of denars in %



Source: National Bank, based on data submitted by banks.
Note: The lines with dots show the growth of non-performing loans by excluding the effect of all mandatory write-offs made in the period 1.1.2016 - 30.06.2021. Starting from December 2019, the data also contains the collected compulsorily written-off loans.

1.1. Materialization of credit risk in banks' balance sheets

In the second quarter of 2021, total non-performing loans to non-financial sector increased by 3.7% (or by denar 459 million). The increase of non-performing loans is mainly due to loans for which the payment was temporary delayed due to pandemic.

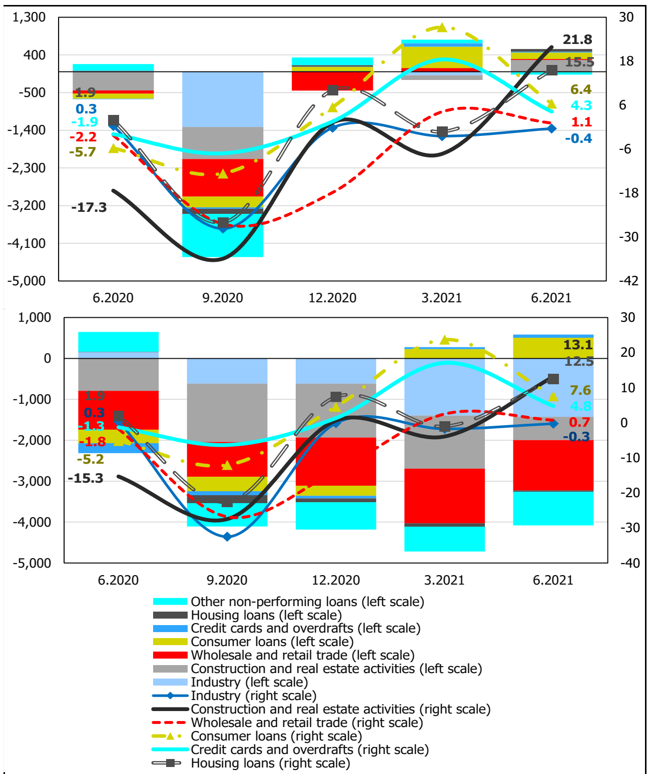
The National Bank's measures for regulatory flexibility allowed banks to approve grace periods (moratorium of payments) on loan liabilities, and thus contributed to a slowdown in the materialization of credit risk and creating new non-performing loans. Taking into account the uncertainty around the duration and consequences of the coronavirus pandemic and the subsequent uncertainty over the clients' regular loan repayment, as well as the fact that the grace period expired for almost all loans (97% as of 30.06.2021) with amended contractual terms, an increased materialization of the credit risk can be expected in the following period, as well as growth of non-performing loans, especially loans with granted second grace period. In the second quarter of 2021, on this basis, non-performing loans increased in both segments of banks' credit portfolio. Loans with approved second grace period are assessed as the most significant potential source of non-performing loans. These loans account for 5.6% of total regular loans to non-financial sector as of 30.06.2021[5], and are most common in catering service (31.4% of

[3]Despite the decreased number of newly infected people and fulfilled requirements for the commencement of mass vaccination, the uncertainty remains in the second quarter of 2021, amid occurrence of new variants of the virus and relatively low percentage of immunization.

[4]The share of loans under moratorium as of 30.06.2021 amounted to only 1.2% of total regular loans, with higher share of 2.6% in the corporate segment.

[5] Observing individual sectors, the loans with approved second grace period participate with 6.7% and 4.6% in total corporate and household loans, respectively.

Chart 4
Quarterly (up) and annual (down) growth rate of non-performing loans, by activity (non-financial corporations) and by credit product (households)



Source: National Bank's Credit Registry, based on data submitted by banks.

loans), as one of the most affected economic sectors by the corona crisis.

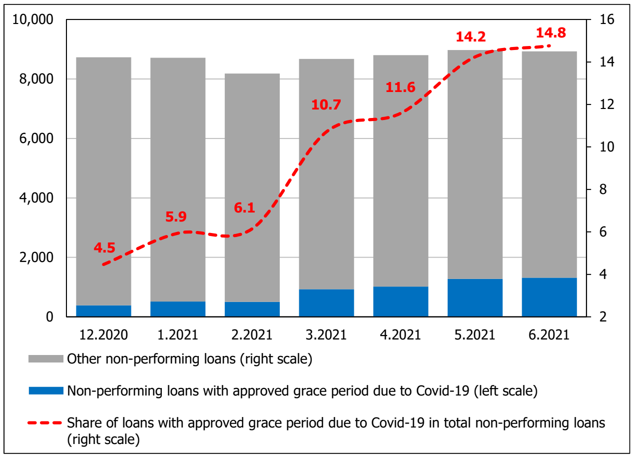
In the second quarter of 2021, the increase in the volume of non-performing loans is mostly a result of their increase to companies[6]. Non-performing corporate loans increased quarterly by 2.9% or by denar 253 million[7], ending the downward trend since the beginning of the corona crisis. Non-performing loans in the corporate credit portfolio register different movements in individual economic activities, such as more pronounced increase[8] in customers from "construction", "catering industry" and "food industry", and a significant decline in "agricultural industry", "transport and storage" and "supply of electricity, gas, steam and air conditioning". The decrease in non-performing loans in individual activities is mostly a result of collections (mostly through takeover of other person's debt), and in certain cases it is due to mandatory write-offs. The new non-performing loans are mostly due to the default of several major clients, for which the repayment of loans was temporary "frozen" due to corona crisis. Non-performing loans with approved easing due to corona crisis account for about 15% of total non-performing corporate loans. Taking into account that a relatively small part of corporate loans suffered amendments of the contractual terms due to the pandemic[9], the creation of new non-performing loans from the "eased" loans, is so far less pronounced in the corporate credit portfolio, compared to household loans.

[6]Non-performing corporate loans prevail in the total non-performing portfolio with a share of 69.2%.
[7]If we exclude the effect of the mandatory net write-offs, then the non-performing corporate loans register a decline of 1.3% as a result of the higher amount of collected previously compulsory written-off loans, compared to the amount of written-off loans during the second quarter of 2021.
[8]Non-performing loans to clients from "education" and "professional, scientific and technical activities" register lower growth.
[9]As of 30.06.2021, the loans to companies with approved grace period due to corona crisis participated with 19.4% in total corporate loans, while their share in the household portfolio was 39.6%.

Chart 5

Non-performing loans to non-financial companies and share of non-performing loans with approved grace period due to COVID-19 in total non-performing loans of the sector

in millions of denars in %

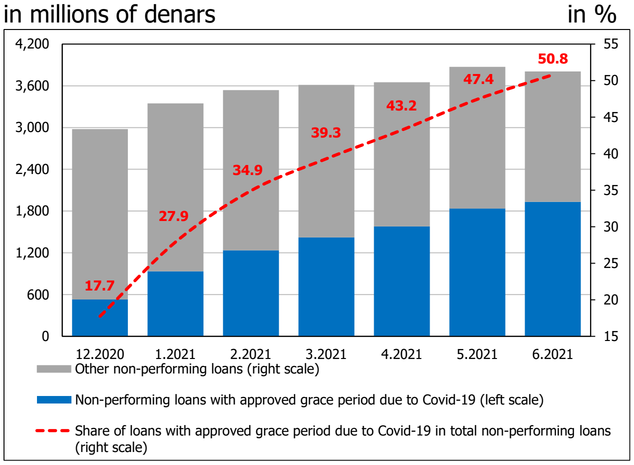


Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 6

Non-performing loans to households and share of non-performing loans with approved grace period due to COVID-19 in total non-performing loans of the sector

in millions of denars in %



Source: National Bank's Credit Registry, based on data submitted by banks.

Non-performing loans to households increased by 5.3%, or by denar 193 million. Around 80% of the growth in non-performing loans to households accounts for the non-performing consumer loans, which increased by 6.4% or by denar 154 million. A significant percentage growth is registered in non-performing housing loans (by denar 60 million, or by 15.5%). The new non-performing loans mainly arise from the transition of claims from multiple customers on individual small amounts which were granted a grace period due to the conditions related to COVID-19, to non-performing status. Non-performing loans that arise from loans which were under moratorium account for around half of total non-performing loans to households as of 31.06.2021 and entirely determine the quarterly growth of total non-performing loans in this sector.

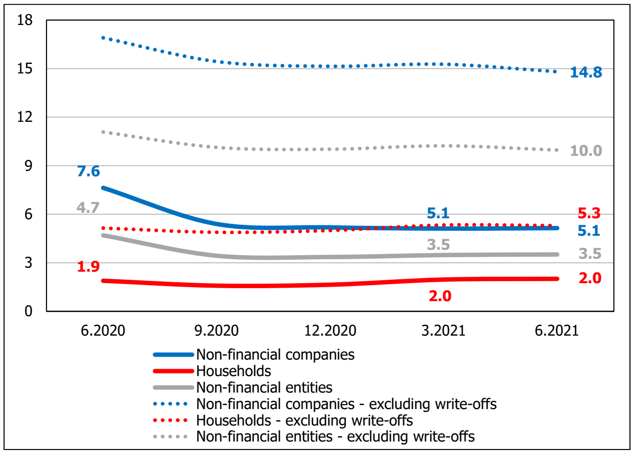
Despite the growth of non-performing loans, the quality of banks' credit portfolio is unchanged in the second quarter of 2021, as a result of the enhanced credit support. As of 30.06.2021, the share of non-performing loans in the total loans to the non-financial sector was 3.5%[10]and remained at the same level as in the first quarter of 2021, in both segments of banks' credit portfolio.

In the corporate credit portfolio, the rate of non-performing loans remained at the historically lowest level of 5.1%. Observed by individual activities, this rate registered significant deterioration in the "catering industry", as one of the most affected economic sectors by the corona crisis, and reached 8.6% (from 5.3% as of 31.03.2021). The rate of non-performing corporate loans (excluding the effect of net write-offs) was 14.8% and with a decrease in

---

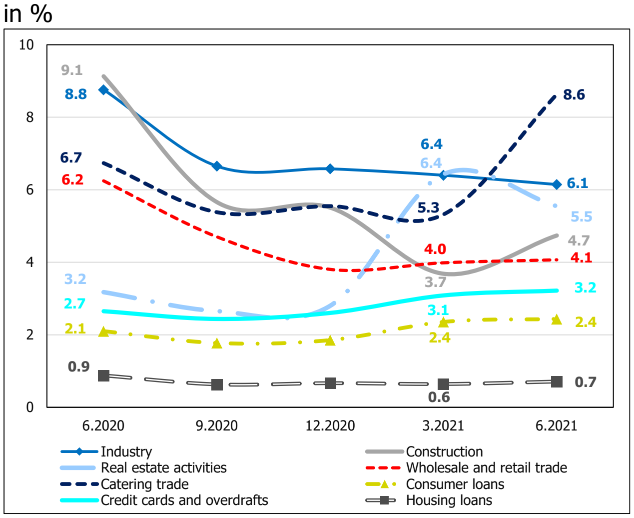
[10] Without the effect of the mandatory net write-offs, the share of non-performing to total loans equals 10.0% and is below the 10-year moving average (11.0%).

Chart 7
Rate of non-performing loans of non-financial corporations, by sector
in %



Source: National Bank, based on data submitted by banks.

Chart 8
Rate of non-performing loans, by activity and credit product
in %



Source: National Bank's Credit Registry, based on data submitted by banks.

the second quarter of 2021, it moved away from its 10-year average (15.5%).

In the household portfolio, 2% of total loans are non-performing as of 30.06.2021. The rate of non-performing loans to households (excluding the effect of net write-offs) was 5.3% and is almost exactly between the minimum value of this rate for the next 10 years (4.9%) and its 10-year average (5.8%).

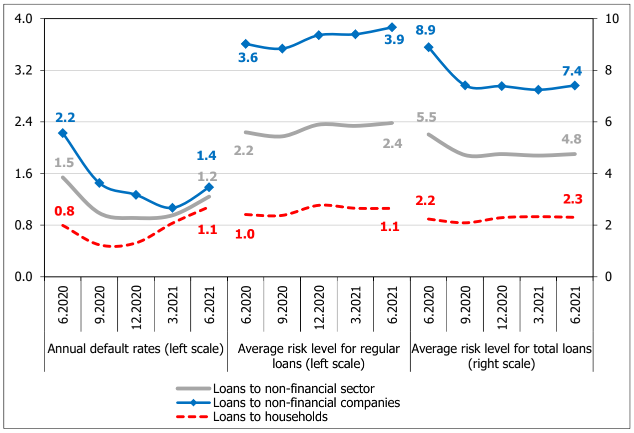
The annual rate of default of regular credit exposure of the overall non-financial sector and separately, of both its segments, deteriorated in the second quarter of 2021. Such movements are the result of the increased migration to non-performing status of part of the loans whose grace period has already expired. The growth of the annual rate of default is not followed by an adequate average risk growth (average provision) of regular loans.

The negative effects of the possible complete default on non-performing loans, i.e. the volume of unexpected losses on this basis, have a limited impact on the solvency of the banking system. Namely, a significant portion of the non-performing loans are covered with impairment (69.4%). Thus, the non-provisioned amount of non-performing loans is only 5.2% of own funds of the banking system and amid assumptions of its complete default, the solvency of the system wouldn't be jeopardized.

Chart 9

Annual rates of default and average risk level of regular and total loans, by sector

in %

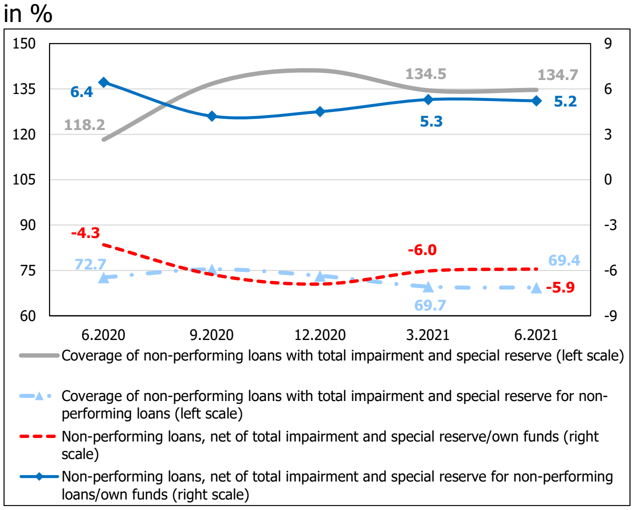


Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 10

Coverage of non-performing loans with impairment

in %



Source: National Bank's Credit Registry, based on data submitted by banks.

The restructured loans, as loans with reduced credit quality, registered low share in total loans, which equaled 3.0% as of 30.06.2021. Almost the entire restructured credit portfolio (around 94%) includes legal entities, whereby the share of these loans to corporate loans is also low and equals 5.8%.

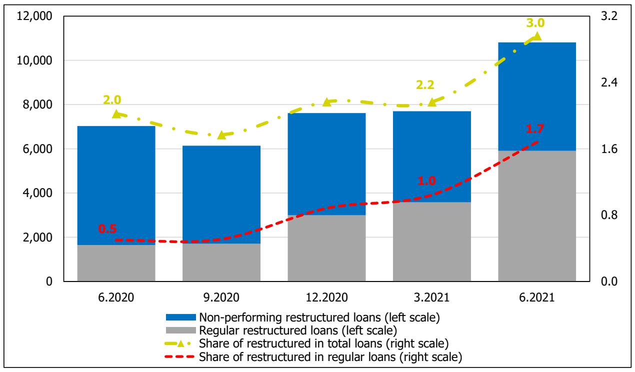
Despite the low volume, the quality of regular restructured loans should be closely monitored, due to their rapid growth. Namely, in the second quarter of 2021, the regular restructured loans registered significant growth of 65.2% or denar 2.332 million. The share of regular loans in the structure of restructured loans registered an increase since September 2020[11], whereby, they exceeded the level of non-performing restructured loans on 30.06.2021. Regular restructured loans could be a source of new non-performing loans. Their amount is so far low and does not represent a factor that could lead to more significant growth of non-performing loans.

However, by exhausting the regulatory relief, for the borrowers who are still experiencing pronounced financial difficulties even after the grace period has expired, the banks are expected to use some of the available mechanisms for amending the contractual terms, such as extension of maturity, change in the amount and the dynamics of repayment of credit exposure, including approval of new or extension of the existing grace period and similar.[12] Thus, some banks have restructured the liabilities of some of the clients with deteriorated financial status. **Loans that were restructured due to the**

[11] The share of regular restructured loans as of 30.09.2020 was 27.8%, and their share in total restructured loans increased for more than 25 percentage points in the period 01.10.2020-30.06.2021.

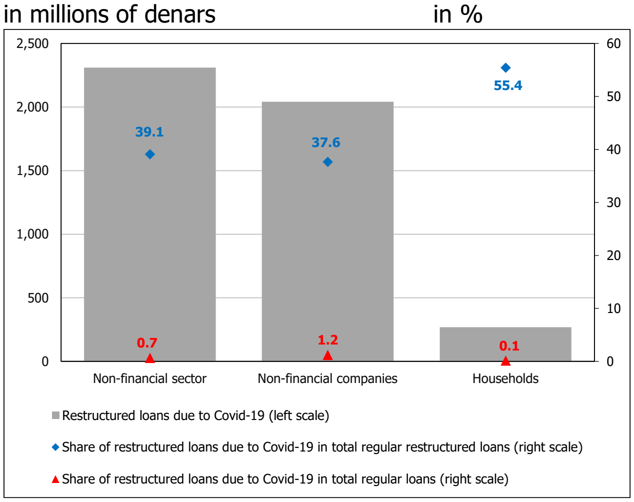
[12] The regulatory amendments in March 2020, enabled the borrowers to use the easing of their credit burden for a total of two changes in the contractual terms, made no later than 30 September 2020. As of 01.10.2020, each new change of the contractual terms due to deteriorated financial status of the borrower is treated as restructuring and applies the usual (prescribed) stricter rules in restructuring, according to the regulation. Loans in which more than two changes in the contractual terms were applied in the period March-September 2020, due to the clients' deteriorated financial position, are treated as restructured.

Chart 11
Restructured loans to non-financial entities by status
in millions of denars in %



Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 12
Restructured loans due to COVID-19 as of 30.06.2021, by sector
in millions of denars in %



Source: National Bank's Credit Registry, based on data submitted by banks.

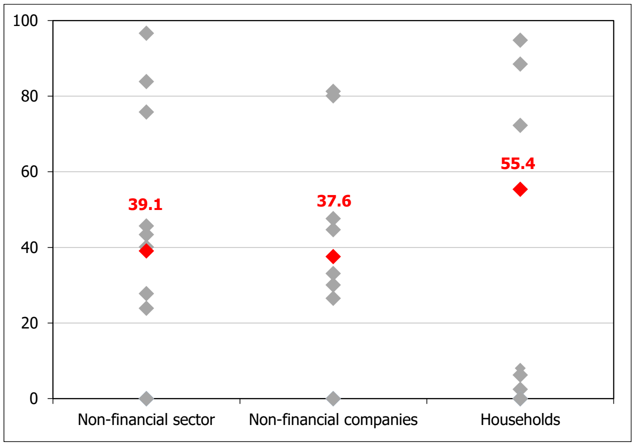
COVID-19[13]**equaled to denar 2.310 million during the first half of 2021 and participated with almost 40% in regular restructured loans as of 30.06.2021**[14]**.** At the same time, most of the new regular restructured loans (around 80%) are driven by these loans in the first half of the year. However, loans that were restructured due to corona crisis accounted for only 0.7% of total loans and 1.2% of regular corporate portfolio.

Most of the loans with eased terms of lending are already in repayment since the grace period expired as of 30.06.2021. As of 30.06.2021, the grace period has not expired only for loans in the amount of Denar 4,243 million, or 1.2% of total loans to non-financial sector. These loans are entirely related to non-financial companies and account for 2.6% of the regular corporate loan portfolio. Data show that loans with unexpired grace period refer to loans which underwent second easing of contractual terms[15].

The banks assessed the loans with granted grace period, especially those with second grace period, as riskier and provided higher coverage with provisions (2.8% for total loans with granted grace period), compared to total loans to non-financial sector (2.4%) in individual sectors. On the other hand, the banks are less careful with the coverage of expected credit losses from non-performing loans that were under moratorium with provisions. Thus, to a lesser extent, these loans are covered with impairment

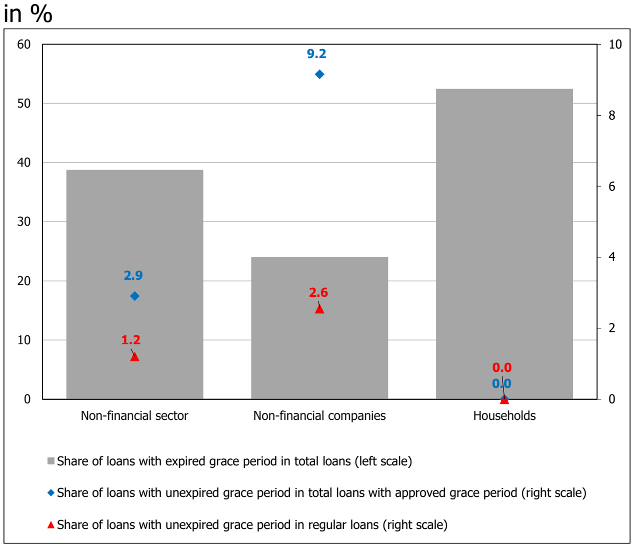
[13] Corporate loans are predominant in the loans that are restructured due to corona crisis, with a share of 88.3%.
[14] Observed by individual sectors, loans that are restructured due to COVID-19 accounted for 55.4% and 37.6% of regular restructured household and corporate loans, respectively.
[15] The second wave of easing of contractual terms performed in September 2020 was aimed at those clients that were mostly affected by the corona crisis and consequently, it was lower than the first wave in April and May 2020 (when about half of the total loan portfolio was covered, i.e. 60% of household loans and one third of the corporate loans).

Chart 13
Share of restructured loans due to COVID-19 in total regular restructured loans, by bank
in %



Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 14
Loans with expired and loans with unexpired grace period due to COVID-19 on 30.06.2021, by sector
in %



Source: National Bank's Credit Registry, based on data submitted by banks.

(50.6%), compared to total non-performing loans (69.4%)[16].

The lower quality of these loans can be observed from the growth of non-performing loans and the subsequent deterioration of the ratio between non-performing and total loans, from 0.7% on 31.12. 2020 to 3.0% on 30.06.2021. The accelerated transfer to non-performing status of loans with second change in contractual terms should be noted[17], and will most likely cause a more significant materialization of credit risk in the following period. When conducting combined simulation[18] of deterioration in the quality of loans with approved grace period, the capital adequacy ratio of the banking system would decrease by about 5.8 percentage points to a level of 11.5%.

---

[16] In the corporate loan portfolio, the average level of risk of the non-performing loans with granted grace period and total non-performing loans is 49.3% and 72.1%, respectively. In the household segment, the average provisioning is 51.5% for loans with granted grace period and 62.9% for total non-performing loans.

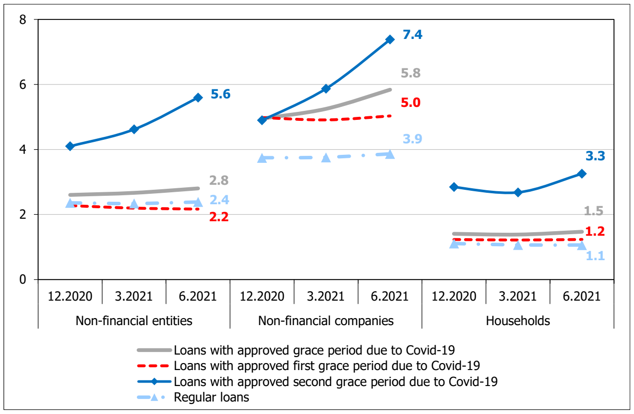
[17] So far, the rate of non-performing loans is lower for the loans with granted second grace period and as of 30.06.2021 it was 1.9%.

[18] The combined simulation is based on the following shocks: 1. non-performing loans with granted grace period, due to COVID-19, are covered with provisions identical to the total non-performing loans in the banks' credit portfolio; 2. 60% of regular loans with granted second grace period acquire non-performing status; 3. 30% of regular loans with granted first grace period acquire non-performing status.

Chart 15

Average level of credit risk with approved grace period due to COVID-19 and total loans, by sector

in %

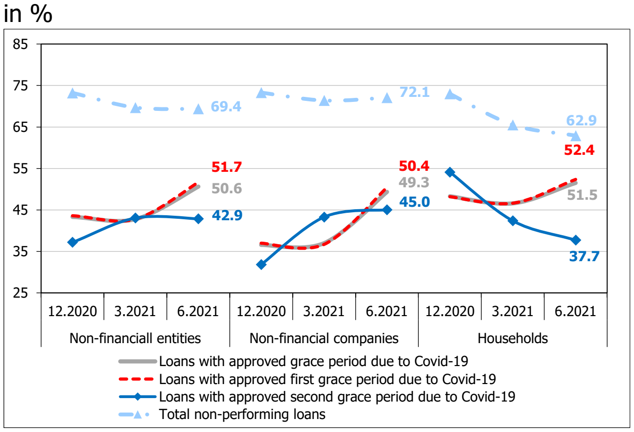


Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 16

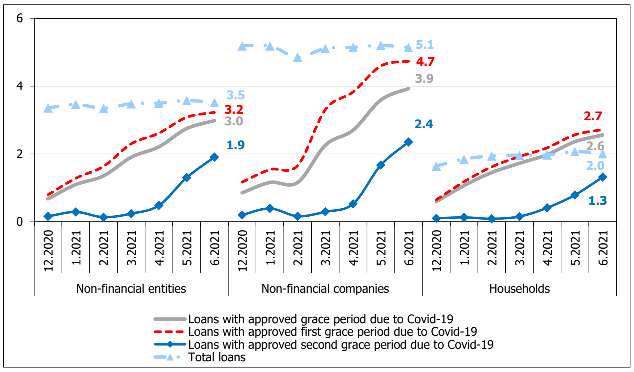
Coverage of non-performing loans with approved grace period due to COVID-19 and total non-performing loans with impairment, by sector

in %



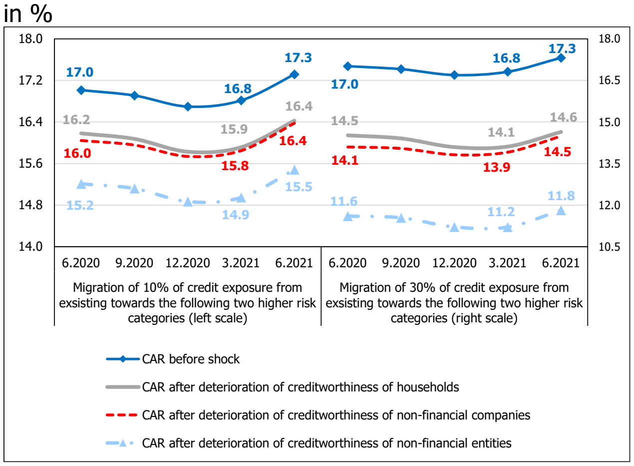
Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 17
Non-performing loan rate for loans with approved grace period due to COVID-19 and total loans, by sector
in %



Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 18
Capital adequacy ratio before and after hypothetical shocks of selected segments of credit exposure
in %

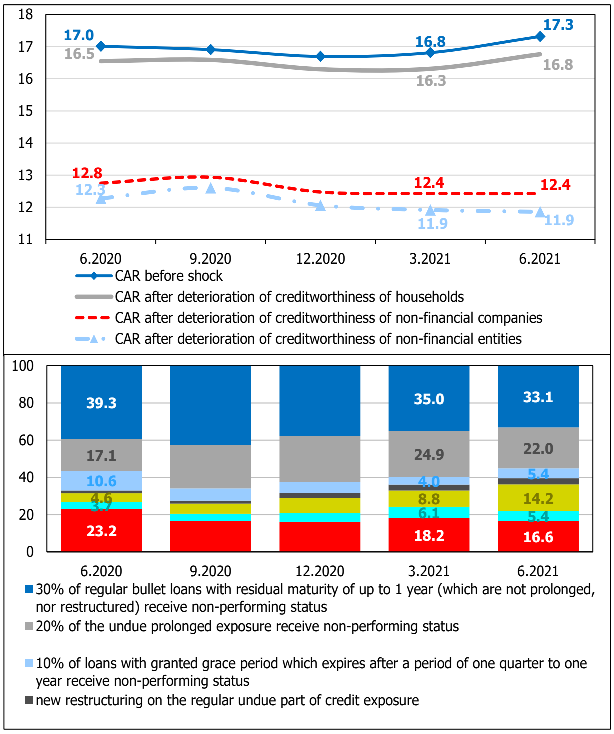


Source: National Bank's Credit Registry, based on data submitted by banks.

1.3. Stress-testing of the resilience of the banking system to increased credit risk

The results of stress testing confirm the resilience of the banking system to the simulated credit risk shocks. The capital adequacy ratio of the banking system does not go below 8% in individual hypothetical simulations. In case of the most extreme, but less possible simulation for a migration of 30% of the credit exposure to non-financial corporations, from the existing to the next two higher risk categories, the capital adequacy ratio of the banking system is reduced by 5.5 percentage points compared to the initial level of capital adequacy ratio (which is almost identical result to one in the previous quarter). Analyzed by activity, the largest negative influence on the capital adequacy ratio was made by the assumed deterioration of the credit exposure quality with those activities with the highest concentration of the total credit exposure. According to individual credit products of households, the greatest effect on the capital adequacy ratio has the hypothetical

Chart 19
Capital adequacy ratio before and after hypothetically combined shocks of various credit exposure segment (top) and contribution of individual shocks to the reduction of the capital adequacy ratio (bottom)
in %



Source: National Bank's Credit Registry, based on data submitted by banks.

deterioration of the consumer loans quality, as the most common credit product.

The results of the stress test simulations for the concentration in the loan portfolio towards the non-financial sector show that the banks are less sensitive to materialization of concentration risk. The improvement in the results stems from the higher capital adequacy before the simulations, which caused a decrease in the concentration level in the non-financial sector's loan portfolio[19].

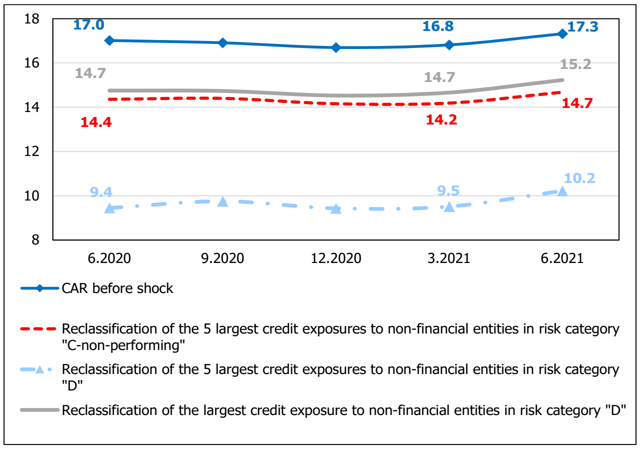
The banking system resilience is also examined by extreme simulation based on a combination of seven hypothetical shocks of worsening of the quality of the credit portfolio to the non-financial sector[20]. Even in case of this extreme simulation, the capital adequacy of the banking system does not come below the prescribed minimum. Namely, after this simulation, the capital adequacy ratio reduced by 5.5 percentage points, to 11.9%, which is worse result compared to the end of the previous quarter (4.9 percentage points and 11.9%). The largest effect on the capital adequacy ratio is that of the assumed deterioration in the quality of bullet loans, which contributes by approximately one third of the total reduction of capital adequacy amid combined shock. In addition, the effect of the hypothetical worsening of the quality of prolonged loans (accounting for 22.0% of the total reduction of the capital adequacy ratio of the banking system) is also significant, as well as the assumed complete default on non-performing loans of the non-financial sector

---

[19] The annual growth of own funds was 6.4%, while the five and ten largest exposures to the non-financial sector increased by 2.6% and 2.0%, respectively. This contributed to reducing the share of the five and ten largest exposures to the non-financial sector in own funds to 47.4% and 73.9%, respectively on 30 June 2021 (compared to the shares of 49.1% and 77.1%, respectively on 31 March 2021).
[20] The seven hypothetical shocks are the following: 1. complete default on the existing non-performing loans; 2. the total past due loans receive non-performing status; 3. the total regular undue restructured exposure receives non-performing status; 4. banks carry out new restructuring of the regular undue part of the credit exposure which according to the volume correspond with the amount of restructured exposures which received a non-performing status, from the previous item; 5. 10% of loans with granted grace period which expires after a period of one quarter to one year receive a non-performing status; 6. 20% of the undue prolonged exposure receives a non-performing status; 7. 30% of regular bullet loans with residual maturity up to one year (which are not prolonged, nor restructured) receive a non-performing status.

Chart 20 Effects on the capital adequacy ratio from reclassification of the largest credit exposures to non-financial entities (including the connected parties) in a higher risk category

in %



Source: National Bank's Credit Registry, based on data submitted by banks.

(16.6% of the total decline in capital adequacy in the combined shock). Significantly larger contribution was made by the regular restructured loans (14.2% of the total decrease in the capital adequacy on 30 June 2021, as opposed to the contribution of 8.8% on 31 March 2021), given that in the first half of 2021, some of the banks started to restructure the liabilities of the money-troubled clients due to COVID-19.

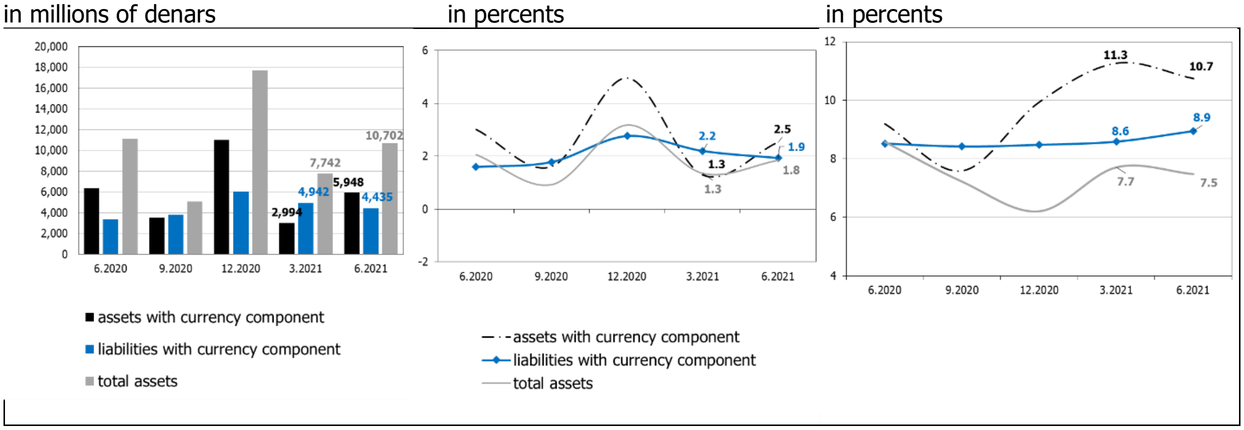
2. Currency risk

The banking system's exposure to currency risk is maintained at a relatively low level, although the indicators for direct exposure to currency risk increased in the second quarter of 2021. The increase in the indicators results from the faster quarterly widening of the gap between assets and liabilities with currency component and, consequently, in the open currency position, compared to the rise in own funds. The gap widening is due to the faster increase in active positions denominated in denars with FX clause due to the increased investments of banks in government bonds and denar loans with FX clause, amid moderate growth of liabilities with currency component. As of 30 June 2021, all banks were in line with the prescribed limit of 30% for the aggregate currency position to own funds ratio.

Despite the quarterly decrease in the share of loans with currency component in the non-financial entities portfolio, these loans still take relatively high portion in the banks' loan portfolios.

The high share of loans with currency component indirectly exposes the banks to the currency risk their clients are exposed to, the possible emergence of which would cause credit risk materialization, as well. However, banks' exposure to both direct and indirect currency risk is limited due to the strategy of maintaining a stable denar exchange rate.

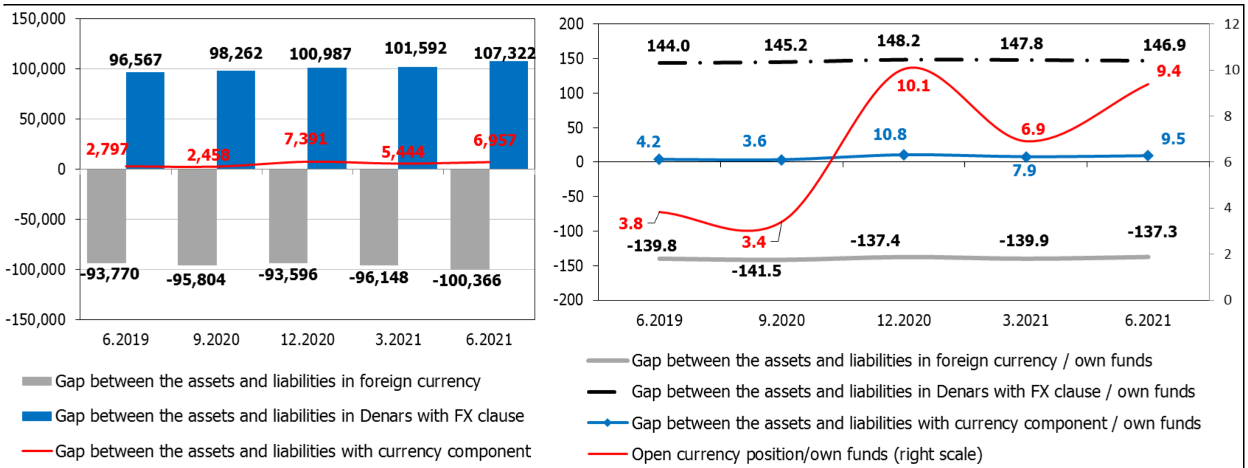
Chart 21
Quarterly (left and middle) and annual (right) growth in total assets, and assets and liabilities with currency component*
in millions of denars   in percents   in percents



Source: National Bank, i.e. Report on the open currency position based on the data submitted by banks..
* The assets are on a net basis, reduced by the impairment of claims that are classified in risk categories "C", "D" and "D", in accordance with the regulations on currency risk management. DBNM is not included in the analysis, because pursuant to the legislation, the regulations for the open foreign exchange position do not apply to the DBNM.

As of 30 June 2021, the gap between assets and liabilities with currency component was positive and equaled Denar 6,957 million, which is an increase of 27.8%, or by Denar 1,513 million compared to 31 March 2021. Given the simultaneous smaller growth of own funds (6.3%), the share of the gap between assets and liabilities with currency component in own funds increased on a quarterly basis and reached 9.5% (the open currency position occupies 9.4% of own funds of the banking system[21] and is at the level of the ten-year average for this ratio). The increase in the gap between assets and liabilities with currency component results from the higher growth of assets with currency component (of 2.5% or Denar 5,948 million),[22] compared to the growth of liabilities with currency component (of 1.9% or Denar 4,435 million).[23]

Chart 22
Structure of the gap between assets and liabilities with currency component (left) and share of the assets and liabilities with currency component in own funds (right)
in millions of denars in %



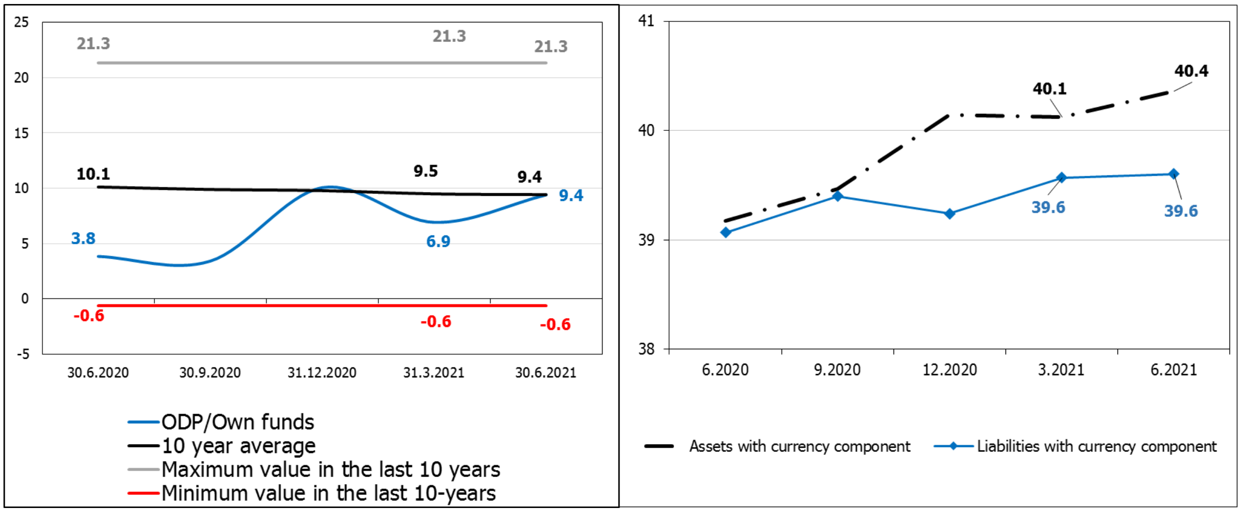
Source: National Bank, based on data submitted by banks.

As a result of these developments, the share of assets with currency component in the banks' total assets increased (by 0.3 percentage points), while the share of liabilities with currency component in total liabilities remained unchanged.

---

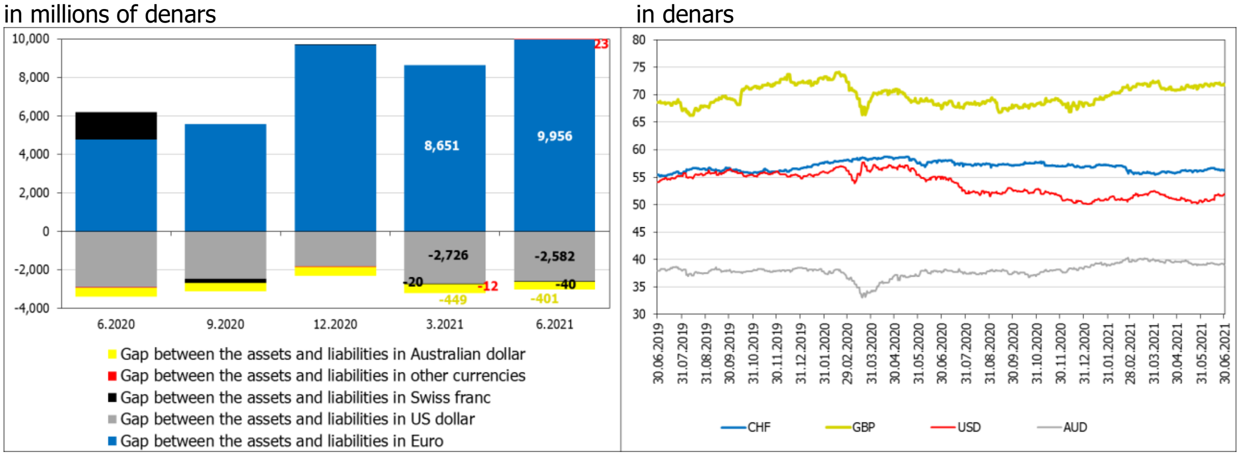
[21] The gap between assets and liabilities with currency component represents the difference between the balance sheet assets and liabilities with currency component, while the open currency position, besides the gap between balance sheet assets and liabilities with currency component, includes the gap between off-balance sheet assets and liabilities with currency component.
[22]The growth of assets with currency component was mostly conditioned by the increased investments in government bonds in denars with FX clause, by Denar 3,891 million, and to a lesser extent by the growth of loans with currency component by Denar 2,609 million (of which Denar 1,665 million are denar loans with FX clause, and Denar 944 million are foreign currency loans). Also, the current accounts in foreign currency with the NBRNM decreased by Denar 1,272 million, as opposed to the growth of the reserve requirement in foreign currency with the NBRNS by Denar 586 million).
[23] On the liabilities side, the current accounts in foreign currency of natural persons increased by Denar 2,548 million and the current accounts of private non-financial companies in foreign currency increased by Denar 1,447 million, as well as the deposits of non-financial corporations in foreign currency by Denar 1,553 million. On the other hand, the foreign currency loans decreased by Denar 1,626 million.

Chart 23
Ten year average and minimum and maximum of of the OCP/own funds ratio (left) and share of the assets and liabilities with currency component * in the total banks' assets (right)
in %



Source: National Bank, based on data submitted by banks.
*Within the assets, claims are shown on a net basis i.e. adjusted for the impairment. The analysis does not include DBNM AD Skopje.

Chart 24
Dynamics and structure of the gap between assets and liabilities with currency component, by currency (left) and movement of the denar against the US dollar, Swiss franc, British pound and Australian dollar (right)
in millions of denars
in denars



Source: National Bank, based on data submitted by banks.

Analyzed by currency, the increase in the gap between assets and liabilities with currency component is mostly due to the widening of the positive gap between assets and liabilities in the most common currency (in euros), while the contribution of other currencies is much lower.[24]. Hence, the exposure of the banking system to currency risk

[24]The negative gap between assets and liabilities in both US dollars and Australian dollars decreased by Denar 145 million and Denar 49 million, respectively, while the gap between assets and liabilities in other currencies increased by Denar 34 million, and from negative turned into a positive one. Only, the negative gap between assets and liabilities in Swiss francs had a negative impact on the widening of the gap between assets and liabilities with currency component, and it increased by Denar 19 million.

is limited due to the implemented strategy for maintaining a stable nominal exchange rate of the denar against the euro. The movements of the value of other currencies do not have a significant impact on the risks arising from the operations of the domestic banking system, due to their low share in the banks' balance sheets.

Table 1
Currency structure of assets and liabilities with currency component
in %

Currency	31.3.2021		30.6.2021	
	Assets	Liabilities	Assets	Liabilities
Euro	90.1	88.5	90.1	88.5
US dollar	6.5	7.8	6.6	7.9
Swiss franc	1.3	1.3	1.3	1.4
Australian Dollar	0.7	0.9	0.6	0.8
British pound	0.5	0.6	0.5	0.6
Other	0.9	0.9	0.9	0.9
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Bank, based on data submitted by banks.

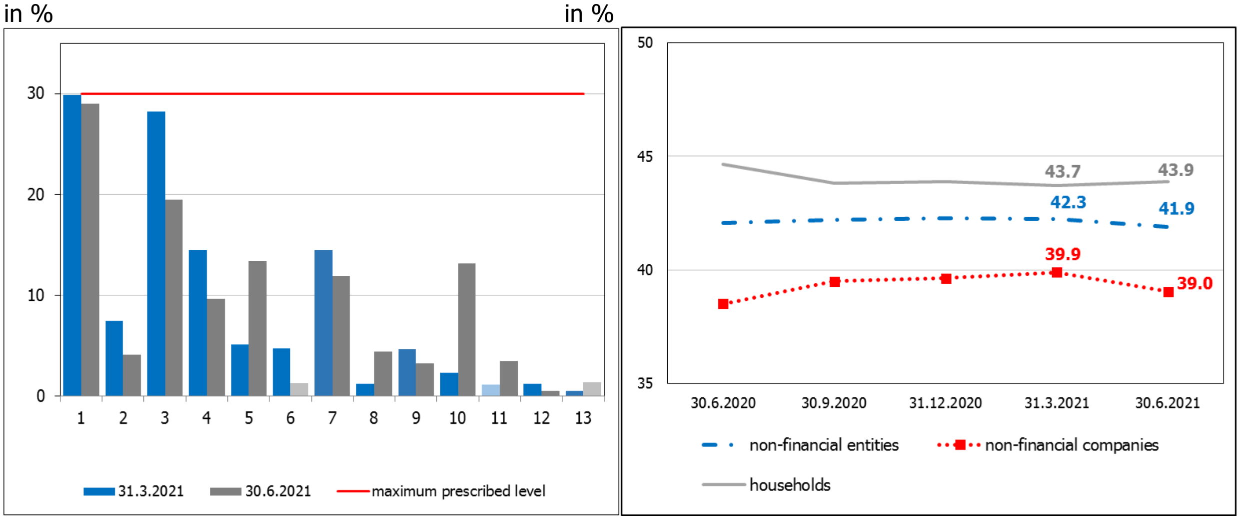
Table 2
Distribution of banks by share of open currency position, by currency and the aggregate currency position in own funds

Items	Number of banks										
	Open currency position by currency / own funds										Aggregate currency position / own funds
	Euro		US Dollar		Swiss franc		Australian Dollar		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	
under 5%	4	3	9	4	6	6	7	2	9	4	7
from 5% to 10%	1										1
from 10% to 20%	4										4
from 20% to 30%	1										1
over 30%											

Source: National Bank, based on data submitted by banks.

Given the fact that more than 99% of loans with currency component are denominated in euros or are in denars with a Euroclause, the probability of materialization of indirect currency risk is also low. At the end of the second quarter of 2021, the share of currency component loans in total loans to the non-financial sector decreased by 0.4 percentage points, mainly due to the reduced share of currency component loans with non-financial companies. In contrast, for households, the share of loans with currency component in total loans increased by 0.2 percentage points.

Chart 25
Aggregate currency position to own funds ratio, by bank (left) and loans with FX component to total loans ratio (right)



Source: National Bank, based on data submitted by banks.
* Columns with lighter shades, refer to the banks that have a short foreign currency position, but shown in absolute value.

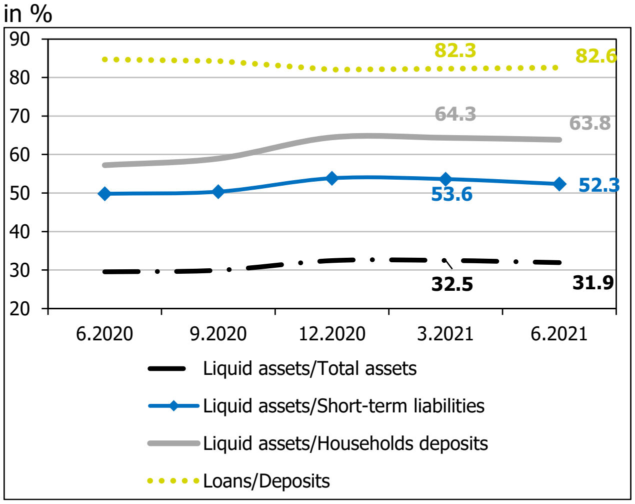
As of 30 June 2021, all banks were in line with the prescribed limit of 30% for the aggregate currency position to own funds ratio. Eleven banks had a long foreign currency position, as opposed to two banks that recorded a short foreign currency position. The highest aggregate foreign currency position was long and amounted to 29.0% in relation to the bank's own funds, and the lowest, which was also a long foreign currency position, was 0.5%, in relation to the bank's own funds.

3. Liquidity risk

In the second quarter of 2021, amid stabilization of the third wave of the pandemic and further quarterly growth of non-financial entities' deposits, the liquid assets of the banking system increased, both on a quarterly and annual basis. According to the liquid assets' components, quarterly growth was registered with the banks' placements in domestic long-term government securities, while other financial instruments that constitute liquid assets mainly declined. Thereby, the indicators for liquidity monitoring and evaluation remained on a stable and satisfactory level. From the aspect of the currency, this quarter, the liquid assets in denars fully conditioned the growth of the total liquid assets, which resulted in improvement in the denar liquidity indicators, given simultaneous moderate deterioration of the foreign currency liquidity indicators. The results of the stress tests indicate satisfactory resilience of the banking system to the assumed extreme, individual and combined, liquidity outflows.

Chart 26 Liquidity indicators of the banking system

in %



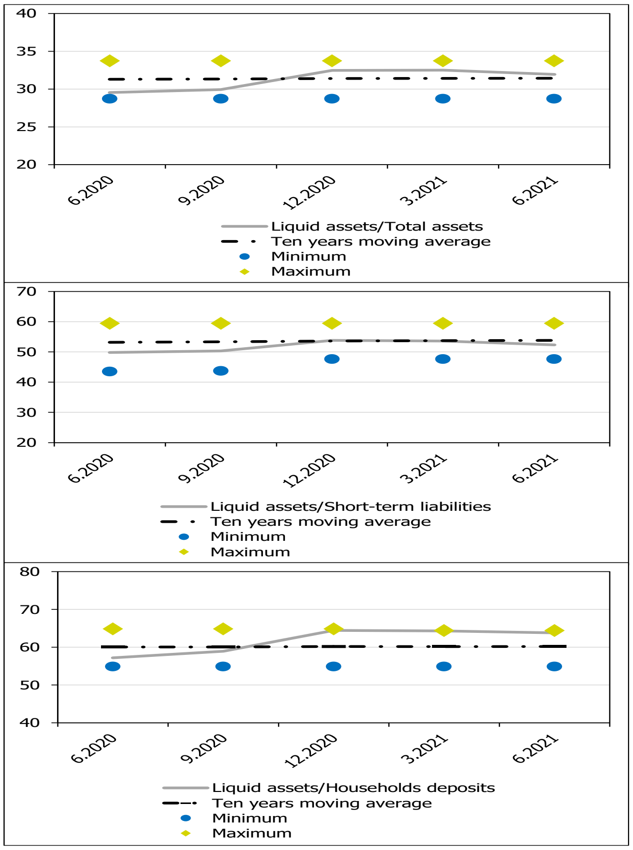
Source: National Bank, based on data submitted by banks.
Note: The calculation of liquidity ratios of the banking system does not include resident interbank assets and liabilities.

3.1. Liquidity indicators

In the first quarter of 2021, in conditions of further growth of the liquid assets of the Macedonian banking system, the liquidity indicators remained stable and on satisfactory level. Namely, the proper liquidity risk management of banks is confirmed by the relatively stable share of liquid assets in the total bank assets (which was almost unchanged at the level of one third) and the coverage of short-term liabilities and household deposits with liquid assets, which also remained stable (over 50% and 60%[25], respectively) The loan-to-deposit ratio at the level of the banking system is stable and hovers around 80%, which additionally points to acceptable frames of liquidity risk the banks are exposed to and their stable liquidity management.

In the second quarter of 2021, **the liquidity indicators, by the currency features of the liquid assets and liabilities, showed divergent movements.** Namely, in conditions of increased denar liquidity[26]

Chart 27
Liquid assets / total assets (top), liquid assets / current liabilities (middle) and liquid assets / household deposits (bottom)
in %



Source: National Bank, based on data submitted by banks.

(which in full determined the quarterly growth of the total liquid assets), the denar liquidity indicators improved. In contrast, the foreign exchange liquidity indicators decreased moderately compared to the previous quarter. At the same time, denar liquidity indicators remain at a higher level compared to the foreign currency liquidity indicators, due to the higher structural share of liquid assets in denars in the banks' total liquid assets. The risks arising from the lower foreign currency liquidity indicators are mitigated by high denar liquidity and the possibility to provide foreign currency liquid assets, if necessary

In accordance with the regulatory changes, i.e. the implementation of the new methodology for liquidity risk management[27], the banks are obliged to determine, monitor and maintain a **liquidity coverage ratio** that is defined as the ratio between high quality liquid assets[28] of the bank and assumed net cash outflow[29], which would be registered under stress in the next 30 days. Pursuant to the regulations, the liquidity coverage ratio should not be below 100%[30]. As of 30

[25] Analyzed by bank, as of 30 June 2021, the share of liquid in total assets ranges between 15.4% and 52.8%, with a median of 24.9% (June 2020: between 15% and 44.6%). The coverage of short-term liabilities with liquid assets ranges between 30% and 70%, with a median of 48.5% (June 2020: between 31.2% and 86.6%), the coverage of household deposits with liquid assets between 35.9% and 88.4% with a median of 61.4% (June 2020: between 22.2% and 101.1%). The Development Bank of North Macedonia AD Skopje is excluded from this analysis.

[26] Claims and liabilities with FX clause are considered as denar claims and liabilities, since their cash flow is in denars. Thereby, this growth mostly results from the quarterly increase in the banks' placements in government bonds (in denars with FX clause by Denar 3,891 million, or by 75.4%, and in denars by Denar 2,294 million, or by 8.5%).

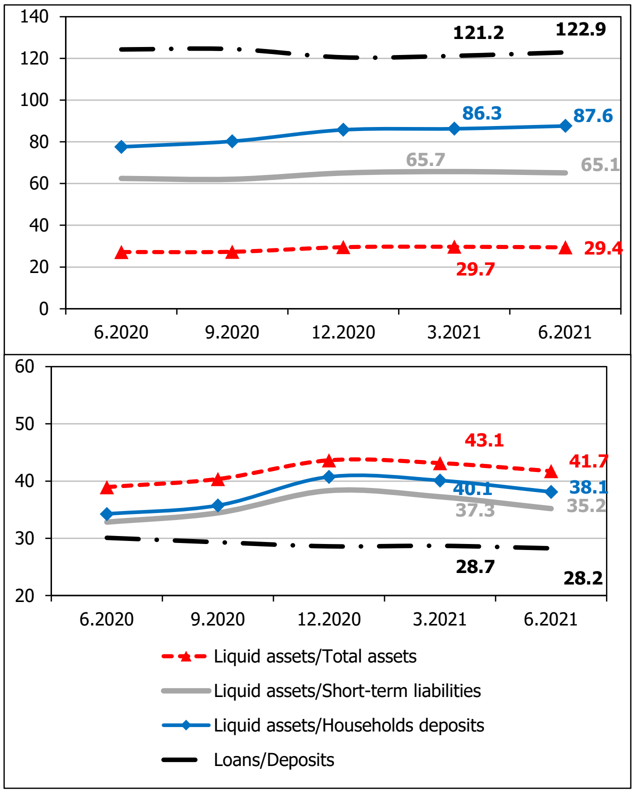
[27] In May 2020, a new Decision on the methodology for liquidity risk management was adopted, which further harmonized the domestic regulations with the Basel standards (Basel III) and the provisions of the relevant EU regulations in this area and the introduction of the liquidity standard - Liquidity Coverage Ratio (LCR). The new decision has been in force since the beginning of 2021.

[28] High quality liquid assets of banks is a regulatory category, defined in the Decision on the methodology for liquidity risk management. High quality liquid assets include positions that the bank can immediately convert into cash at any time during the next 30 days and thus be able to use them to cover net cash outflows under conditions of presumptive stress over a period of 30 days.

[29] Net cash outflow is the difference between cash inflows, which according to the contracts are expected to occur in the next 30 days and cash outflows, which, under stress, will occur in the next 30 days.

[30] In addition to on a cumulative basis, banks are required to determine and monitor a liquidity coverage ratio for each currency that is significant to the bank (each currency whose share of the bank's total balance sheet liabilities is at least 5%). Thereby, the requirement to maintain the minimum level of 100% refers only to the total liquidity coverage ratio and not to the liquidity coverage ratios by each significant currency.

Chart 28
Banking system liquidity ratios according to currency structure, denars (top) and FX (bottom)
in %



Source: National Bank, based on data submitted by banks.

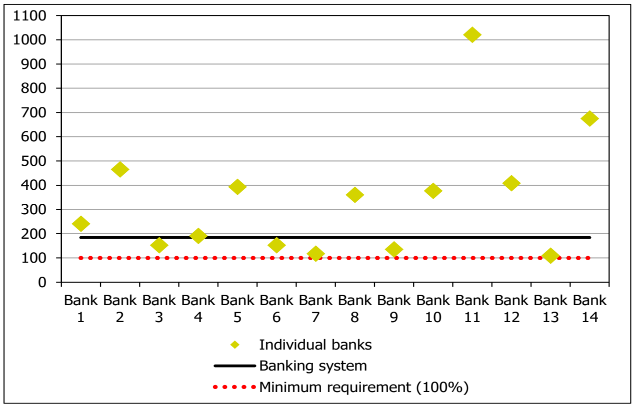
June 2021, the liquidity coverage ratio of the banking system is 184.2%, which confirms the satisfactory volume of liquidity at disposal of the Macedonian banking system. Liquidity coverage ratios of all individual banks exceed the prescribed minimum level and range from 108.7% to 1020.5% (with a median of 300.3%). The introduction of this ratio enabled further harmonization of the domestic regulations with both the Basel standards and the relevant EU regulations. This regulation further strengthens the resilience of banks and the banking system as a whole. Namely, the main goal of this liquidity standard is for the banks to maintain a sufficient level of liquid assets, which would enable them to perform their operations in conditions of stress for a period of 30 days. The regulation allows, in case of stress, to reduce the liquidity coverage ratio below the prescribed minimum.

3.2. Dynamics and composition of liquid assets

At the end of the second quarter of 2021, liquid assets[31] of the banking system amounted to Denar 189,110 million and registered a quarterly growth of 0.1% (or by Denar 130 million). Compared to the same period in 2020, solid growth of 16.3% (or by Denar 26,539 million) was registered. From the aspect of individual financial instruments that

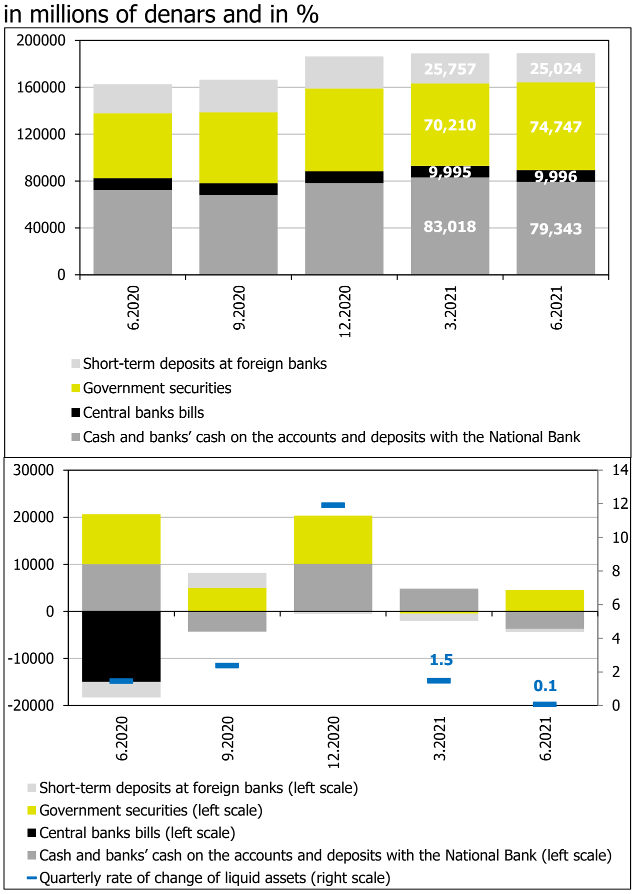
[31] The liquid assets encompass: 1) assets and claims on the National Bank, which include cash, assets on the accounts of banks with the National Bank, deposit facility with the National Bank and CB bills; 2) short-term deposits with foreign banks, including the assets of the banks on their correspondent accounts abroad and 3) the carrying amount of the investments in securities issued by central governments, i.e. government securities issued by the Republic of North Macedonia and issued by foreign countries. For the purposes of analyzing the liquidity, assets and liabilities in denars with foreign exchange clause are considered denar assets and liabilities.

Chart 29
Liquidity coverage ratio, as of 30 June 2021
in %



Source: National Bank, based on data submitted by banks.

Chart 30
Liquid assets, structure (top) and growth (bottom)
in millions of denars and in %



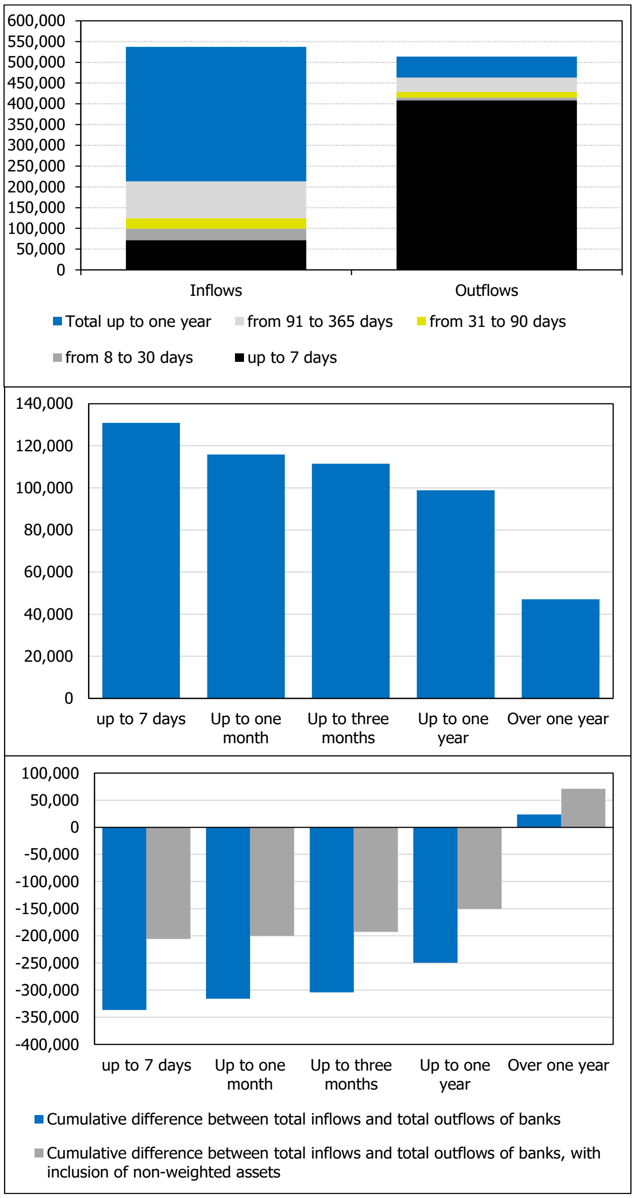
Source: National Bank, based on data submitted by banks.

make up the liquid assets, the quarterly increase of the banks' liquidity, to a large extent results from the higher placements of the banks in government bonds (by Denar 6,138 million, or by 11.2%). In contrast, with the exception of treasury bills placements, which remained almost the same, the other financial instruments that make up liquid assets declined on a quarterly basis. The largest quarterly decrease of Denar 3,612 million, or by 8.7%, was registered at the banks' assets on the denar account with the National Bank. At the same time, banks' placements in treasury bills (by Denar 1,597 million or 10.7%), banks' foreign currency assets (by Denar 927 million, or 13.9%) and placements in short-term deposits with foreign banks also dropped significantly (by Denar 733 million, or by 2.8%).

3.3. Maturity structure of the contracted inflows and outflows assets and liabilities of the banks

As of 30 June 2021, the agreed inflows of banks distributed in the period over one year and the agreed outflows of banks distributed in the period up to seven days prevail in the maturity structure of banks' inflows and outflows. The largest difference (gap) between the banks' inflows and outflows is registered in the time periods up to seven days (negative gap) and over one year (positive gap), which results from the inclusion of the banks' sight outflows and without a maturity in the maturity segment up to seven days, i.e. due to claims based on loans and advances included in maturity segments over one year (long-term loans at the level of the banking system cover more than 80% of total loans to non-financial entities). If in the

Chart 31
Maturity structure of inflows and outflows based on balance sheet assets and liabilities (top), cumulative amount of non-weighted assets (middle) and cumulative difference between total inflows and total outflows of banks, with and without inclusion of non-weighted assets (bottom), as of 30 June 2021
in millions of denars



Source: National Bank, based on data submitted by banks.

calculation of the cumulative gaps between the cash inflows and outflows, the cumulative amount of the so-called unweighted bank assets[32], then these gaps are slightly smaller, but still significant (cumulative gap up to 7 days, including the amount of unweighted bank assets is 34.1% of the assets of the banking system, while the cumulative gap up to 1 year accounts for 25% of total assets).

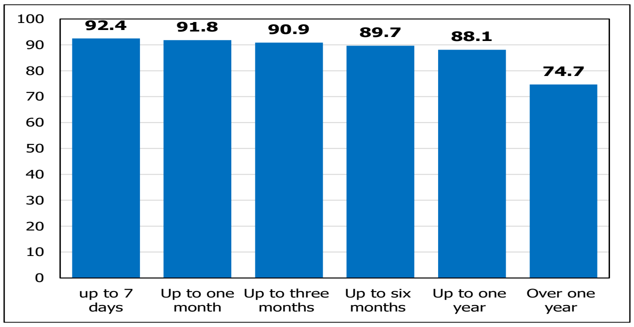
In the second quarter of 2021, as well, the banks expect deposits stability maintenance, since they are the main source of financing. Namely, at the end of the second quarter of 2021, according to the depositors' behavior, the banks expect that in the next 12 months, 88.1% of contractual outflows for deposit-based liabilities will not be realized by the depositors. The high percentage of stable deposits remained even in conditions when there are still risks and uncertainty related to the COVID-19 pandemic.

3.4. Stress-simulations for liquidity shocks

As of 30 June 2021, the results of the conducted stress simulations for liquidity shocks show that the banking system is characterized by a stable liquidity position, i.e. it has sufficient liquid assets to respond appropriately to the individual simulated cash outflows. The resilience of the Macedonian banking system to liquidity shocks is confirmed by the results of all individual simulations of liquidity

[32] Unweighted assets are the assets that banks have at their disposal and that they can use as collateral to obtain additional sources of funds, such as the assets that banks can trade or the assets that the central bank accepts as collateral instruments in conducting monetary operations (unweighted assets include cash, funds on account with the Central Bank, placements in equity instruments that meet the criteria to be part of the highly liquid assets of banks). According to the new regulations, unweighted assets are not included in the determination of net cash outflows (more precisely as cash inflows) if they are included in high-quality liquid assets.

Chart 32
Expected stability of deposits, by the residual period until maturity, as of 30 June 2021
in %



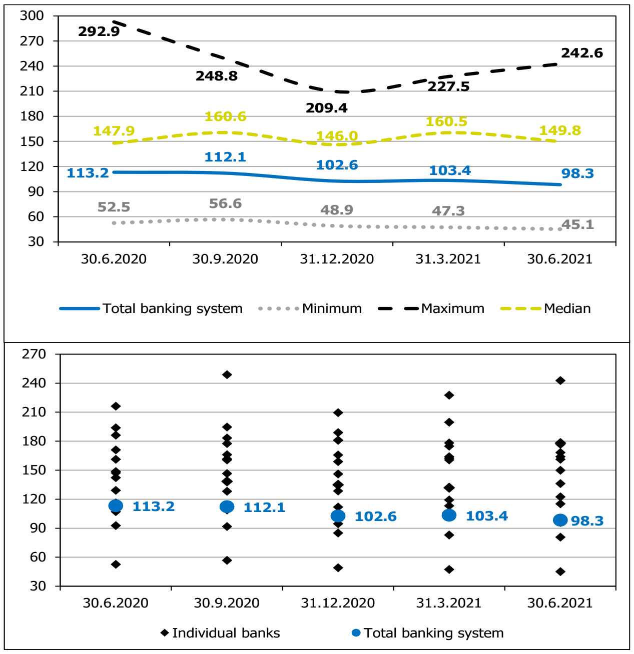
Source: National Bank, based on data submitted by banks.

shocks, with the liquid assets being almost fully used (98.3% on 30 June 2021) only in case of significantly extreme simulation of liquidity shock, which covers combined outflows[33] of funds from banks on several bases. The improvement in the results in case of this simulation is entirely due to the changes in the scope of input data in the simulation, in accordance with the regulatory changes, i.e. implementation of the new methodology for liquidity risk management.[34]. Considering the extremity of assumption, for the purpose of this simulation, the usual coverage of liquid assets is extended with other financial instruments[35] owned by banks, for which it is estimated that banks will quickly and easily collect or turn into cash. In such a case, in combination with the assumed shocks, 86.6% of the available liquid assets (according to the expanded definition) would be needed to cover the liquid outflows, so the banking system would still have a certain amount of liquid assets at its disposal.

At individual simulations of liquidity shocks, the high level of liquidity which Macedonian banks have at their disposal provides settlement also of all assumed, individual, extreme liquidity outflows. The sharpest drop in liquid assets occurs in case of an outflow of

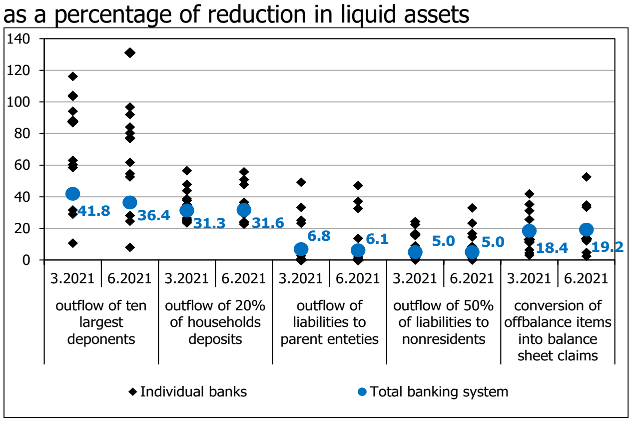
[33] The simulation assumes outflow of: deposits of the ten largest depositors, 20% of household deposits, liabilities to parent entities (liabilities on subordinated instruments and hybrid capital instruments are excluded from the simulation as, according to the regulations for calculating capital adequacy, their repayment is regulated), 50% of the liabilities to non-residents (excluding liabilities to non-resident parent entities of banks which are already covered by one of the previous simulations) and conversion of certain off-balance sheet liabilities of the banks (uncovered letters of credit, irrevocable credit lines and unused limits based on credit cards and approved overdrafts on transaction accounts) into balance sheet claims. The simulations of liquidity shocks exclude the Development Bank of North Macedonia AD Skopje.
[34] With the new regulations, the monitoring of the concentration of sources of funds is performed in accordance with the data for the largest 10 depositors, while according to the previous regulations, data about the largest 20 depositors were available.
[35] Financial instruments that comprise liquid assets, also include the following financial instruments: assets in the guarantee fund in KIBS, long-term deposits in foreign banks, money market instruments issued by foreign non-government issuers, loans with contractual residual maturity of up to 30 days and the effect of reducing the reserve requirement for foreign currency liabilities of banks, which is allocated in foreign currency due to the simulated outflow of households' foreign currency deposits.

Chart 33
Reduction of liquid assets after the simulation for combined liquidity shocks (after all shocks), total banking system (up) and by bank (down)
in %



Source: National Bank, based on data submitted by banks.

Chart 34
Contribution of shocks to the decline in liquid assets in the simulation of a combined liquidity shock, by bank
as a percentage of reduction in liquid assets



Source: National Bank, based on data submitted by banks.

the deposits of the ten largest depositors[36], but the importance of this simulation to individual banks is different, given the differences in the degree of deposits concentration. On the contrary, simulated materialization of reputation risk and loss of confidence of the population in the banks represented by an outflow of 20% of household deposits shows a significantly greater similarity in the results for individual banks, thereby confirming the importance of deposits to the financing of the banks' activities. In case of an assumed conversion of certain off-balance sheet liabilities of the banks into on-balance sheet claims[37], the banks would spend just below 20% of their liquid assets, which although is less compared to the simulations of outflow of deposits[38], yet this assumed reduction in liquid assets can be considered significant. The small share of liabilities to non-residents, as well as to parent entities in the structure of the total sources of funding for banks, causes moderate impact of the shocks associated with them on the overall result of this simulation.

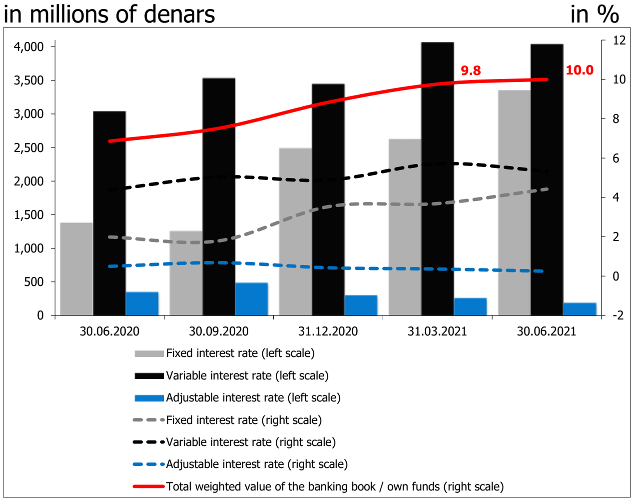
[36] In case of assumed individual liquidity shock which includes full outflow of deposits of the ten largest depositors, in accordance with the changes in the regulations for liquidity risk management, the input data in the simulation refers to the deposits of the ten largest depositors, instead of the current coverage of the twenty largest depositors.
[37] Outflow is assumed as a result of the migration of some off-balance sheet liabilities of the banks (uncovered letters of credit, irrevocable credit lines and unused limits based on credit cards and approved overdrafts on transaction accounts) into on-balance sheet claims.
[38] During a simulation of outflow of the deposits of the 10 largest depositors, the liquid assets of the banking system are reduced by 36.4%, while in case of assumed outflow of 20% of the household deposits, liquid assets are reduced by 31.6%.

4. Interest rate risk

In the second quarter of 2021, the exposure of the banking system to the interest rate risk in the banking book increased compared to 31.3.2021, due to the expansion of the positive gap in the positions with fixed interest rate. The total (non-weighted) gap is positive, which on an aggregate basis exposes the banking system to the risk of reducing interest rates. On the other hand, although the share of loans with adjustable and variable interest rates in total loans is reducing, it is still significant and exposes banks to indirect credit risk from the exposure of their clients to the risk of increasing interest rates.

Chart 35 Total weighted assets of the banking book*, by interest rate type, in absolute amount (left scale) and relative to own funds (right scale)

in millions of denars in %

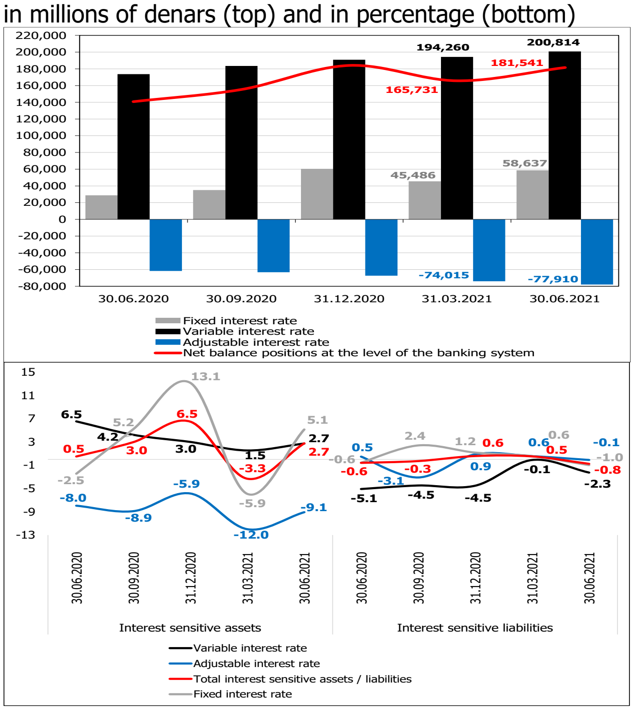


Source: National Bank, based on data submitted by banks.

*The total weighted value of the banking book denotes the potential loss of the economic value of this portfolio, amid assumed unfavorable interest shock of ±2 percentage points.

The total weighted assets of the banking book registered a quarterly increase of Denar 628 million or by 9%. This, despite the growth of own funds (of 6.4%), increased the ratio between the weighted value of the banking book and the own funds by 0.2 percentage points, to the level of 10%. At the same time, the level of this ratio, used to measure the exposure of the banking system to the interest rate risk in the banking book, is equal to the maximum value for the last 10 years (10%). Analyzing by bank, this ratio ranges from 0.5% to 17.4%, and is below the level of the prescribed 20.0%[39]. Analyzing the type of interest rate, the quarterly growth of the total weighted value of the banking book entirely results from the increase in the weighted value of the portfolio with fixed interest rate (Denar 725 million or 27.6%), amid expansion of the gap with this type of interest rate. Such changes in the structure of the gap with fixed interest rates mostly result from the increase in placements in government bonds and loans, amid simultaneous quarterly decrease in liabilities on the basis of loans with fixed interest rates. In contrast, the weighted values of the portfolio with adjustable interest rate and of the portfolio with variable interest rate decreased (by Denar 69 million, or by 27% and by Denar 27 million, or by 0.7%, respectively)[40].

Chart 36
Interest-sensitive assets and liabilities by type of interest rate, gap (up) and quarterly growth (down)
in millions of denars (top) and in percentage (bottom)



Source: National Bank, based on data submitted by banks.

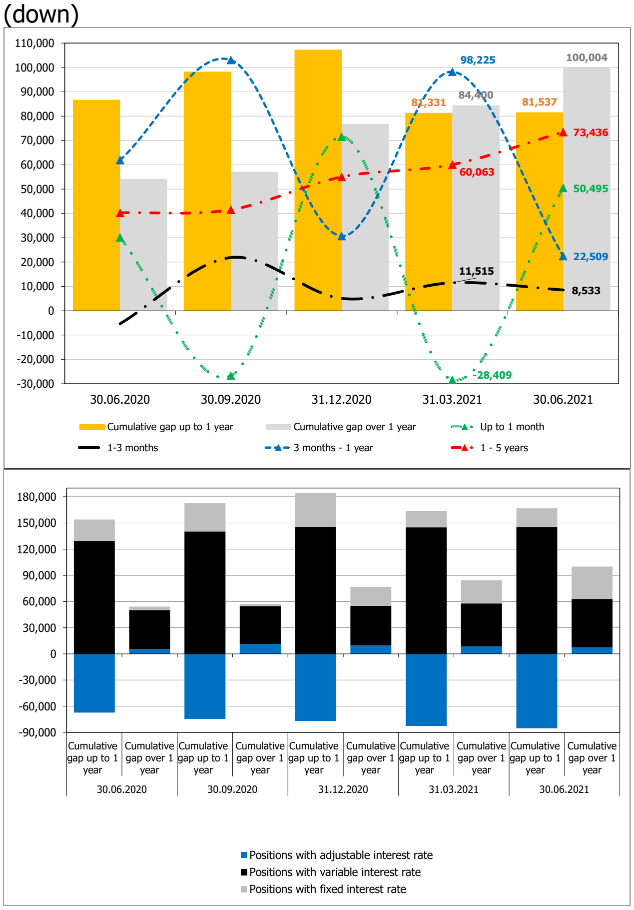
Chart 37
Net weighted position / own funds*
in %

Source: National Bank, based on data submitted by banks.
* Data on interest rate risk in the banking book are available as of 2010.

Both the weighted and the total (non-weighted) gap between the interest-sensitive assets and liabilities registered a quarterly growth (of 9.5% or Denar 15,810 million). This is mostly due to the expansion of the **positive gap between the positions with fixed interest rate** (mainly due to the growth of placements in government bonds and loans, amid simultaneous fall in liabilities on the basis of loans with this type of interest rate). The growth of placements in loans with variable interest rate versus the decline in placements in loans with adjustable interest rate had the greatest impact on the **expansion of the positive gap between assets and liabilities with variable interest rate** (by Denar 6,554 million, or by 3.4%) **and of the negative gap between assets and liabilities with adjustable interest rate** (by Denar 3,895 million, or by 5.3%).

[39] According to the regulation, when total weighted value of the banking book to own funds ratio exceeds 20%, the bank is required to propose measures to reduce this ratio, and the National Bank may also require allocation of appropriate amount of capital for covering the interest rate risk in the banking book.
[40] The reduction of the weighted value of these two portfolios, amid simultaneous expansion of the gaps with this type of interest rates, results from the rearranging of the positions, from the blocks with a longer to the blocks with a shorter time period until the next reassessment of the interest rates.

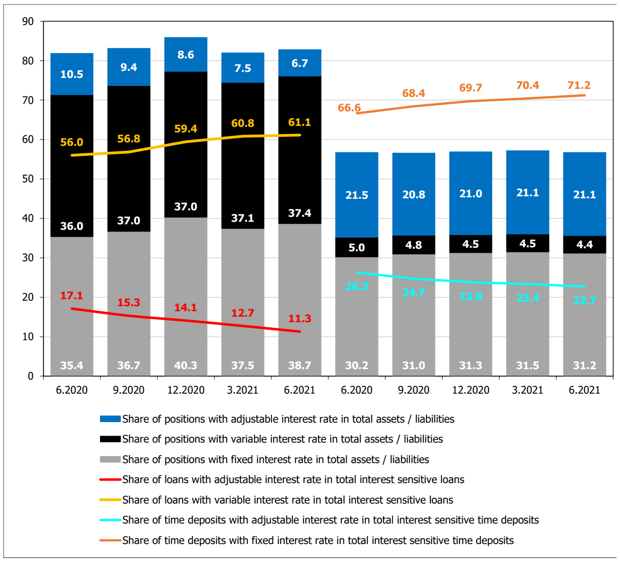
Chart 38 Asset-liability gap, by period until next interest rate revaluation (left) and gap structure by interest rate type (right)
in millions of denars (up) and in millions of denars (down)



Source: National Bank, based on data submitted by banks.

Analyzing the time period until the next reassessment of the level of interest rates, the expansion of the total gap between the interest-sensitive assets and liabilities is entirely due to the expansion of the gap over 1 year, by Denar 15,604 million, while the gap up to 1 year registered an insignificant expansion of Denar 207 million. The expansion of the gap between the interest-sensitive active and passive positions over 1 year is mostly concentrated in the blocks from 4 to 5 years (mainly due to the increase in placements in debt securities with fixed interest rate) and in the blocks from 1 to 2 years (mainly due to the increase in placements in loans with variable interest rate). Although the gap between the interest-sensitive assets and liabilities up to 1 year registers a minimal expansion, one should mention that there is a shift of the gap, from the blocks from 3 to 6 months, to the blocks up to 1 month (mostly conditioned by the movements of placements in loans with variable interest rate).

Chart 39 Assets and liabilities structure, by type of interest rate
in %



Source: National Bank, based on data submitted by banks.

The indirect exposure to the risk of increasing interest rates which results from the presence of loans with adjustable and variable interest rates remains significant, although the share of these loans in total loans registers certain reduction. As of 30.6.2021, the share of these loans in the total loans equals 72.4% (which is less by 1.2 percentage points compared to 31.3.2021), whereby 61.1% of the total loans have variable interest rate, while 11.3% are with adjustable interest rate, which exposes banks to indirect credit risk from the exposure of their clients to the risk of increasing interest rates. The trend of reduction of the share of the positions with adjustable interest rate in interest-sensitive assets continued also in the second quarter of 2021, while, on the liabilities side, this trend mainly stagnated. For more details about the structure of interest-sensitive items of the banks see Annexes to this Report.

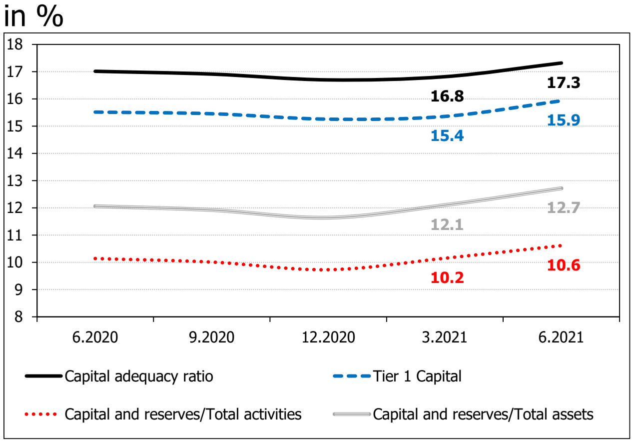
5. Insolvency risk

At the end of the second quarter of 2021, the solvency and capitalization ratios of the banking system recorded an improvement. The capital adequacy ratio increased by 0.5 percentage points on a quarterly basis, reaching a level of 17.3%. This growth results from the faster increase in the own funds, compared to the increase in the activities of the banking system. More than half of the newly acquired own funds were accumulated as "free" capital, above the required level for covering the risks, the capital buffers and the capital supplements, whereby its share in the own funds reached a level of 11.3%. Almost half (42.5%) of the own funds of the banking system belong to the capital supplements determined according to the supervisory assessment and to the capital buffers which are especially important in conditions of crisis episodes, when they can be used to deal with challenges of different nature and intensity. The conducted stress-testing shows satisfactory resilience of the banking system to the simulated shocks.

5.1. Solvency and capitalization ratios of the banking system

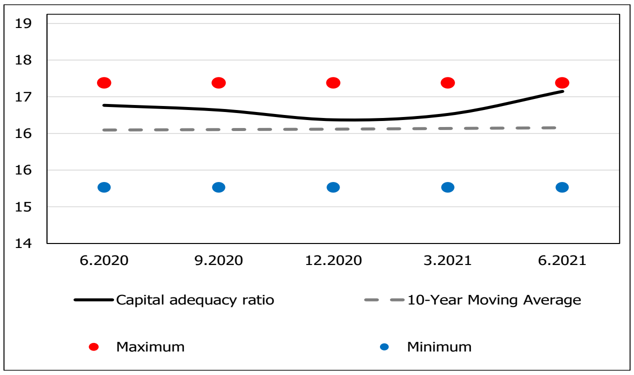
At the end of the second quarter of 2021, all solvency and capitalization ratios of the banking system recorded an improvement. This is due to the twice higher relative rise in the banks' own funds, relative to the growth of the risk weighted assets. Thus, the own funds, the Tier I capital and the capital and reserves registered a quarterly growth of 6.4%, 7.1% and 6.9%, respectively, while the increase in the on-balance sheet assets, the risk weighted assets and the total (balance sheet and off-balance sheet) activities of banks was more moderate and amounted to 1.8%, 3.3% and 2.3%, respectively. The upward change in capital and reserves in the second quarter of 2021 is largely a result of the reinvestment of profits from 2020 and the recapitalization in one large and one medium-size bank. Namely, in accordance with the recommendations of the International Monetary Fund and the European Central Bank, and in order to act preventively to further increase the resilience of the banking system and maintain stability, in conditions of uncertainty and prolonged effects of the crisis of the COVID-19 pandemic, in February 2021, the National Bank Council adopted a measure for a temporary limitation on the distribution and payment of a dividend

Chart 40
Solvency ratios
in %



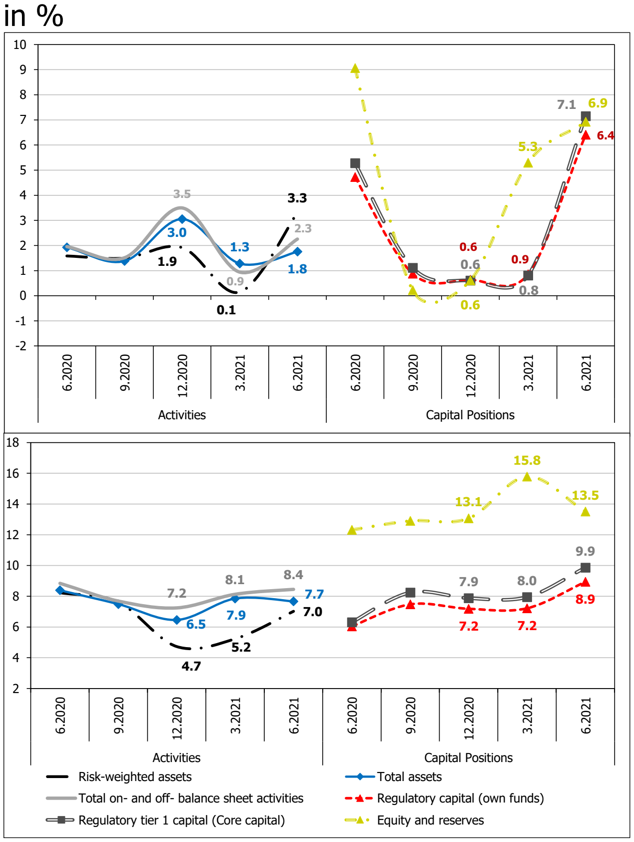
Source: National Bank, based on data submitted by banks.

Chart 41
Movement of the capital adequacy ratio of the banking system
in %



Source: National Bank, based on data submitted by banks.

Chart 42
Growth of components of solvency ratios, quarterly (up) and annual (down)
in %



Source: National Bank, based on data submitted by banks.

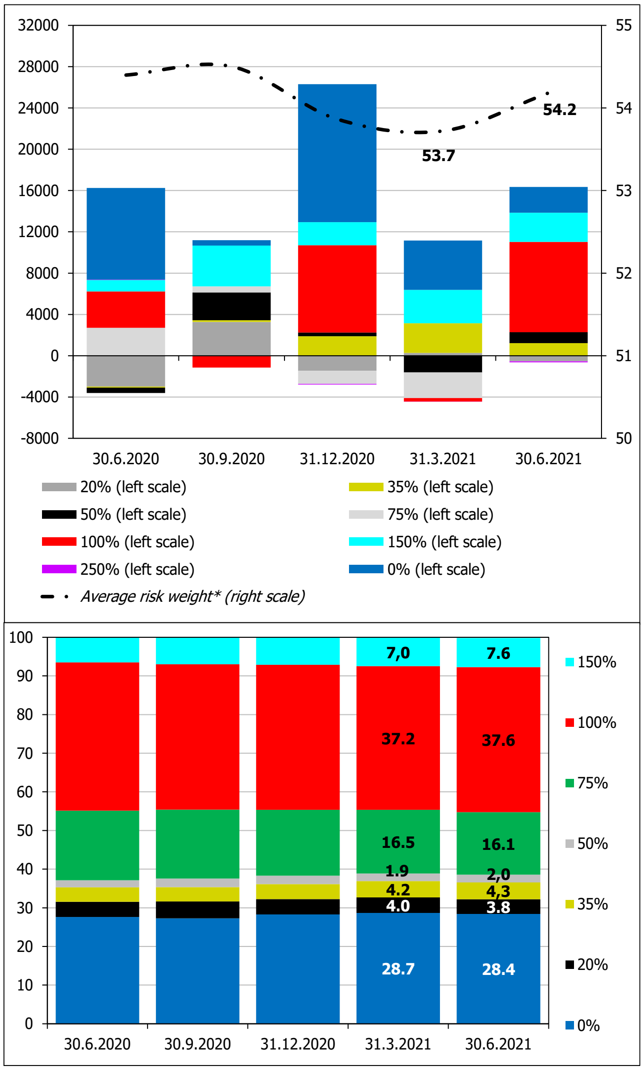
to the banks' shareholders. However, on the basis of the improved circumstances in the global and in the domestic environment, together with the favorable levels of the indicators for the banking system for the first half of the year and the results of the stress testing[41], in August 2021, the National Bank Council repealed the Decision on temporary limitation on the distribution and payment of a dividend. Thus, by the end of 2021, in some of the banks one can expect a deferred distribution and payment of the dividend.

As of 30.6.2021, the capital adequacy ratio at a level of the banking system equals 17.3% and is higher by 0.5 percentage points compared to 31.3.2021, i.e. by 0.8 percentage points compared to the calculated ten-year average of this ratio (which is 16.5%). Moreover, the capital adequacy ratio came closer to its maximum value. Analyzed by individual bank, the capital adequacy ratio at the end of the first half of 2021 is higher than the regulatorily prescribed minimum ratio (of 8%). Growth of 0.5 and 0.6 percentage points was also registered in the Tier I capital ratio and the Common Equity Tier I capital ratio, respectively, which contributed at the end of the first half-year for these indicators to reach a level of 15.9% (significantly above the prescribed regulatory minimum, of 6% and 4.5%, respectively). The semiannual leverage ratio (as a ratio between the Tier I capital and the total on-balance and off-balance sheet exposure) is 10.6% (10.5% and 10.8% for the first and the second half of 2020, respectively).

In conditions of uncertainty about the further course of the health crisis of COVID-19, in the second quarter of 2021, banks provided rapid credit growth, which also increased the total risk-weighted assets, by 3.3% or by Denar 14,026 million. Most (or 85%) of this

[41] More details about this stress-test are published in the Financial Stability Report for the Republic of North Macedonia in 2020, page 80.

Chart 43
Quarterly changes (up) and structure (down) in the total on-balance sheet and off-balance sheet exposure, by risk weights
in millions of denars in %



Source: National Bank, based on data submitted by banks.

growth accounts for the increase in the credit risk weighted assets[42] by Denar 11,868 million, or by 3.1%. High growth of almost one third (or by Denar 2,177 million) is registered in the currency risk weighted assets, which results from the increase in the aggregate currency position (deepening of the gap between the assets and liabilities with currency component)[43]. In contrast, a modest decrease in the second quarter was registered in the operational risk weighted assets and the other risk-weighted assets. Such movements in the credit risk weighted assets contributed to **increasing the average level of bank risks** (as measured by the credit risk-weighted assets to total on-balance and off-balance sheet exposure ratio) by 0.5 percentage points, to the level of 54.2%.

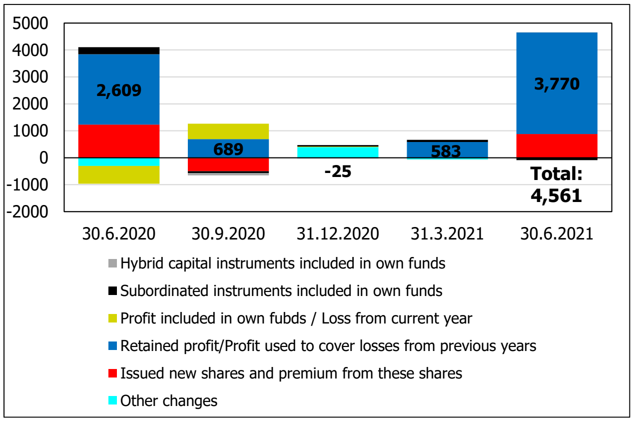
5.2. Quality of own funds of the banking system

Maintaining profits and recapitalizations in the second quarter of 2021 contributed to further strengthening of the highest-quality component of the own funds of the banking system (Common Equity Tier I capital), which represents 91.6% of the total own funds of the banks (90.9% as of 31 March 2021). The Additional Tier I capital accounts for only 0.4%[44] of the own funds of the banking system, while the Tier II capital makes up 8% (in the first quarter 8.7%). For more details about the level of own funds by group of banks see annexes to this report.

In conditions of a moderate growth of the activities of the banking

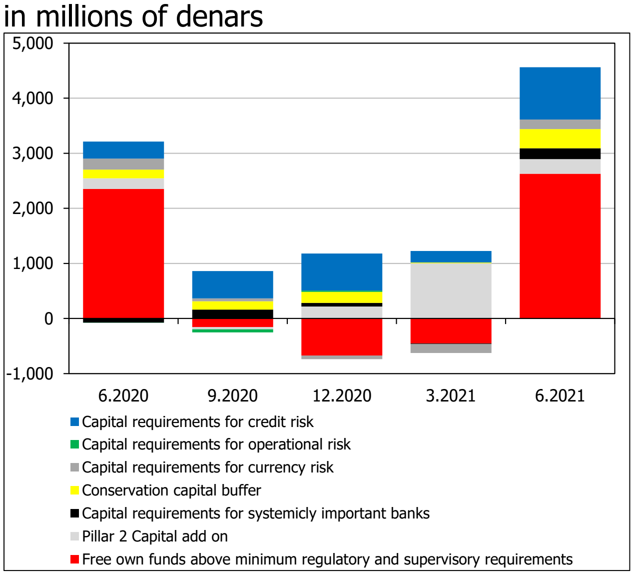
[42] Moreover, half of the growth of the total on-balance and off-balance sheet exposure to credit risk of the banking system is due to the banks' activities that are included with risk weight of 100%, which grew by solid Denar 8,755 million (or by 3.3%), mostly as a result of the increase in the claims on non-financial companies. Increase (of Denar 2,828 million) is also registered in the positions with risk weight of 150%, mostly as a result of the increase in the portfolio of consumer loans. Also, quarterly growth is registered in the positions with risk weight of 0% (of Denar 2,490 million), mostly as a result of the quarterly increase in the investments in government bonds. Quarterly growth, of Denar 1,213 million, is also registered in the positions with risk weight of 35%, as a result of the increase in the claims covered by residential properties.
[43] More details in the section concerning the currency risk of this Report.
[44] Only one medium-size bank has issued instruments of the Additional Tier I capital.

Chart 44
Structure of the quarterly growth of own funds
in millions of denars



Source: National Bank, based on data submitted by banks.

Chart 45
Quarterly growth of own funds, by the requirement for covering risks and for maintaining the required capital buffers
in millions of denars

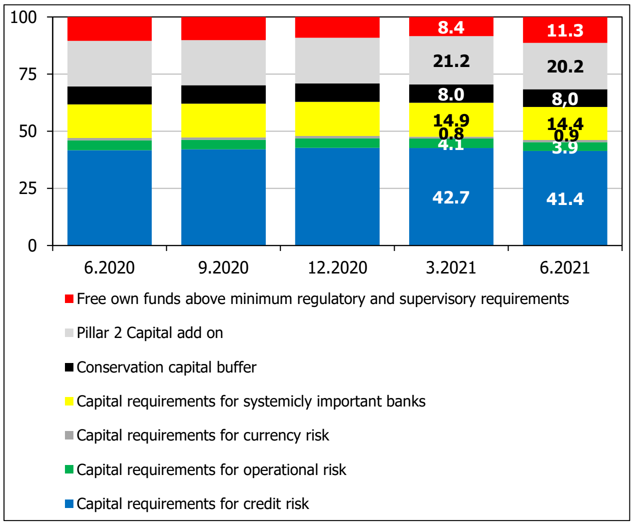


Source: National Bank, based on data submitted by banks.

system, most of the quarterly increase in the own funds was accumulated as "free" capital above the required level for covering the individual risks and for maintaining the capital buffers[45] and capital supplements according to the supervisory assessment. Thus, the own funds above the required level for covering all these requirements registered a more substantial quarterly increase (by Denar 2,626 million, or by 44%) and as of 30.6.2020 they accounted for 11.3% of the total own funds of the banking system. Also, the other capital requirements, the capital supplement determined by the supervisory assessment and the capital buffer for systemically important banks[46], increased[47]. The growth of activities led to a higher amount of the regulatory capital for covering the individual risks (credit, currency and operational risk by Denar 1,123 million, or by 3.3%. However, the more substantial increase in the own funds than the quarterly increase in the capital requirement for covering risks reduced the share of the capital requirement for covering risks in the total own funds, from 47.6% as of 31.3.2021, to 46.2% as of 30.6.2021.

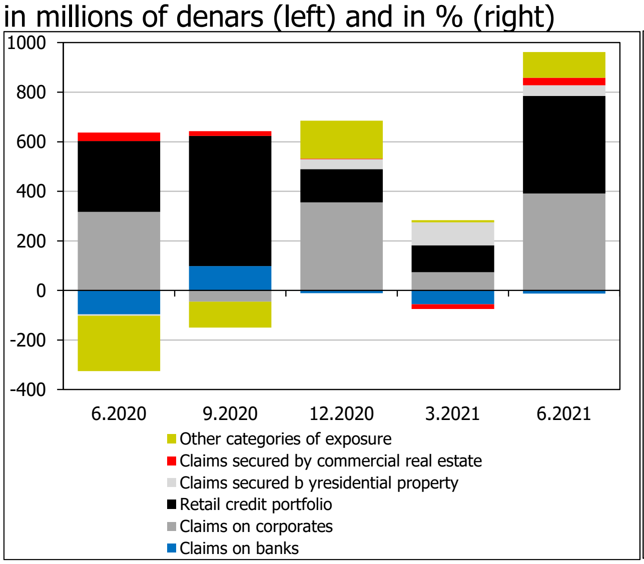
[45] From the four capital buffers specified by the Banking Law, for the time being all banks are required to meet the capital conservation buffer, while the seven banks identified as systemically important banks are also required to meet an appropriate rate of capital buffer for systemically important banks.
[46] According to the data as of 31 December 2020, seven banks have been identified as systemically important banks (as well as according to the previous calculation), which should meet the determined rate of capital buffer for systemically important bank, not later than 31 March 2022. For more information visit: https://www.nbrm.mk/content/Regulativa/Lista_identifikuvani_sistemski_znacajni_banki_2020.pdf .
[47] The growth was Denar 266 million, or 1.8% and Denar 196 million, or 3.4%, respectively.

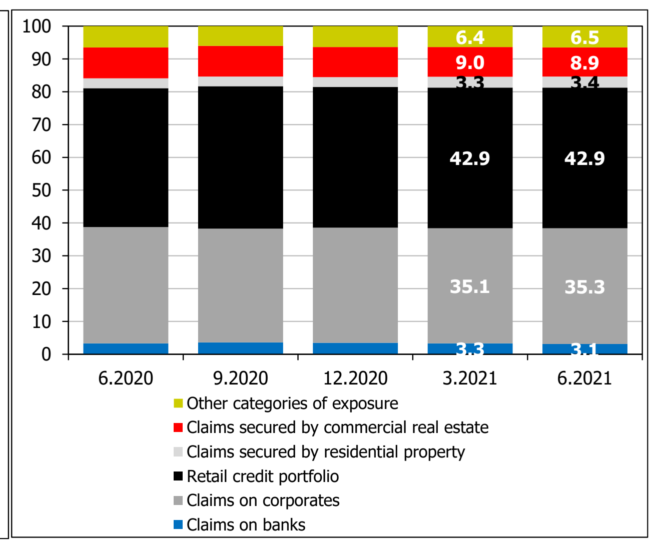
Chart 46
Structure of own funds, by the requirement for covering risks and for maintaining the required capital buffers
in %



Source: National Bank, based on data submitted by banks.

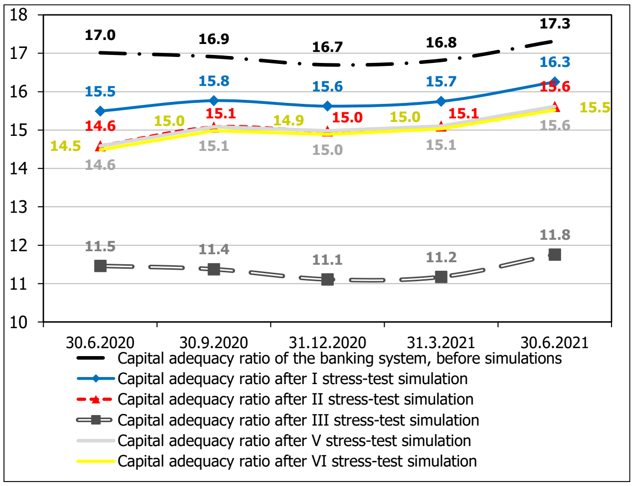
Chart 47
Quarterly growth rates (left) and structure (right) of capital requirements for credit risk, by exposure category
in millions of denars (left) and in % (right)





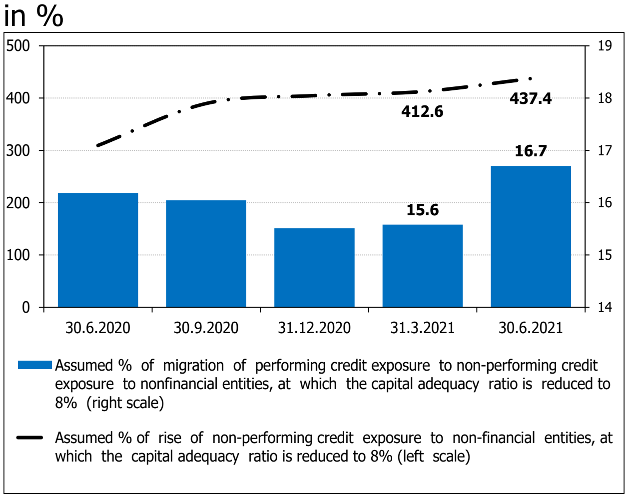
Source: National Bank, based on data submitted by banks.

Chart 48
Results of stress-test simulations
in %



Source: National Bank, based on data submitted by banks[48].

Chart 49
Necessary deterioration of the quality of credit exposure to cause a decline in the capital adequacy of the banking system to 8%
in %



Source: National Bank, based on data submitted by banks.

5.3. Stress-testing of the banking system resilience to hypothetical shocks

The banking system shows a satisfactory level of resilience to the conducted regular simulated shocks, which assume extreme materialization of the credit risk (isolated, or in combination with materialization of the currency and/or the interest rate risk). The results of the conducted regular stress-testing of the resilience of the banking system and of the individual banks to simulated shocks are better compared with 31.3.2021. Namely, in all simulations, conducted as of 30.6.2021, the capital adequacy ratio is at a higher level than 31.3.2021, mainly due to the higher capital adequacy ratio. The capital adequacy of the banking system does not go below 8%, in none of the simulations.

Hypothetical shocks on the part of the credit risk are most important for the solvency of the banking system. The results of the reverse stress test show that it takes growth of non-performing loan exposure of 437.4%, i.e. migration of 16.7% from regular to non-performing loan exposure for the capital adequacy of the banking system to drop to 8%. These are rather extreme and less likely simulations, especially in the short term, given that in the second quarter of 2021, the non-performing credit exposure to non-financial entities registered a quarterly growth of 3.6%. On the other hand, in the second quarter of 2021, only 0.5% of the regular credit exposure to the non-financial sector received a non-performing status. The stable solvency of the banking sector enables

[48] Stress testing includes the following simulations:
I: Increasing the non-performing credit exposure to non-financial entities by 50%;
II: Increasing the non-performing credit exposure to non-financial entities by 80%;
III: Migration of 10% of the regular to non-performing loan exposure to non-financial entities;
IV: Increase in non-performing loan exposure to non-financial entities by 80% and increase in interest rates from 1 to 5 percentage points;
V: Increase in non-performing loan exposure to non-financial entities by 80%, depreciation of the Denar exchange rate by 30% and increase in interest rates from 1 to 5 percentage points;

adequate resilience and readiness of banks to deal with the risks, which is especially important in conditions of increased uncertainty due to the pandemic and the prospects for its ending.

III. Major balance sheet changes and profitability of the banking system

1. Bank activities

The accelerated immunization, in the second quarter of 2021, accompanied by stabilization of the epidemiological situation and relaxation of the restrictive measures had a positive influence on the domestic economic activity. In such conditions, the balance sheet of the banking system registered a rapid quarterly growth.

On the side of the sources of funds, the deposits growth continued, which was also supported by the funds paid to companies and to households by the Government, in order to improve their liquidity and better deal with the consequences of the health crisis. Observed by sector, the deposits growth is largely a result of the increase in corporate deposits, amid growth of household deposits. The changed currency preferences of depositors in the peak of the pandemic were also maintained in the second quarter of 2021, reflected by the higher absolute and percentage growth of foreign currency, compared to denar deposits. Observing maturity, demand deposits entirely contributed to the growth of total deposits, amid quarterly fall in term deposits. The higher level of capital and reserves, due to the reinvestment of profits from 2020 and the recapitalizations in two banks, also significantly contributed to the quarterly growth of the sources of funds.

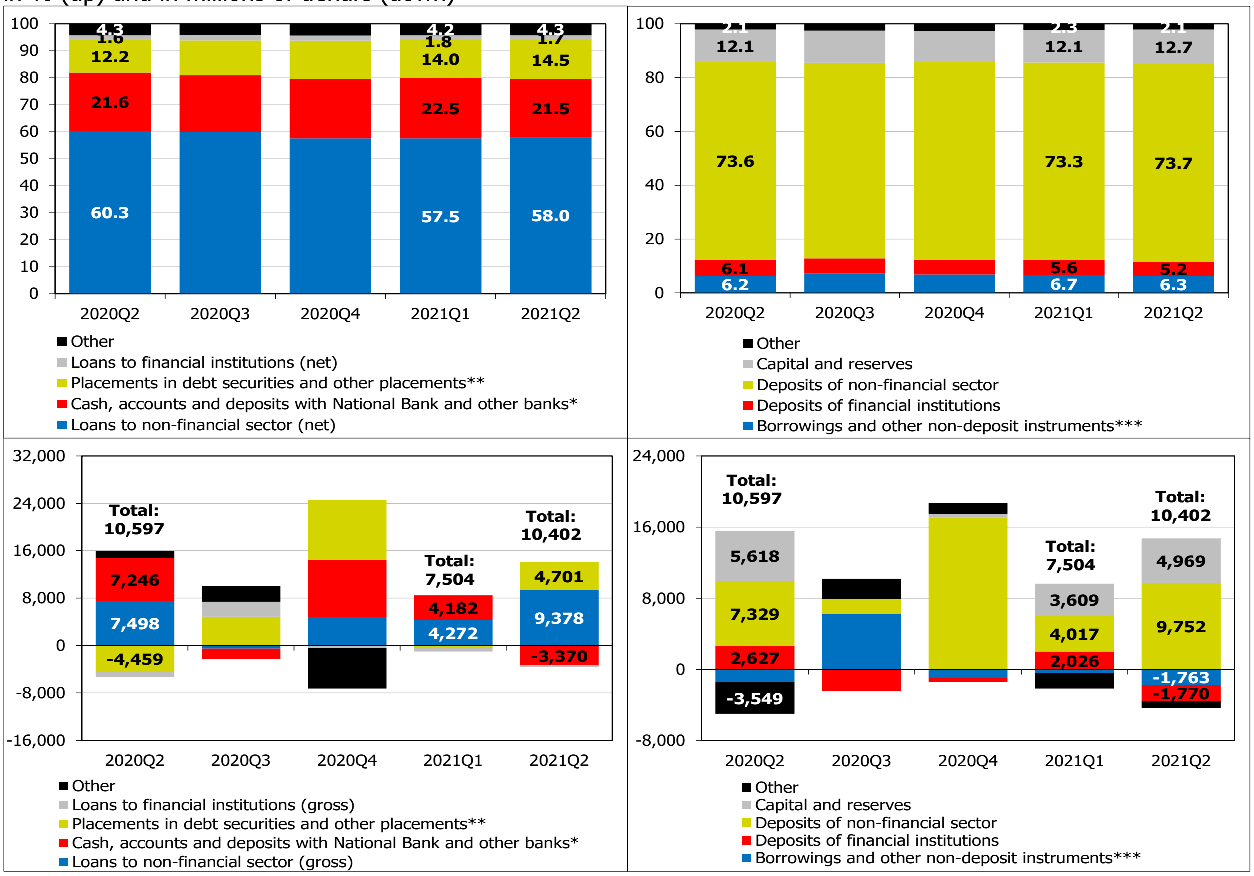
In the second quarter of 2021, banks provided a rapid credit growth, which is usual for this time of year. Most of the quarterly growth of loans was aimed at households, predominantly in denars or in denars with foreign exchange clause, although the lending to the corporate sector also registered a solid increase. Besides the lending activity with the non-financial sector, in the second quarter of 2021, a more significant growth was also registered in the placements in government bonds.

The further dynamics of the vaccination in the coming period, as well as the threat of a new pandemic wave caused by the new types of the coronavirus will largely affect the recovery dynamics of the economic activity and consequently, the activities of the banking system.

Chart 50

Structure of the assets (up left) and liabilities (up right) and structure of the quarterly changes of the assets (down left) and liabilities (down right) of the banking system

in % (up) and in millions of denars (down)



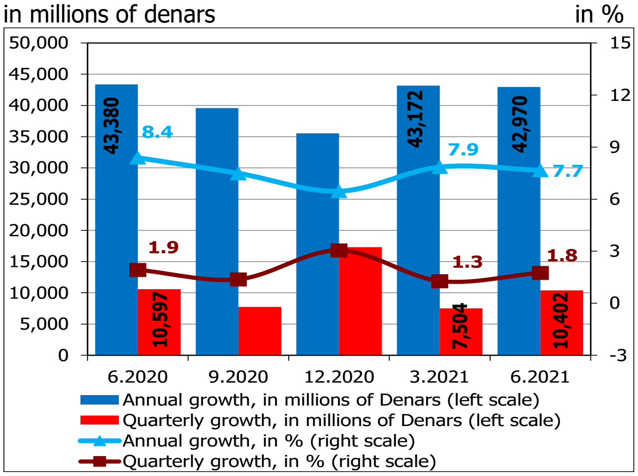
Source: National Bank, based on data submitted by banks.

Note: * Cash, accounts and deposits with the NBRNM and other banks also include the assets in the guarantee fund of KIBS, as well as the reserve requirement in foreign currency; **Other investment includes placements in equities and investment in subsidiaries, associates and joint ventures; ***Other issued non-deposit instruments include issued subordinated and hybrid capital instruments.

Chart 51

Assets of the banking system

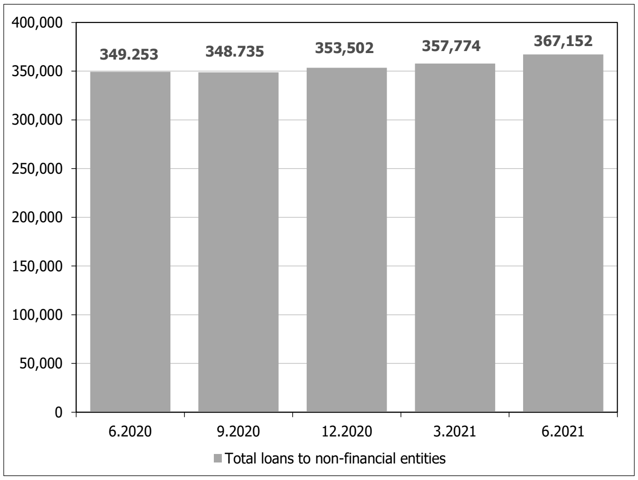
in millions of denars / in %



Source: National Bank, based on data submitted by banks.

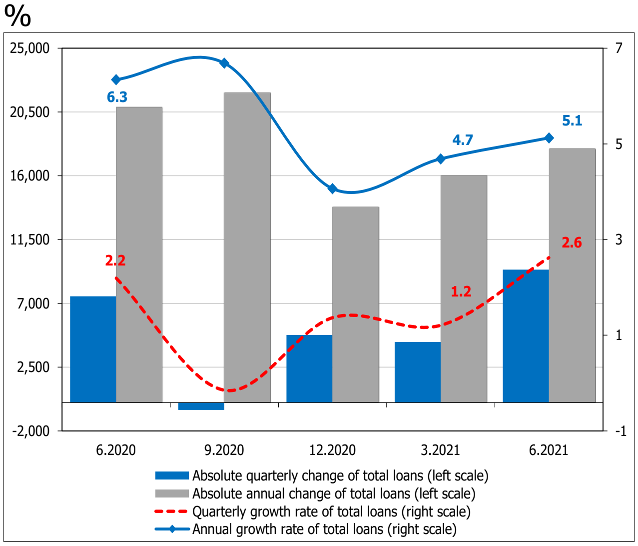
In the second quarter of 2021, the balance sheet of the banking system registered faster growth (which amounted to Denar 10,402 million or 1.8%), compared to the previous quarter (Denar 7,504 million or by 1.3%). In the assets, the highest quarterly growth was recorded in loans to non-financial entities and placements in government bonds, while on the liabilities side, the increase in deposits of non-financial entities and in capital and reserves entirely contributed to the growth of the sources of funds.

Chart 52
Amount of loans to non-financial entities
in millions of denars



Source: National Bank, based on data submitted by banks.

Chart 53
Growth of loans to non-financial entities
in millions of denars in %



Source: National Bank, based on data submitted by banks.

1.1. Loans to non-financial entities[49]

In the second quarter of 2021, the lending to the non-financial sector increased by Denar 9,378 million, or by 2.6%, which is an acceleration compared to the previous quarter (1.2%). Acceleration is registered in the two segments of the credit portfolio, amid increased demand for loans. Moreover, almost all banks50 registered increased lending activity compared to the previous quarter, and only four larger banks contributed with around 75% in the total quarterly growth of loans to non-financial entities.

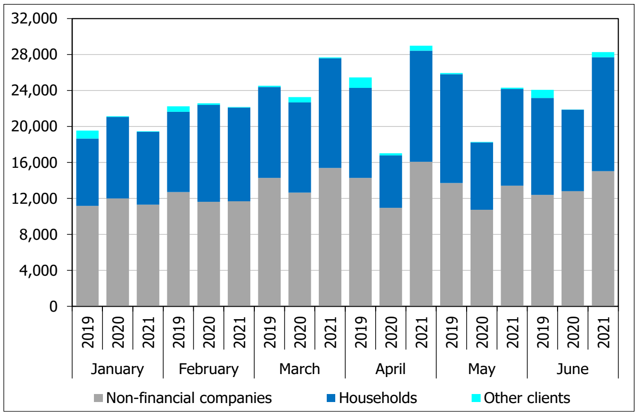
The volume of new loans in the second quarter of 2021 increased. Thus, the amount of new loans in the second quarter of 2021 increased51 by 17.7%, compared to the previous quarter, with an almost identical increase in new loans to households (of 16.5%) and businesses (15.9%).

The quarterly growth of credit activity largely resulted from lending to households, but a significant contribution was also made by loans to non-financial companies.

The credit support to companies strengthened in the second quarter of 2021, amid growth of loans to this sector of Denar 3,986 million, or by 2.3% (the growth in the first quarter of 2021 amounted to Denar 1,334 million or 0.8%). On the contrary, the annual growth of corporate loans (excluding the effect of net write-offs) is slower (1.7%) compared to the previous quarter, whereby it is below the 10-year

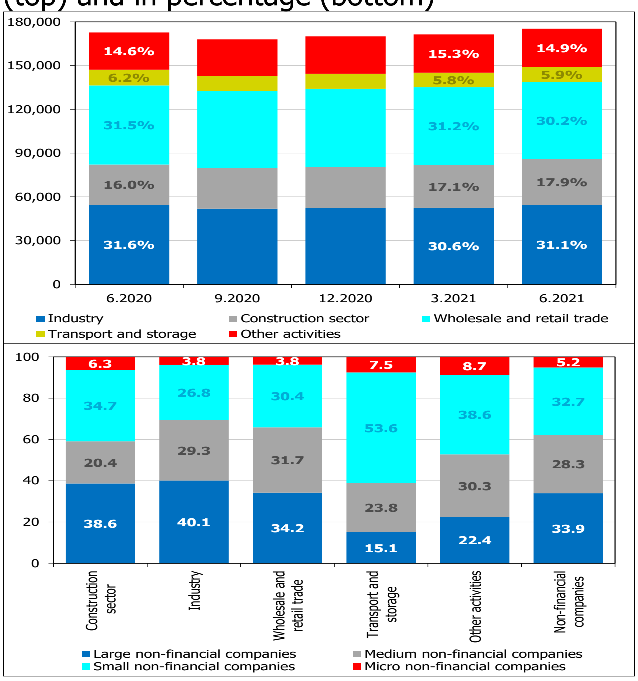
[49] Loans to non-financial entities include loans to resident and non-resident non-financial entities, including loans to private and public non-financial companies, central government, local government, non-profit institutions serving households, sole proprietors and natural persons.
[50] DBNM AD Skopje is not taken into account due to its specific activities, which hardly include direct lending to companies.
[51] Compared to the same quarter of the previous year (when the credit support was weaker under the influence of the crisis), the amount of new loans increased by 42.6%, amid growth of 59.9% and 29.0% in the household and corporate segment, respectively.

Chart 54 New loans by individual sectors
in millions of denars



Source: National Bank, based on data submitted by banks.

Chart 55 Structure of loans to non-financial companies, by individual activities (up) and according to the size of the company (down)
in millions of denars and in percentage in signs (top) and in percentage (bottom)



Source: National Bank's Credit Registry and the National Bank, based on data submitted by banks.

moving average of the annual growth rates of these loans for four quarterly dates (5.2%).

The structure of loans to non-financial companies, according to the economic activity of the clients, is predominated by the loans extended to clients from the trade activity and industry. Analyzing the size of non-financial companies52, as of 30.6.2021, most of the approved corporate loans refer to large and small enterprises, which account for about one third of the total corporate loans. The share of medium-size enterprises is also similar (28.3%).

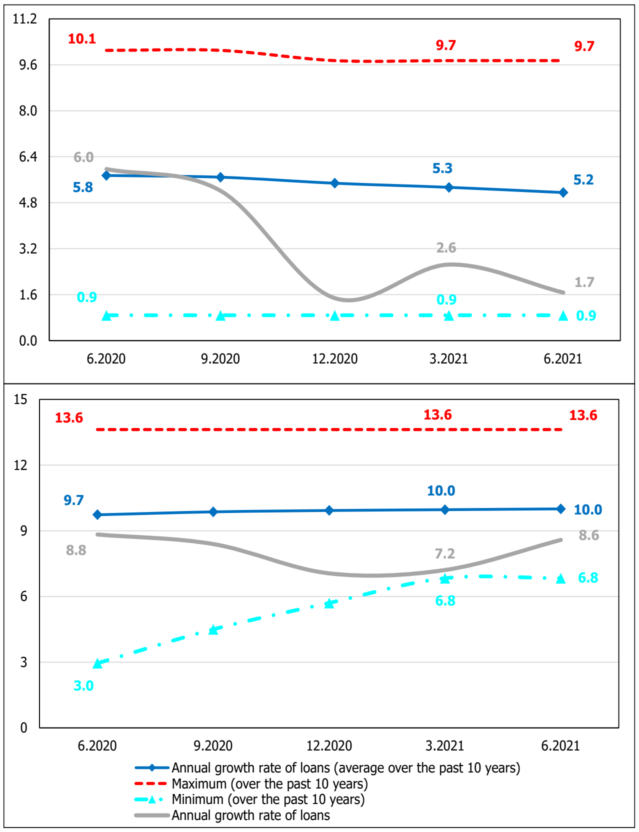
The stronger credit growth in non-financial companies is also accompanied by an increase in the total demand for corporate loans53. At the same time, in the second quarter of 2021, banks point to weaker net tightening of the credit conditions54, compared to the previous quarter. For the third quarter of 2021, banks expect small net tightening of the credit conditions for approving corporate loans, amid further net increase in the credit demand by companies.

In the second quarter of 2021, the quarterly growth rate of household loans accelerated, climbing to the level of 2.9%, or Denar 5,378 million (the growth in the first quarter of 2021 was 1.6% or Denar 2,968 million). The annual growth rate of household loans (excluding the effect of net write-offs) also accelerated and amounted to 8.6% (7.2% as of 31.3.2021), thus moving away from the minimum value of the

---

[52] The criteria for classification of entities by size (into large, medium, small and micro) are defined in Article 470 of the Law on Trade Companies.
[53] Source: Bank Lending Survey in the second quarter of 2021.
[54] Analyzed by individual terms of lending to companies, banks point to net easing in interest rates on loans, as opposed to the net tightening in the collateral requirements and non-interest revenues. The other credit conditions (size and maturity of loans) are assessed mainly as unchanged credit conditions by banks.

Chart 56 Ten-year moving average of annual growth rates of loans to non-financial corporations (up) and household loans (down)
in %



Source: National Bank, based on data submitted by banks.
*Note: Excluding the effect of all mandatory write-offs made in the period 1.1.2016 - 30.6.2021. Starting from December 2019, the data also contains collected compulsorily written-off loans.

annual growth of household loans registered in the last 10 years (6.8%), but is still below the level of its 10-year moving average (10.0%).

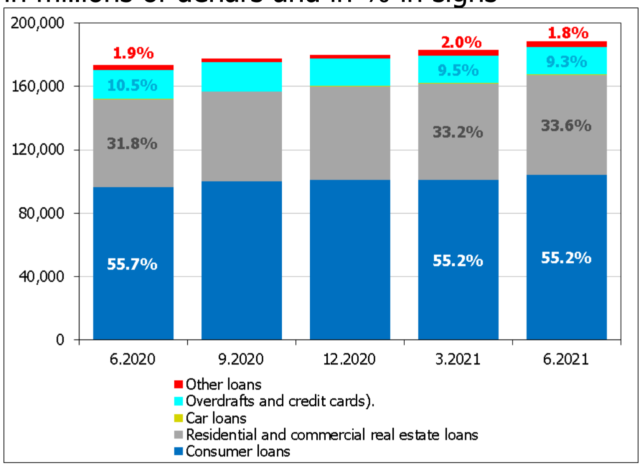
The acceleration in the credit growth of households is mostly a result of the increased demand for loans, amid simultaneously eased credit conditions. Namely, in the second quarter of 2021, banks point to smaller net easing of the credit conditions in household loans55 which is registered in all types of loans. On the demand side, banks point to net increase in the demand for the total household loans, mostly due to the increased interest in housing loans. In the next quarter, banks expect net tightening of the credit conditions, amid further net increase in the demand for loans by households.

Household loans continue to dominate the total loan structure, accounting for 51.6% as of 30.6.2021. By credit product, 64.4% of loans to natural persons are intended for consumption financing (consumer loans, overdrafts and credit cards). Analyzing the credit products, housing loan growth is maintained at a similar level as in the pre-crisis period56, while consumer loans registered far low annual growth compared to the pre-pandemic period. The natural persons utilization of allowed overdraft57 moderately increased.

---

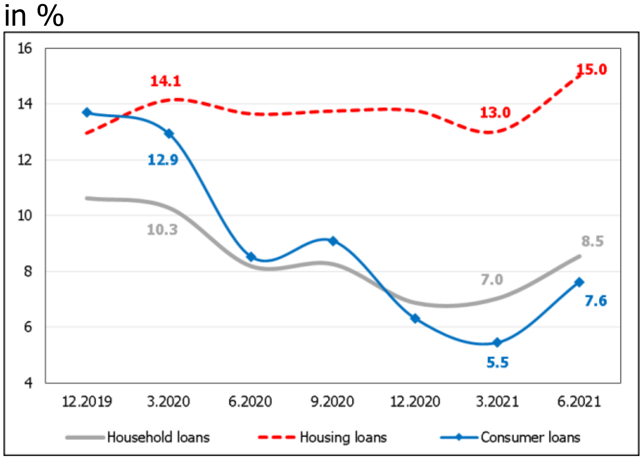
[55] In terms of individual credit conditions, there is net easing in the interest rate on household loans, commissions on housing loans and non-interest income in consumer loans. The credit condition "collateral requirement" registers net tightening in housing loans, as opposed to the net easing in consumer loans. Within the consumer loans, the credit condition "maturity of loans" registered net tightening.
[56] As of 30.6.2021, the annual growth of housing loans was 15.0%, which is relatively similar to the pre-crisis annual growth, i.e. as of 31.3.2020, when it amounted to 14.1%. The annual growth rate of housing loans has averaged about 14.5% in the last seven years. On the other hand, as of 30.6.2021, the annual growth of consumer loans was 7.6%, which is significantly lower compared to the annual growth of 12.9% as of 31.3.2020. Analyzed quarterly, housing and consumer loans increased by 4.3% and 2.9%, respectively.
[57] As of 30.6.2021, the annual growth of overdraft loans was 5.9% (while the off-balance sheet exposure based on this product decreased by 3.8%). These loans increased by 0.6%, on a quarterly basis.

Chart 57
Structure of loans to natural persons, by product
in millions of denars and in % in signs



Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 58
Annual growth of household loans, by product
in %



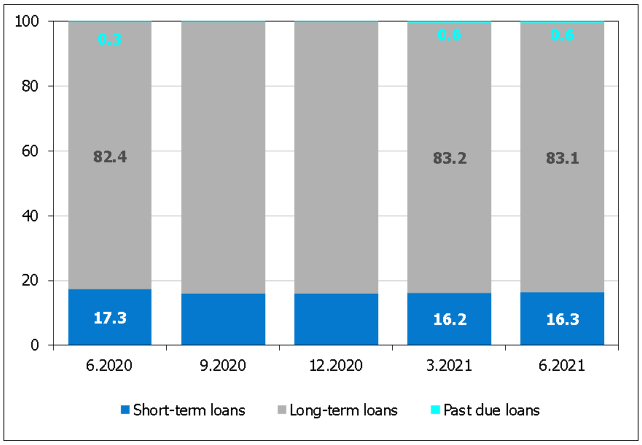
Source: National Bank's Credit Registry, based on data submitted by banks.

In the second quarter of 2021, denar loans58 made the largest contribution (72.0%) to the growth of total loans to non-financial companies, while the contribution of denar loans with foreign exchange clause59 and foreign currency loans60 is significantly smaller (17.7% and 10.3%, respectively). The currency structure of total loans remained almost the same as in the previous quarter, with continued prevalence of denar loans (58.1%).

Credit portfolio maturity continued increasing in the second quarter of 2021, through further growth of long-term lending (by 2.5%, or by Denar 7.056 million), which as of 30.6.2021 made up 83.1% of the structure of total performing61 loans. The growth of long-term loans mostly results from household loans. The increased bank lending partly resulted from the growth of short-term loans (by 3.2%, or by Denar 1,796 million), which almost entirely stems from corporate loans.

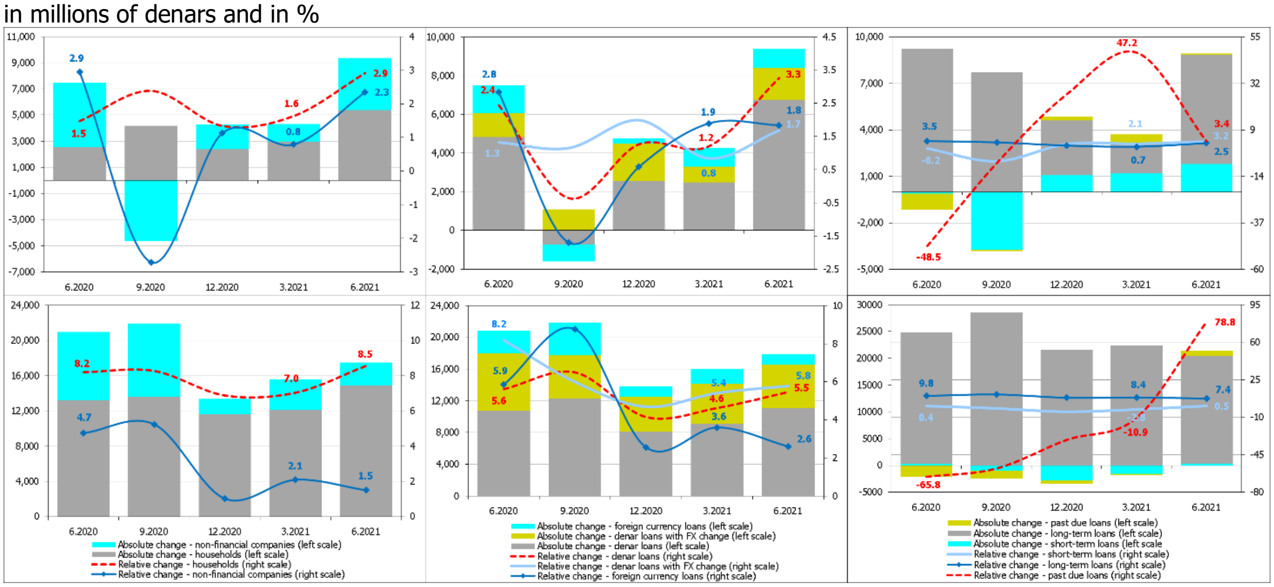
[58] Denar loans increased quarterly by Denar 6.751 million (or 3,3%), largely as a result of corporate loans (growth of Denar 3.868 million, or 3,8%), and to a lesser extent of the increase in household loans (of Denar 2.659 million, or 2,6%).
[59] Denar loans with foreign exchange clause increased quarterly by Denar 1,660 million, or 1.7%, resulting from household loan growth of Denar 2,548 million, or 3.6%, despite the decrease in corporate denar loans with foreign exchange clause (by Denar 815 million, or 3.0%).
[60] Foreign currency loans rose quarterly by Denar 967 million, or 1.8% i.e. corporate loans increased by Denar 934 million (or 2.3%), while the growth of household loans amounted to Denar 171 million (or 1.6%).
[61] The analysis of maturity structure of loans excludes non-performing loans.

Chart 59
Structure of total loans, by sector (up) and currency (middle), and structure of regular loans, by maturity (down)
in %



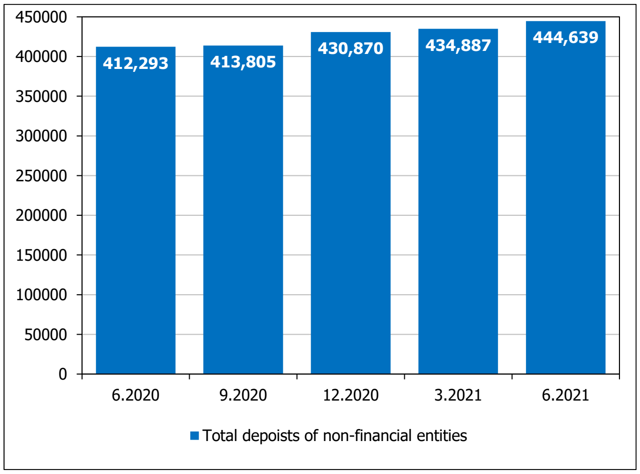
Source: National Bank, based on data submitted by banks.

Chart 60
Quarterly (up) and annual (down) growth of loans, by sector, currency and maturity
in millions of denars and in %



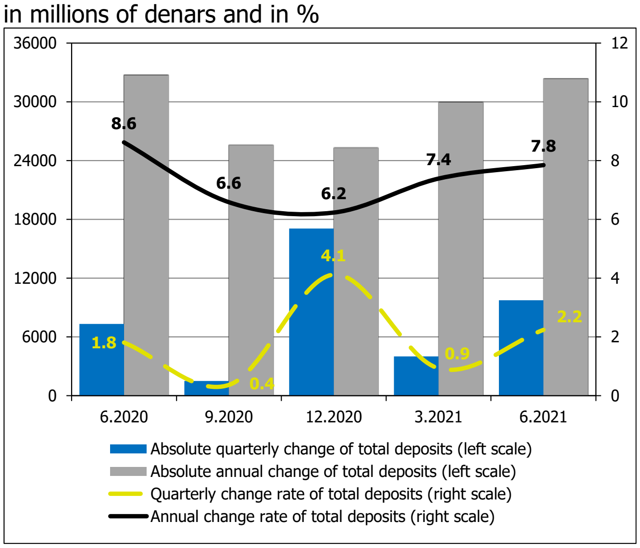
Source: National Bank, based on data submitted by banks.

Chart 61 Stock of deposits of non-financial entities
in millions of denars



Source: National Bank, based on data submitted by banks.

Chart 62 Growth of deposits of non-financial entities
in millions of denars and in %



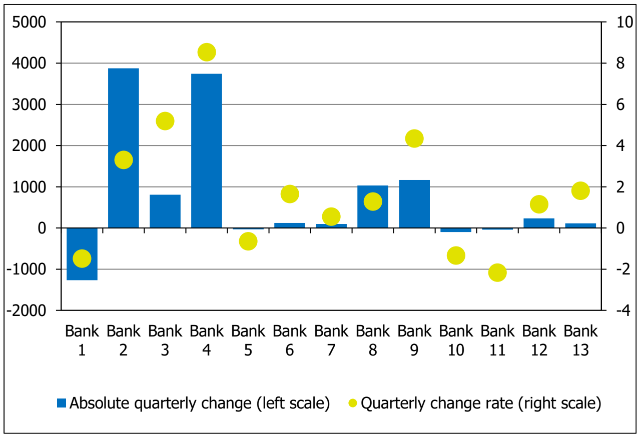
Source: National Bank, based on data submitted by banks.

1.2. Deposits of non-financial companies

In the second quarter of 2021, despite the still high uncertainty due to the pandemic, deposits of non-financial companies continue to grow rapidly, both quarterly and annually. As of 30.6.2021, the total deposit potential of banks amounted to Denar 444,639 million, which is a quarterly increase of Denar 9,752 million, or 2.2% (0.9% as of 31.3.2021), i.e. an annual increase of Denar 32,346 million or 7.8% (7.4% as of 31.3.2021). Such movements of deposits of non-financial companies confirm the public confidence in the system stability, but they also reflect the economic measures of the government to deal with the consequences of the health crisis, which provide additional funds for companies and households to improve liquidity. Analyzed by bank, four large banks almost entirely drive the quarterly growth of deposits, and only two of them account for as much as 78% of the total quarterly growth.

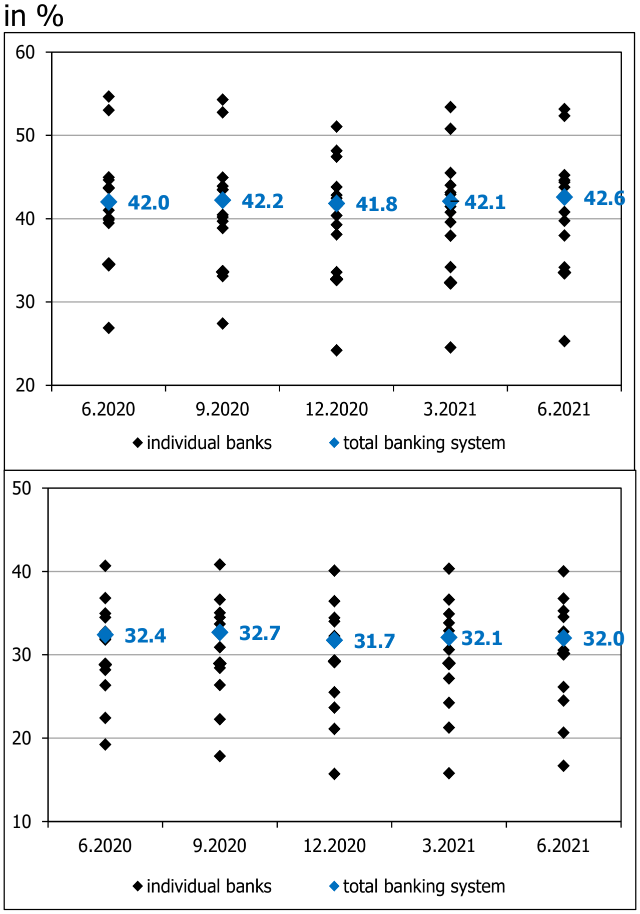
Households that are traditionally considered vital depositors in the Macedonian banking system (66.6% in total deposits) increased their deposits in banks (by Denar 2,562 million, or 0.9%) in the second quarter of 2021, slower though compared to the previous quarter (growth of 1.7%). Also, the annual growth of household deposits was slightly slower, amounting to Denar 12,103 million, or 4.3% (compared to 5.1% as of 31.3.2021).

Chart 63 Growth of deposits of non-financial companies, by bank
in millions of denars and in %



Source: National Bank, based on data submitted by banks.

Chart 64 Share of total foreign currency deposits (up) and foreign currency household deposits (below) in total deposits
in %



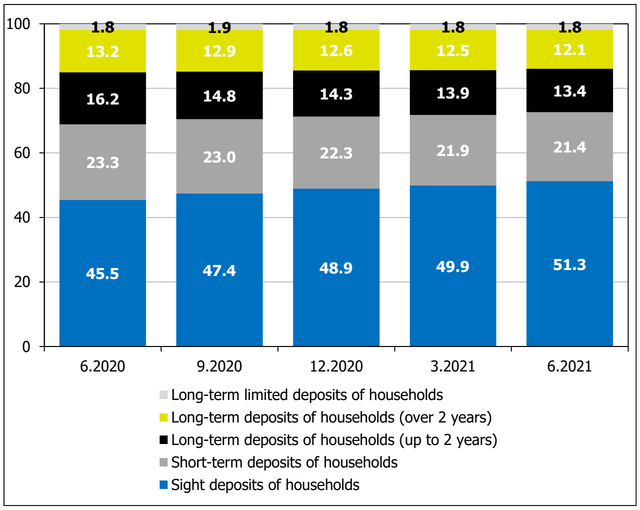
Source: National Bank, based on data submitted by banks.

After the decline in **deposits of non-financial companies** in the first quarter of the year (under the influence of seasonal factors), in the second quarter of 2021, the deposits of non-financial companies increased significantly (by Denar 6,846 million, or 5.4%), contributing for 70% of the total growth of deposits of non-financial companies. The annual growth of deposits of non-financial companies accelerated from 12.9% as of 31.3.2021 to 16.7%, as of 30.6.2021.

The protracted COVID-19 pandemic somewhat changed the currency and maturity preferences of depositors, as seen through a decline in long-term deposits, with the foreign currency deposits making the greatest contribution to the growth of total deposits. However, euroization level remained relatively stable.

The changed currency preferences of depositors from the previous year remained in the first half of 2021. Analyzing the currency, the largest contribution to the quarterly growth of the deposit base was again made by foreign currency deposits (64.5%), which in the second quarter of 2021 increased by Denar 6.294 million, or 3.4%. However, denar deposits also registered a quarterly increase of Denar 3,388 million, or 1.3%, which is acceleration compared to the growth from the previous quarter (0.5%). The quarterly growth of foreign currency deposits is mostly due to the growth of household demand deposits, while the increase in denar deposits almost entirely resulted from the growth of demand deposits of non-financial companies. Accordingly, the share of denar deposits in total deposit base decreased, which at the end of the second quarter of 2021 was 57.3% (57.8% as of 31.3.2021), while the share of foreign currency deposits increased to 42.6% (42.1% as of 31.3.2021).

Chart 65 Maturity structure of household deposits
in %

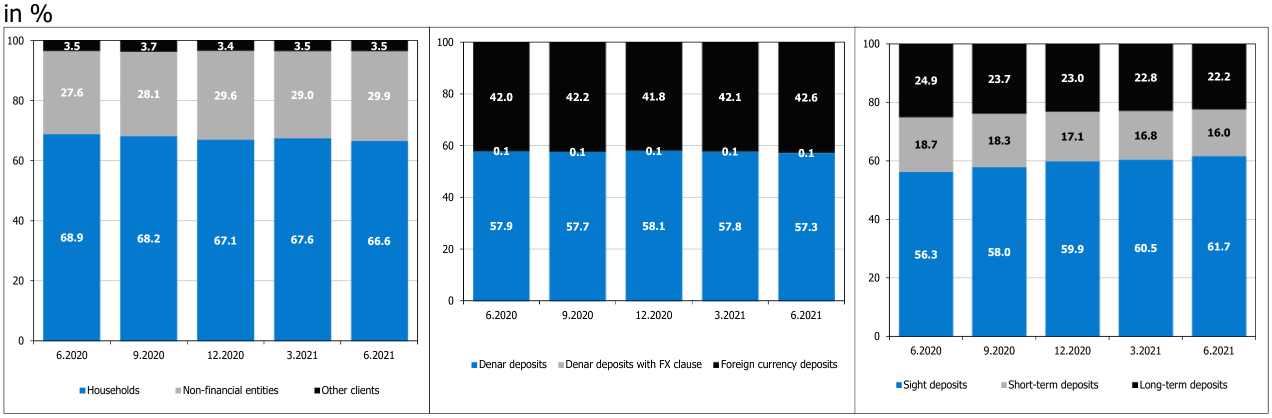


Source: National Bank, based on data submitted by banks.

Analyzing maturity, demand deposits fully contributed to the growth of total deposit base and in the second quarter of 2021 registered an absolute quarterly increase of Denar 11,474 million, or 4.4%. The increase in demand deposits is almost equally due to the growth of denar deposits of non-financial companies and foreign currency deposits of households. On the other hand, long-term[62] deposits insignificantly decreased by Denar 76 million on a quarterly basis, or by 0.1%, while short-term[63] deposits registered slightly faster decrease of Denar 1,646 million, or 2.3%, in both sectors.

Analyzing household deposit maturity, in the second quarter of 2021, there was an increase in the structural share of demand deposits (from 49.9% as of 31.3.2021, to 51.3% as of 30.6.2021). An opposite trend was observed in short-term and long-term deposits, whose share in the maturity structure of household deposits decreased (from 21.9% and 28.2% as of 31.3.2021, to 21.4% and 27.3% as of 30.6.2021, respectively).

Chart 66 Structure of total deposits, by sector (left), currency (middle) and maturity (right)
in %



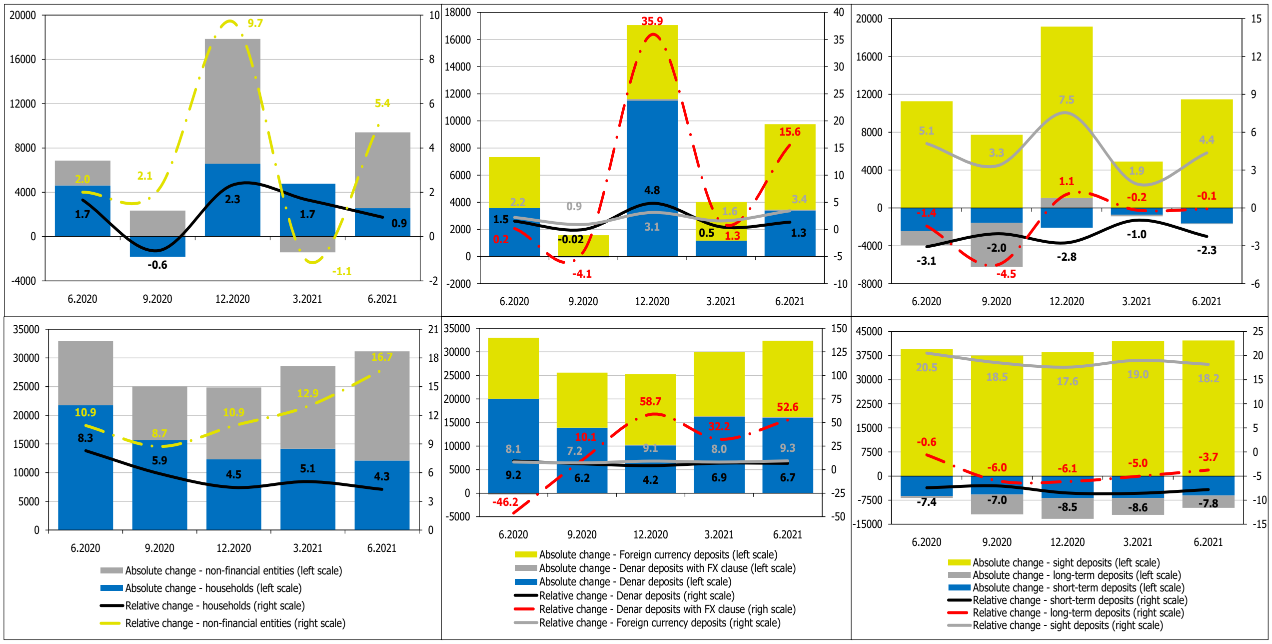
Source: National Bank, based on data submitted by banks.

---

62 The quarterly decrease in long-term deposits entirely reflects the decrease in household deposits of Denar 1,828 million, or 2.2% (almost entirely as a result of denar deposits), amid increase in deposits of non-financial companies of Denar 1,566 million, or 12% (entirely due to foreign currency deposits).
63 The absolute quarterly decrease in short-term deposits almost equally results from the decrease in household deposits of Denar 940 million, or 1.5% (where the contribution is almost identical to both denar and foreign currency deposits) and non-financial corporate deposits of Denar 628 million, or 8.7% (where the contribution of denar deposits is the highest and amounts to 69.4%).

Chart 67 Quarterly (up) and annual (down) deposit growth by sector (left), currency (middle) and maturity (right)

in millions of denars and in %

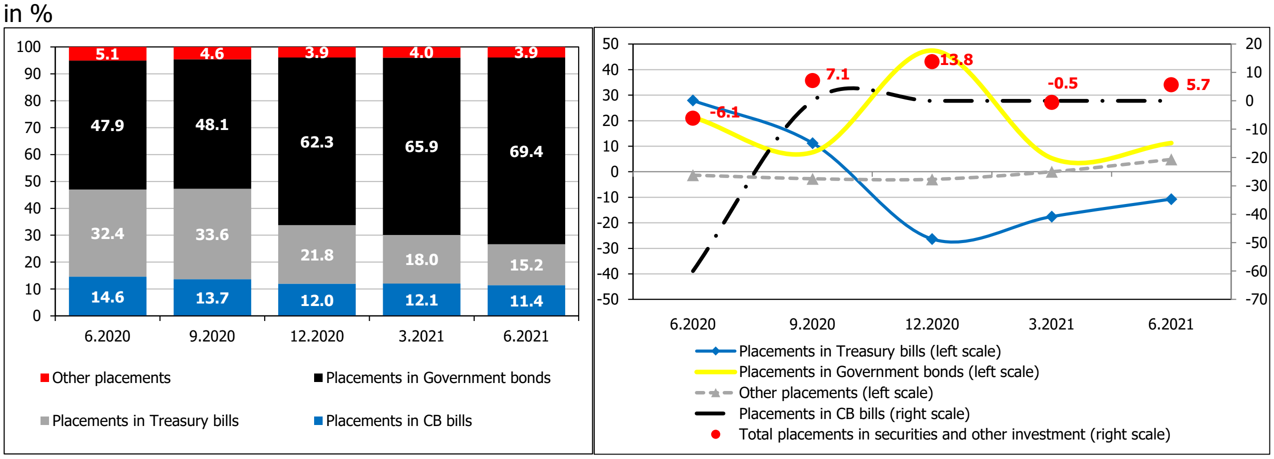


Source: National Bank, based on data submitted by banks.

1.3. Other activities

Banks' placements in debt securities and other investments[64] (net book value) increased by Denar 4,701 million (or 5.7%), which contributed to increasing their share in total assets of banks up to 14.5% as of 30.6.2021 (from 14.0% as of 31.3.2020). The faster quarterly increase of the banks 'investments in government bonds (of Denar 6,138 million, or 11.2%) fully conditioned the increase of the banks' investments in debt securities and other investments.[65] Such developments contributed to the quarterly increase of the share of investments in government bonds in the total placements in debt securities and other banks' investments from 65.9% as of 31.3.2021 to 69.4% as of 30.6.2021, at the expense of the decrease in the share of all other placements in debt securities and other investments.

Chart 68
Structure (left) and quarterly growth (right) of placements in debt securities and other investments
in %



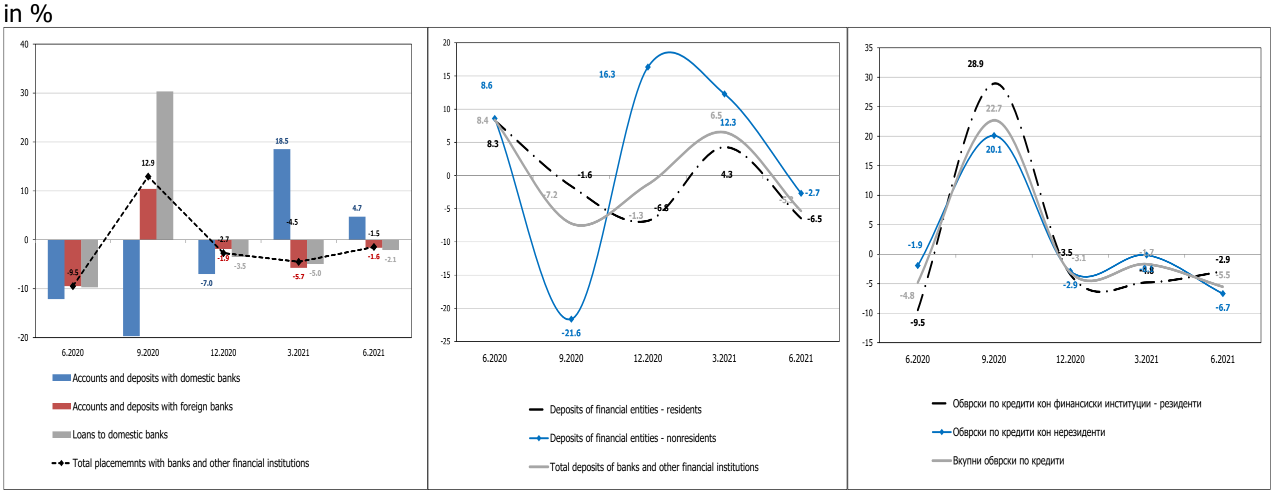
Source: National Bank, based on data submitted by banks.

In the second quarter of 2021, placements with banks and other financial institutions slightly decreased by Denar 596 million or 1.5%. The decrease was mostly due to the decrease in placements on accounts and deposits with foreign banks (of Denar 443 million, or 1.6%)[66], as well as the decrease in loans granted to domestic banks (of Denar 214 million, or 2, 1%[67]). On the other hand, placements on accounts and deposits with domestic banks increased slightly (by Denar 74 million, or by 4.7%)[68].

Total **banks' loan liabilities** decreased by Denar 1,829 million, or by 5.5% quarterly, which is almost entirely due to reduced loan liabilities to non-resident financial institutions with certain banks.

[64] Other investment includes placements in equities and investment in subsidiaries, associates and joint ventures.
[65] Banks' investments in CB bills are unchanged compared to the first quarter of 2021, which corresponds to the unchanged supply of CB bills (in the amount of Denar 10 billion). On the other hand, banks' investments in treasury bills registered a quarterly decrease of 1,597, or 10.7%.
[66] The more pronounced decline in foreign currency time deposits abroad with maturity from three months to one year and the decline in banks' assets on correspondent accounts in foreign banks is partially financed by the growth of foreign currency time deposits with maturity less than three months.
[67] The fall in long-term loans of domestic banks stems from the loans of DBNM AD Skopje placed in domestic banks, based on an approved credit line from the EIB, intended for financing domestic non-financial companies.
[68] The growth of funds on accounts and deposits with domestic banks almost entirely stems from the growth of foreign currency account balances with authorized domestic banks of one large and one small bank.

Chart 69 Quarterly growth of claims on financial institutions (left), loan liabilities (middle) and deposits of financial institutions (right)
in %



Source: National Bank, based on data submitted by banks.

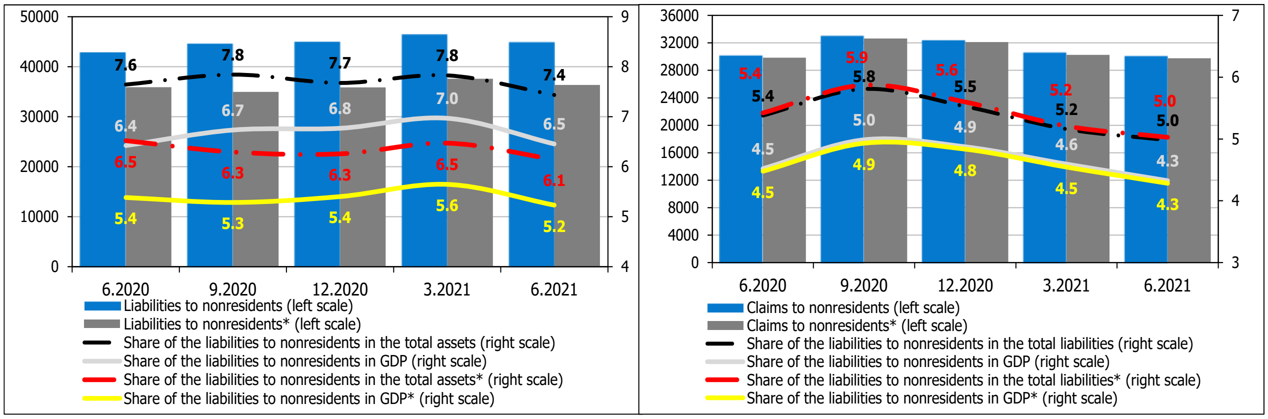
Deposits from banks and other financial institutions remain an insignificant source of banks' financing, accounting for 5.2% of total liabilities at the end of the first half of 2021. The quarterly downward correction of deposits from banks and other financial institutions (of Denar 1,770 million, or 5.3%) almost entirely reflects the reduction of pension fund deposits, due to the asset management and investment strategy of one pension company (of Denar 1,186 million), and partly the reduction of short-term deposits of other financial companies (of Denar 308 million), as well as short-term deposits of non-resident financial institutions (of Denar 261 million, where there is an overflow of funds between maturity buckets).

The scope of banking system activities with non-residents is constantly very limited, but there are deviations at a bank level. In the second quarter of 2021, as before, the banks across the banking system owe more[69] than they claim on non-residents, although liabilities decreased sharply compared to claims. Domestic banks' liabilities to non-residents registered a quarterly fall of Denar 1,550 million, or 3.3%, and their share in the total banking system liabilities insignificantly decreased to 7.4%[70] as of 30.6.2021 (7.8% as of 31.3.2021). Such decrease is almost entirely due to the reduction of long-term foreign currency loan liabilities to non-resident financial institutions with several banks and is partly due to the reduced balance of short-term foreign currency deposits (up to one month) of non-resident

[69] As of 30.6.2021, eight of fourteen banks owe more than they claim on non-residents.
[70] If DBNM AD Skopje is excluded from the analysis, the share of liabilities to non-residents in total liabilities would be 6.1%.

financial institutions with one large bank. Similar to liabilities, banks' claims on non-residents decreased on a quarterly basis by Denar 534 million (or 1.7%), mostly due to the decrease in funds on foreign bank accounts and partly due to the decrease in loan placements with a medium-sized bank.

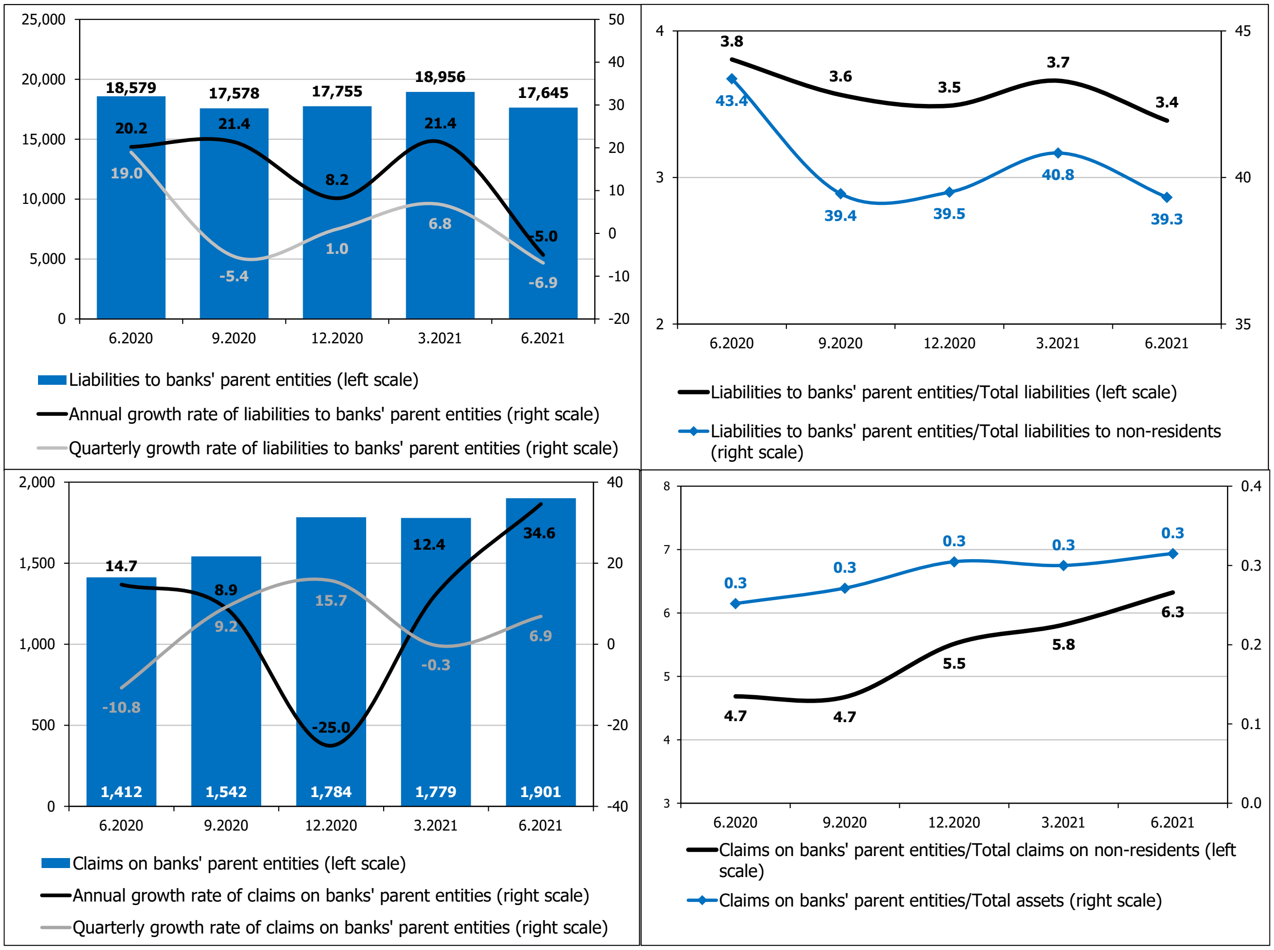
Chart 70
Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %



Source: National Bank, based on data submitted by banks.
Source for GDP: State Statistical Office.
*Without DBNM AD Skopje

Borrowing from parent entities is not a significant source of financing the domestic banks' activities, although bank-to-bank differences can be observed. In the second quarter of 2021, banks' liabilities to parent entities decreased by Denar 1,311 million (or 6.9%), which is almost entirely due to the decrease in long-term loan liabilities of a medium-sized bank and partly due to the significant decrease in short-term deposits of financial companies with a large bank, whose decline is offset by a high increase in these deposits with another large bank. Thus, the share of banks' liabilities to parent entities (including subordinated liabilities and hybrid capital instruments) in total liabilities of the domestic banking system and in liabilities to non-residents decreased to 3.4% and 39.3%, respectively. Claims on parent entities in this quarter also accounted for only 0.3% of the total assets of the banking system, while their share in total claims on non-residents increased mildly to 6.3%, which is an increase of 0.5%, or Denar 122 million compared to the first quarter of 2021.

Chart 71
Liabilities to (up) and claims on (down) banks’ parent entities
in millions of denars and in %



Source: National Bank, based on data submitted by banks.

2. Profitability

The banking system profitability ratios improved in the first half of 2021 as a result of the higher profit, compared to the same period of the previous year. The faster collection of written-off and non-performing claims by the larger banks had a significant positive impact on the banking system profitability in this half of the year. Thus, the higher financial result mostly reflects increased non-interest income primarily from the higher income from the collected previously written off claims, as well as net income from fees and commissions. Significant contribution to the profit growth was made by the reduced impairment costs (mainly financial assets), which besides the reduced number of banks, compared to the first half of 2020, also results from the release of these costs, due to higher claim collection. Net interest income also increased, but made a small contribution to increasing the banking system profitability.

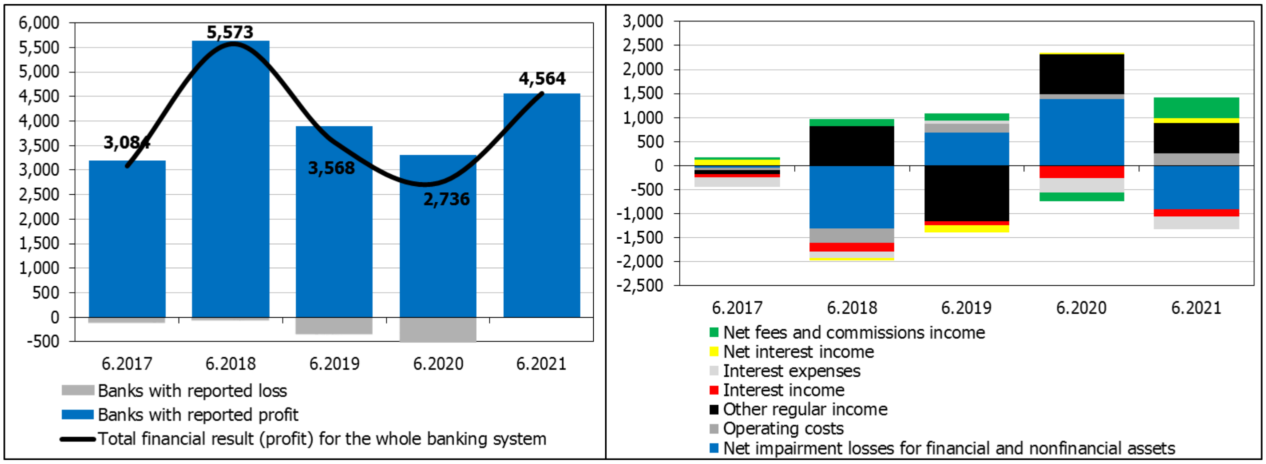
Due to the income growth, most banking sector operating efficiency and profitability ratios registered significant growth. Thus, the rates of return on assets and equity increased by 0.5 and 4.0 percentage points, reaching 1.5% and 12.6%, respectively.

In the first half of 2021, the downward trend in bank interest rates continued, but the interest rate spread did not change significantly.

2.1. Banking system profitability and efficiency ratios

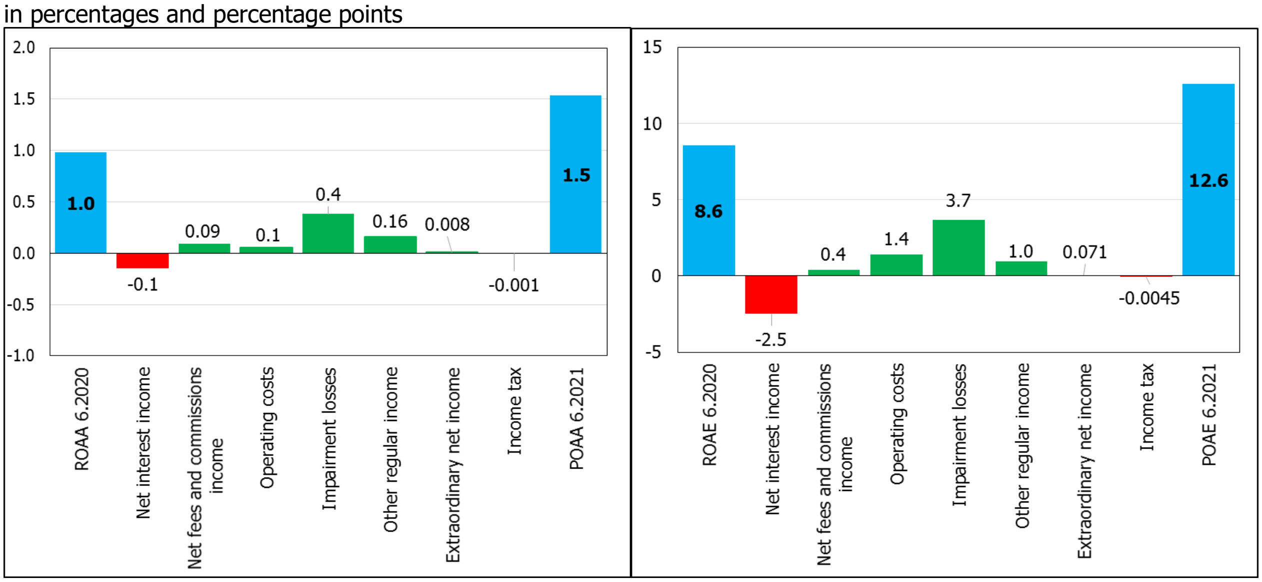
In the first half of 2021, the banking system reported a profit of Denar 4,564 million, which is higher by 1,828 million, or 66.8%, compared to the same period last year. Higher profits result mostly from the larger non-interest income of banks (by Denar 1,060 million or 24.6%), which is a result of increased income from collected previously written-off claims (in some larger banks) and higher net income from fees and commissions. Also, the reduced impairment costs of Denar 903 million, or by 27.6% (mainly financial assets), also significantly contributed to the increase in profit. Analyzed by bank, all banks achieved positive financial operating result.

Chart 72 Total bank profit (left) and annual growth in main income and expenses (right)
in millions of denars



Source: National Bank, based on data submitted by banks.

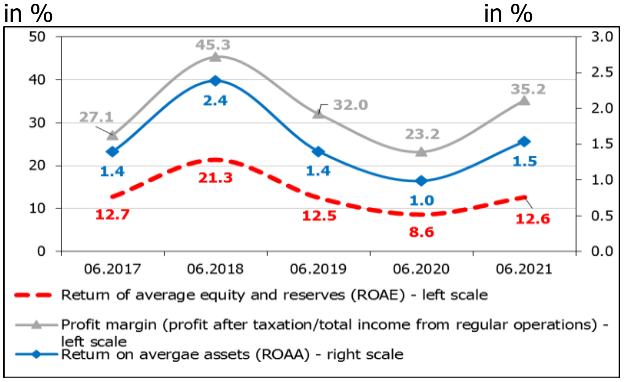
Chart 73 Decomposition of rates of return on average assets (left) and average equity (right)
in percentages and percentage points



Source: National Bank, based on data submitted by banks.
Note: The chart shows changes in individual components of profitability expressed as a share in average assets i.e. average equity and reserves. The green and red bars indicate a positive and negative contribution to the growth of ROAA/ROAE, respectively, in percentage points. ROAA and ROAE are expressed in percentages.

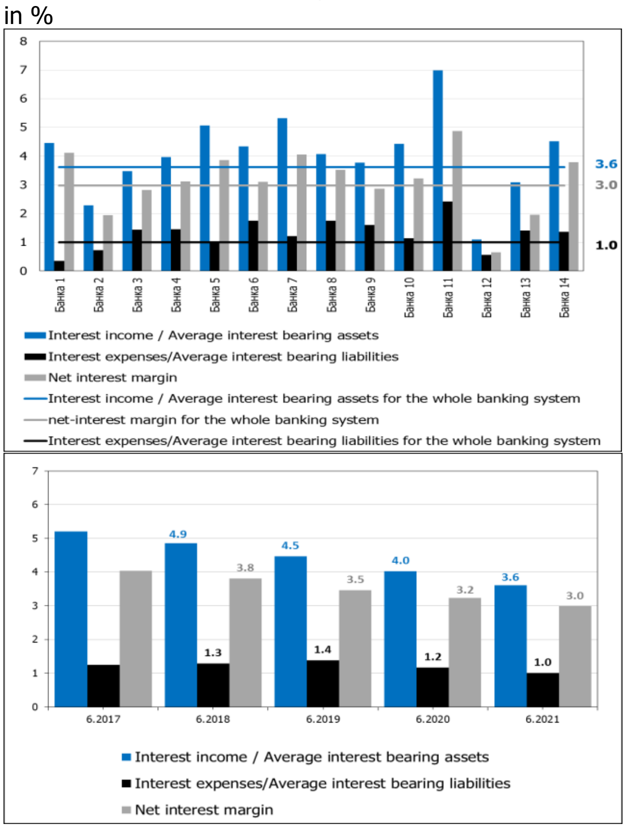
The high profit growth in the first half of 2021 improved the profitability

Chart 74
Rates of return on average assets and on average equity and reserves and profit margin



Source: National Bank, based on data submitted by banks.

Chart 75
Net interest margin by bank, as of 30.6.2021 (up)* and of the banking system (down)



Source: National Bank, based on data submitted by banks.
* Indicators of the banking system are shown in lines.

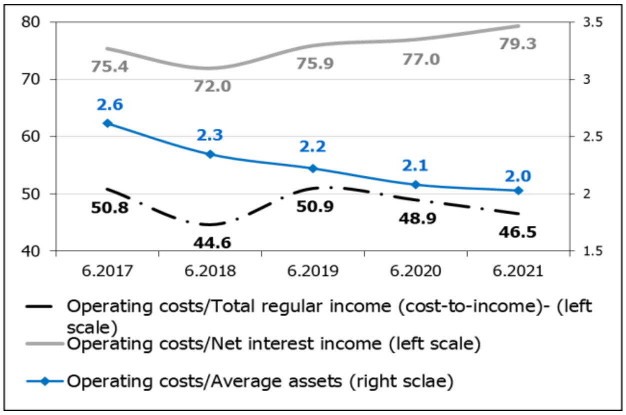
ratios[71] of the banking system. Thus, as of 30.6.2021, profitability ratios significantly increased by about fifty percent. The return on average assets and average equity increased by 0.5 and 4.0 percentage points, respectively, while the growth of profit margin was 12.0 percentage points.

The constant downtrend of interest rates also affected the trend of net interest margin. Amid more modest growth of net interest income[72] (of 1.3% or Denar 100 million), compared to the increase in the average interest bearing assets (of 9.5% or Denar 44,195 million), **the net interest margin in the first half of 2021 was 3.0% which is by 0.2 percentage points lower, compared to the same period last year.**

In the first six months of 2021, as usual, financial intermediation with households made the largest contribution to the formation (59.4%) and the growth of net interest income. Net interest income from households rose annually by Denar 233 million or 5.4%. The growth of net interest income from this sector is primarily a result of the decrease in interest expenses (of Denar 227 million, or 25.6%), with a minimal increase of 0.1% in interest income (of Denar 7 million). Net interest income from non-financial companies of 37.9% of total net interest income decreased (by Denar 116 million, or 3.9%) in the first half of 2021, due to the higher decline in interest income (of Denar 151 million, or 4.7%), compared to the decrease in interest expenses (of Denar 35 million, or 17.2%). Banks also reported higher net interest income from the government sector of Denar 166 million, or 43.7%, compared to the same period of the previous year (net interest income from the government accounted for 7.2% of total net interest income of banks). In all other sectors (financial institutions, non-profit institutions

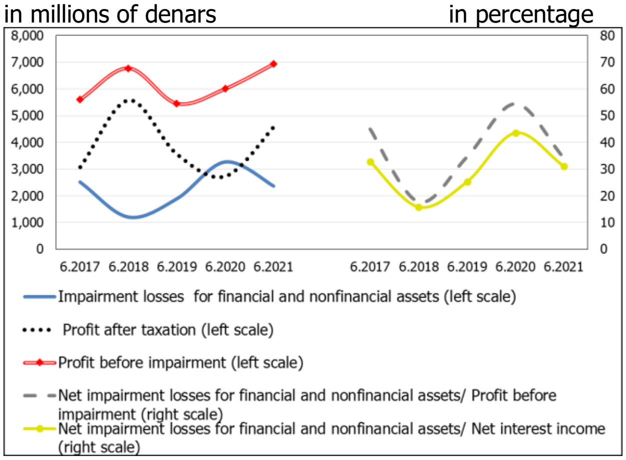
[71] Profitability and efficiency ratios of the banking system and bank groups are presented in Annexes to this Report.
[72] In the first half of 2021, the growth of net interest income resulted from the higher decline in interest expenses (of 14.1% or Denar 262 million), compared to the decrease in interest income (of 1.7%, or Denar 162 million).

Chart 76
Operational efficiency ratios
in %



Source: National Bank, based on data submitted by banks.

Chart 77
Impairment costs to gain and to net interest income ratios
in millions of denars in percentage



Source: National Bank, based on data submitted by banks.

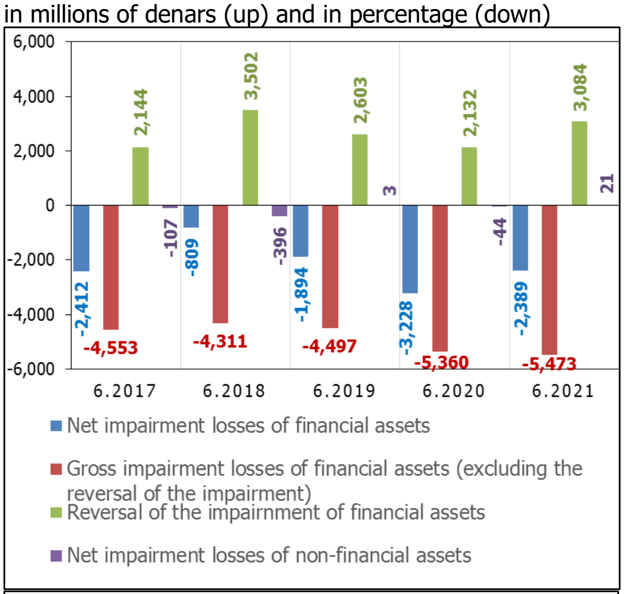
serving households and non-residents), interest expenses exceed interest income.

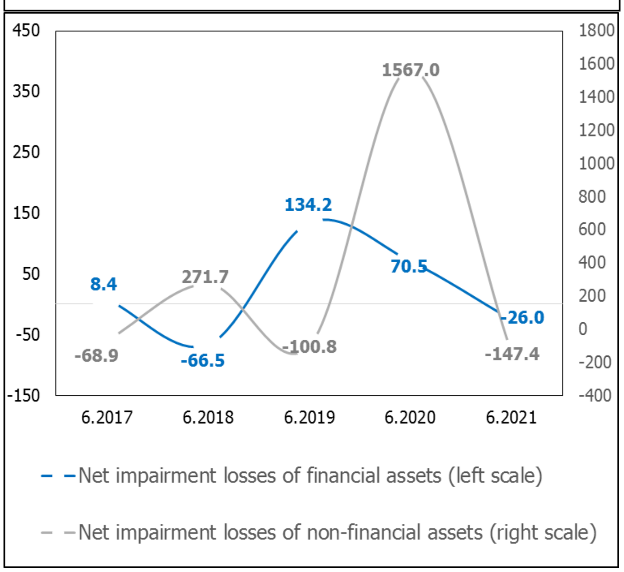
Most of the operational efficiency ratios of the banking system register favorable movements, despite the growth of operating costs. Operating costs to regular income and to average assets ratios decreased by 2.4 and by 0.1 percentage point, respectively. In contrast, operating costs to net interest income ratio increased by 2.3 percentage points. Operating costs in the first six months of 2021 are higher by 4.4% or Denar 256 million compared to the same period last year, which is a slower growth compared to the growth of average assets (7.1%) and total regular income (9.8%), but is faster than the growth of net interest income (1.3%). The increase in operating costs results from higher general and administrative costs (mainly services costs), depreciation costs and additional provisions for pension and other employee benefits. The structure of total regular income is driven by the growth of income from collected previously written off receivables (of Denar 1,279 million, or almost 4.5 times) and net income from fees and commissions (of Denar 437 million or 19.4%). Also, the capital gain from sale of assets dropped by Denar 725 million, or by 81.6%.

In the first six months of 2021, impairment cost for financial and non-financial assets (net) decreased by Denar 903 million or 27.6%. The reduction of these costs mostly results from impairment costs of financial assets (which decreased by Denar 839 million, net), mainly (with over 80%) the release of impairment of loans and placements (which is higher by Denar 725 million compared to the same period last year), due to the higher amount of collected claims[73]. The smaller number of banks (by one), compared to the first half of 2020, also contributed to the reduction of impairment costs.

[73] The reduction of net impairment cost of loans is not caused by the lower caution of banks when provisioning placements, but by the higher loan collection. This is confirmed by the growth of gross impairment of Denar 113 million, or 2.1%.

Chart 78
Amount of impairment costs of financial and non-financial assets (up) and annual growth rates of impairment costs of financial and non-financial assets (down)
in millions of denars (up) and in percentage (down)





Source: National Bank, based on data submitted by banks.

The net impairment cost of non-financial assets decreased compared to the same period in 2020 by one and a half times or by Denar 64 million and as of 30.6.2021, it had a status of income item in the amount of Denar 21 million[74].

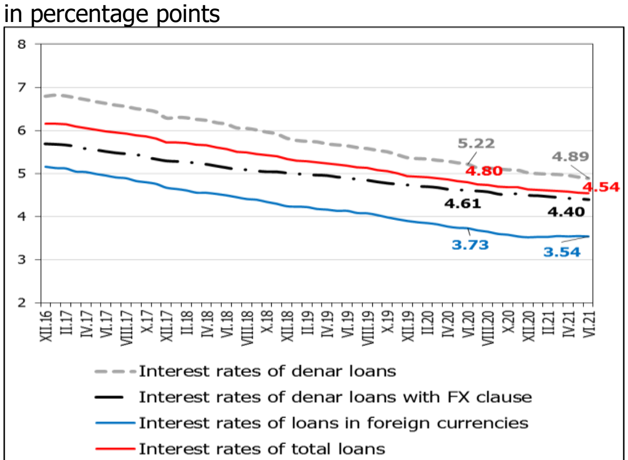
2.2. Movements in interest rates and interest rate spread

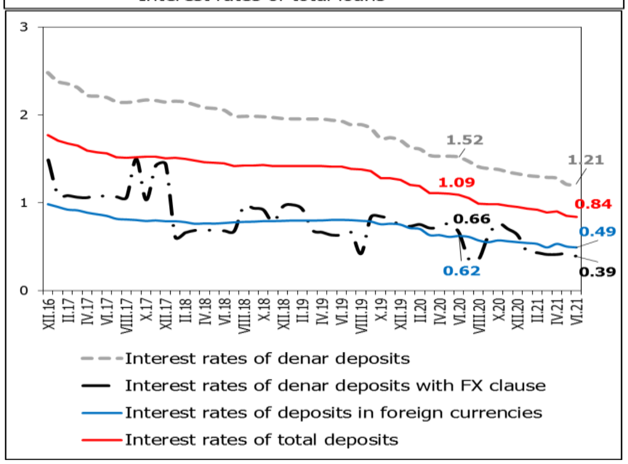
Banks' interest rates continued decreasing. Thus, in the first half of 2021, the weighted average lending and weighted average deposit interest rates were 4.6% and 0.9%, respectively, which, compared to the same period last year, decreased by 0.3 and 0.2 percentage points, respectively.

According to the currency features, the decrease of 0.3 percentage points of the weighted average interest rate on denar and foreign currency loans for the first half of 2021 (compared to the same period last year) is almost identical. The weighted average interest rate on denar deposits also decreased by 0.3 percentage points, while the decline in the

[74] The net impairment of non-financial assets is positive (in the same period of the previous year it was negative), as a result of the larger release compared to the new impairment cost. Thus, the impairment cost of non-financial assets decreased from Denar 59 million (for the first half of 2020) to Denar 13 million (for the first half of 2021), while the release of this impairment increased from Denar 16 million (as of 30.6.2020) to Denar 34 million (as of 30.6.2021).

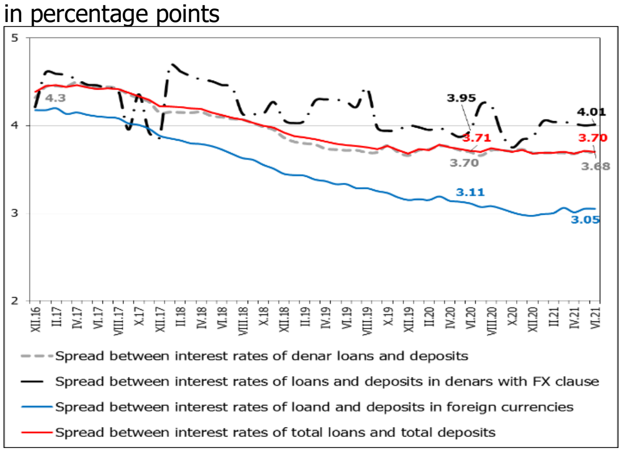
Chart 79
Lending (up) and deposit interest rates (down)
in percentage points





Source: National Bank, based on data submitted by banks.

Chart 80
Interest spread
in percentage points



Source: National Bank, based on data submitted by banks.

weighted average interest rate on foreign currency deposits was lower (0.1 percentage point).

Given almost identical decrease of weighted average lending and weighted average deposit interest rates, the interest rate spread did not changed significantly i.e. narrowed by only 0.04 percentage points, compared to the same period of the previous year.

ANNEXES