National Bank of the Republic of North Macedonia
Financial Stability and Macroprudential Policy Department

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

December 2021

Contents

Summary

Banks operated in conditions of a pandemic also in the third quarter of 2021. Along with the uncertainties the pandemic had brought, in this period the risks associated with the disturbance of the value chains and the volatility in the primary commodities markets were also pronounced. In conditions of preserved macroeconomic stability, the deposit growth of the banking system continued on a quarterly basis, although at slower pace. Foreign currency deposits and very short-term deposits remained the largest contributors to the quarterly total deposits growth. The credit growth as well registered a quarterly deceleration, which was mainly directed at the households, mostly in denars or denars with FX clause. This quarter was also marked by the completion of the process of the acquisition of one bank by another, which reduced the number of banks and enlargement of the banking system. This, in turn, led to a certain increase in the concentration indicators of the banking system activities.

The National Bank also applied a relaxed monetary policy also in the third quarter of 2021, keeping the key interest rate at the historically lowest level of 1.25%. At the beginning of August, the National Bank Council decided to repeal the Decision on temporary restriction of dividend distribution and payment (which was adopted in February 2021). The Decision was repealed after a previous due diligence of the current circumstances, developments and perceptions of the banking system and the environment it operates in, taking into account the results of stress tests on the banking system's resilience to presumed shocks.

The solvency of the banking system remained stable. Following the repeal of the Decision on temporary restriction of distribution and dividend payment, two banks paid dividends to shareholders, which did not have a significant impact on their capitalization and the capitalization of the banking system. The capital adequacy ratio remained unchanged (17.3%), compared to 30 June 2021, as a result of the minor quarterly changes in own funds and risk weighted assets. The structure of own funds is predominated by the Common Equity Tier I capital, with over 90%, and is composed of capital positions of the highest quality. Moreover, around 11% of banking system own funds are "available" own funds, exceeding 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 similar to the previous quarter, having in mind the similar initial level of the capital adequacy ratio, prior to the simulations.

The liquidity indicators remain satisfactory. In the third quarter of 2021, the liquid assets of the banking system registered a minor quarterly decline, which conditioned a certain decrease in the liquidity indicators as well. However, they still indicate proper liquidity risk management of banks, which is confirmed by the relatively stable share of liquid assets in the total bank assets (31.6%) and the coverage of short-term liabilities and household deposits with liquid assets also remained stable (of 51.7% and 62.7%, respectively). The Liquidity coverage ratio equals 277.7%, which is by almost three times higher level than the regulatory minimum (100%) and confirms the sufficient amount of liquidity available to the Macedonian banking system.

In the third quarter of 2021, non-performing and regular restructured loans to non-financial entities increased, but the credit risk materialization is within control. The growth of non-performing loans to non-financial entities conditioned a minimal increase in their

share in total loans, of 0.1 percentage point, to the level of 3.6%. From a sectoral point of view, the growth of non-performing loans was concentrated in household loans, while non-performing corporate loans decreased minimally. Non-performing to total loan ratio remained at the historically lowest level of 5.1% in the corporate loan portfolio, while in the loan portfolio composed of households it deteriorated by 0.2 percentage points and reached 2.2% as of 30 September 2021. Regular restructured loans registered accelerated growth in the past three quarters, which largely stems from restructured loans due to deteriorated financial condition of clients as a result of the corona crisis. The share of regular restructured loans in the total regular loans of non-financial entities increased by 0.3 percentage points and on 30 September 2021 reached 2%, which so far is not a significant risk factor.

In the first nine months of 2021, the banking system reported higher operating profit, compared to the same period last year. The higher profit mostly stems from non-interest rate income, which is mainly a result of increased income based on collected previously written-off claims and higher net income from fees and commissions. Net interest income also made a slightly higher contribution to profit growth compared to previous years. The rates of return of average assets and average equity improved, compared to the first nine months of 2020 and reached levels of 1.6% and 13.4%, respectively. Operating efficiency indicators show different movements, with an increase in operating costs of 7.8%, compared to the same period last year.

The banking system's exposure to currency risk and interest rate risk equal 4.6% and 10.6% of own funds, respectively, which is acceptable and below the prescribed limits.

The risks in relation to the economic activity growth pace and the activities of the banking system in the next period are largely associated with the further developments with respect to the health crisis, as well as with the disturbances in the global value chains and current energy crisis. The National Bank will continue to carefully monitor the situation and will appropriately take measures, when necessary.

I. Structure of the banking system

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

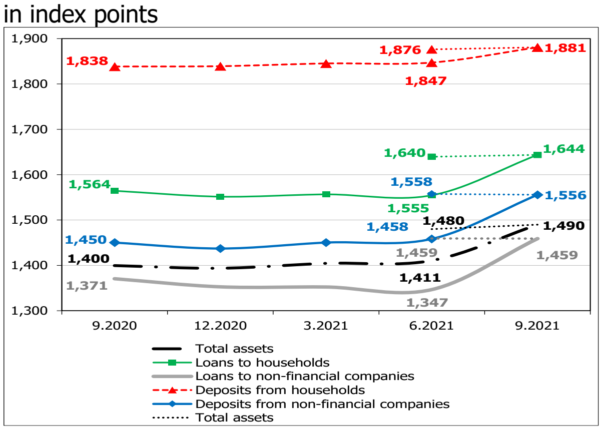
The number of banks in the Republic of North Macedonia decreased by one[1] as of 30.09.2021, compared to the previous quarter, and equaled thirteen banks. At the same time, the number of banks that are predominantly owned by foreign shareholders also decreased (nine banks), as well as the number of subsidiaries of foreign banks (five banks).

Table 1
Structure of major balance sheet positions, by banks' majority ownership (as of 30.09.2021)
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	**9**	**57,397**	**76.3%**	**432,851**	**71.1%**	**304,333**	**81.8%**	**311,900**	**69.1%**	**19,272**	**74.6%**	**6,122**	**71.5%**
- subsidiaries of foreign banks	*5*	*50,727*	*67.4%*	*361,688*	*59.4%*	*252,215*	*67.8%*	*265,579*	*58.8%*	*16,484*	*63.8%*	*5,555*	*64.9%*
- Austria	1	8,323	11.1%	70,920	11.7%	52,575	14.1%	44,085	9.8%	2,761	10.7%	381	4.4%
- Bulgaria	1	1,242	1.6%	11,129	1.8%	7,524	2.0%	7,649	1.7%	399	1.5%	15	0.2%
- Greece	1	17,349	23.1%	106,979	17.6%	77,506	20.8%	84,558	18.7%	5,654	21.9%	2,414	28.2%
- Slovenia	1	13,406	17.8%	103,154	16.9%	66,384	17.9%	82,943	18.4%	5,133	19.9%	2,175	25.4%
- Turkey	1	10,407	13.8%	69,505	11.4%	48,226	13.0%	46,345	10.3%	2,536	9.8%	570	6.7%
- other banks in dominant foreign ownership	*4*	*6,670*	*8.9%*	*71,163*	*11.7%*	*52,118*	*14.0%*	*46,321*	*10.3%*	*2,788*	*10.8%*	*567*	*6.6%*
- Bulgaria	2	3,178	4.2%	26,490	4.4%	18,514	5.0%	19,361	4.3%	1,369	5.3%	293	3.4%
- Germany	1	2,913	3.9%	36,711	6.0%	28,327	7.6%	21,373	4.7%	1,074	4.2%	175	2.0%
- Switzerland	1	578	0.8%	7,962	1.3%	5,276	1.4%	5,587	1.2%	346	1.3%	99	1.2%
Banks in dominant ownership of domestic shareholders	**4**	**17,860**	**23.7%**	**175,744**	**28.9%**	**67,529**	**18.2%**	**139,775**	**30.9%**	**6,555**	**25.4%**	**2,440**	**28.5%**
- private ownership	*3*	*15,024*	*20.0%*	*164,530*	*27.0%*	*67,499*	*18.2%*	*139,775*	*30.9%*	*6,442*	*24.9%*	*2,401*	*28.0%*
- state ownership	*1*	*2,836*	*3.8%*	*11,214*	*1.8%*	*30*	*0.0%*	*0*	*0.0%*	*113*	*0.4%*	*38*	*0.4%*
Total:	**13**	**75,257**	**100.0%**	**608,595**	**100.0%**	**371,861**	**100.0%**	**451,675**	**100.0%**	**25,828**	**100.0%**	**8,562**	**100.0%**

Source: National Bank, based on data submitted by banks.
*Total income and financial result are calculated for the last twelve months (30.9.2020-30.9.2021).

Chart 1
Herfindahl index*
in index points



Source: National Bank, based on data submitted by banks.
* The chart also shows the values of the index as of 30 June 2021 (with dashed lines), which includes the effects of the merger of the two banks (data for both banks on 30 June 2021 are taken on a cumulative basis, i.e. both banks are considered as single institution).

In the third quarter of 2021, the banks predominantly owned by foreigners remained dominant in the structure of major balance sheet positions of the banking system. Changes compared to the previous quarter are minimal, except for the share of the mostly foreign-owned banks in the total financial result, which increased by 1.5 percentage points (to the level of 71.5%) with both capital and reserves, which increased by 1.4 percentage points (to the level of 76.3%). The share of banks in foreign ownership in the total loans to non-financial sector remains the most pronounced (81.8%).

The concentration in the banking system increased, which is mostly due to

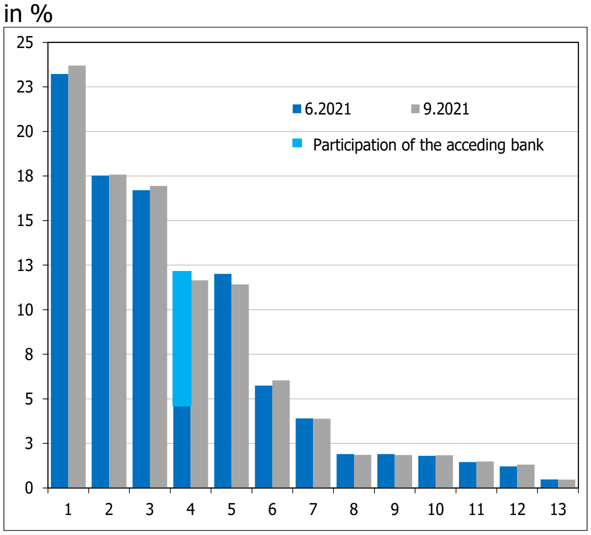
[1] In July 2021, Sparkasse Banka Makedonija AD Skopje and Ohridska Banka AD Skopje merged into one bank.

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

Position	30.09.2021		30.06.2021		
	CR3	CR5	CR3	CR5	CR5**
Total assets	58.2	81.3	57.5	77.0	81.6
Loans to households	61.2	83.2	60.1	78.2	83.2
Loans to non-financial companies	50.5	79.0	49.0	76.6	78.6
Deposits from households	71.0	85.6	70.9	82.4	85.6
Deposits from non-financial companies	55.4	83.6	55.7	79.6	84.4
Financial result*	76.5	87.6	74.2	87.4	87.4
Total revenues*	61.3	81.8	61.4	77.3	81.6

Source: National Bank, based on data submitted by banks.
*Total income and financial result are calculated for the last twelve months (30.9.2020-30.9.2021).
** The indicator in this column is calculated by including the effects of the merger of the two banks (data for both banks on 30 June 2021 are taken on a cumulative basis, i.e. both banks are considered as single institution).

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



Source: National Bank, based on data submitted by banks.
* As of June 30, 2021, the two banks that were later integrated into one institution are presented within one pillar, where the separate market share of those two banks can also be seen.

the acquisition of one bank by another. As of 30.9.2021 all values of the Herfindahl index[2] registered certain increase compared to the previous quarter. Analyzed individually, by categories of activities, a significant increase is registered in the loans of non-financial companies by 112 index points and in the deposits of non-financial companies by 97 index points. Except the household deposits (where the Herfindahl index in the last five quarters slightly exceeds the acceptable level of 1800 index points), all other activity categories, the Herfindahl index is within the acceptable values.[3]

On a quarterly basis, almost all of the indicators for the share of three and five largest banks in the banking system, registered an increase. Indicators for the share of the five largest banks increased slightly (eg. in household loans by 5 percentage points, or in total income by 4.5 percentage points), as a consequence of the aforementioned acquisition of one bank by another.

The difference in the amount of the assets between banks remains high, whereby the spread between the bank with highest share (23,7%) and the bank with the lowest share (0.5%) in total assets increased on a quarterly basis, by 0.5 percentage points. Thereby, seven banks have individual market shares of less than 5% (their common market share is 12.7%). By bank, more noticeable increase in the market share by total assets was registered by the first, the third and the sixth bank by assets volume, while significant decrease in market share was registered by the fourth and fifth bank. In other banks, the market shares are almost unchanged.

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[2] 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.
[3] When the index ranges from 1,000 to 1,800 points, the concentration ratio is considered to be acceptable.

II. Bank risks

1. Credit risk

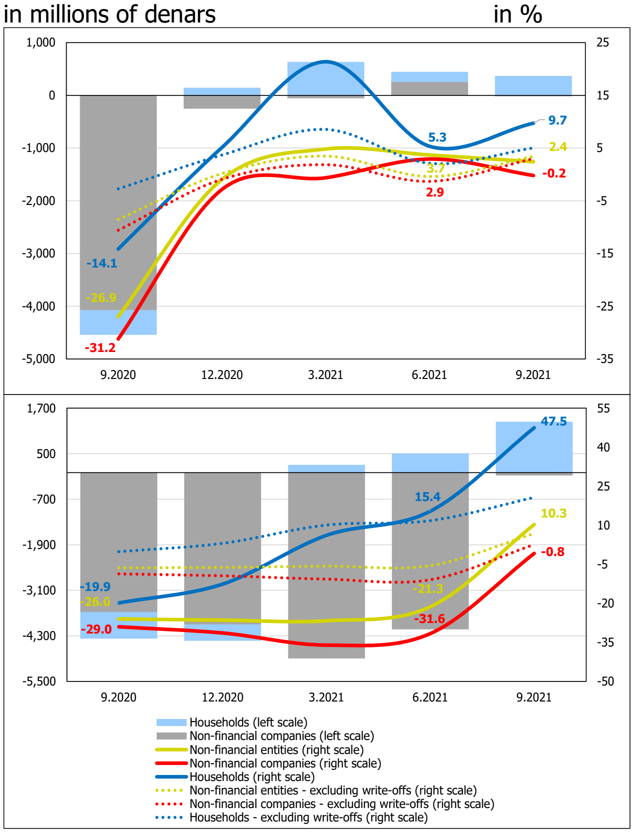
In third quarter of 2021, certain materialization of the credit risk was registered, which is perceived through the higher level of non-performing loans, as well as increase in the restructured loans. Amid a slower credit support to the non-financial sector, the rate of non-performing loans minimally deteriorated and equaled 3.6%. The uncertainty arising from the development of the pandemic and the process of immunization[4] is still an important factor affecting the credit risk the banks are exposed to.

From a sectoral point of view, the growth of non-performing loans was mainly concentrated in household loans. Non-performing corporate loans decreased minimally, mainly due to the write-off of non-performing loans by a larger client. However, there was a certain materialization of the credit risk within the credit portfolio of non-financial companies, due to default payment by individual corporate clients in several activities, for which the banks facilitated the financial burden due to the corona crisis. Non-performing to total loan ratio remained at the historically lowest level of 5.1% in the corporate loan portfolio, while in the loan portfolio composed of households it deteriorated by 0.2 percentage points and reached 2.2% as of 30.9.2021. Despite the increased credit risk, the share of non-performing loans in the total loan portfolio is not high.

The coverage of the non-performing loans with impairment is at relatively high level, despite the minor decrease in the third quarter of 2021, which, together with the satisfactory volume and quality of the own funds, limit the negative effects of a possible complete loan default on the banks' solvency. This has been proven by the stress testing results, according to which the solvency of the banking system would be "jeopardized" only in case of extremely high growth of non-performing loans.

The temporary delay in the collection of the loans which were under the so-called corona measures, i.e. repayment moratorium, ended with almost all clients as of September 2021. From the beginning of 2021, the banks intensified the procedures for restructuring the liabilities of some of the borrowers facing financial difficulties. However, the loans restructured due to the corona crisis have a very small share in the total loans to the non-financial sector (0.7%) and for the time being do not represent a significant risk factor. But, given the prolonged duration of the pandemic, one can expect an increased volume of restructurings in the next period, in order to appropriately adjust the credit conditions to the financial standing of the clients. The caution and objectivity of the banks when performing the restructuring will enable easier overcoming COVID-19 crisis and further smooth functioning of the credit users, which will maintain the quality of the banks' loan portfolio. An increased materialization of the credit risk could be expected, as well as growth of non-performing loans with the banks. The main source of new non-performing loans are claims on customers faced with more pronounced financial difficulties, i.e. unstable / uncertain monthly income, as well as those whose income is related to the activities that most reflected the negative effects of the coronary crisis, and where was no possibility for restructuring, or the restructuring did not yield the expected results.

Chart 3
Quarterly (top) and annual (bottom) growth rate of non-performing loans to non-financial entities



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 - 30.9.2021. 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 third quarter of 2021, total non-performing loans to non-financial sector increased by 2.4% (or by Denar 311 million). The increase in non-performing loans is mainly a result of the loans that were under the so-called corona measures. **Since the beginning of the pandemic, underpinned with the regulatory flexibility provided by policy makers, banks have eased the credit burden on some of their customers, mainly by approving grace periods on credit-based liabilities, which have helped to slow down credit risk and the creation of new non-performing loans.** The uncertainty due to the duration of corona pandemic is still present, as well as the uncertainty related to the regularity of the loan repayment by clients, **in conditions when the grace period expired on almost all loans where it was approved (99.6% as of 30 September 2021).** Therefore, further higher credit risk materialization and growth of non-performing loans with banks can be expected, especially from loans with approved second grace period. At the aggregate level, these loans for which a second grace period was approved, cover only 4.5% of the total regular loans to the non-financial sector as of 30.9.2021[5]. However, in certain activities within the corporate sector, the share of loans with approved grace period is higher, most commonly, 22.0%, being approved for clients from the "catering activity", as one of the most corona affected economic branches.

The increased volume of the non-performing loans in the third quarter of the year mainly stems from their increase in households. The non-

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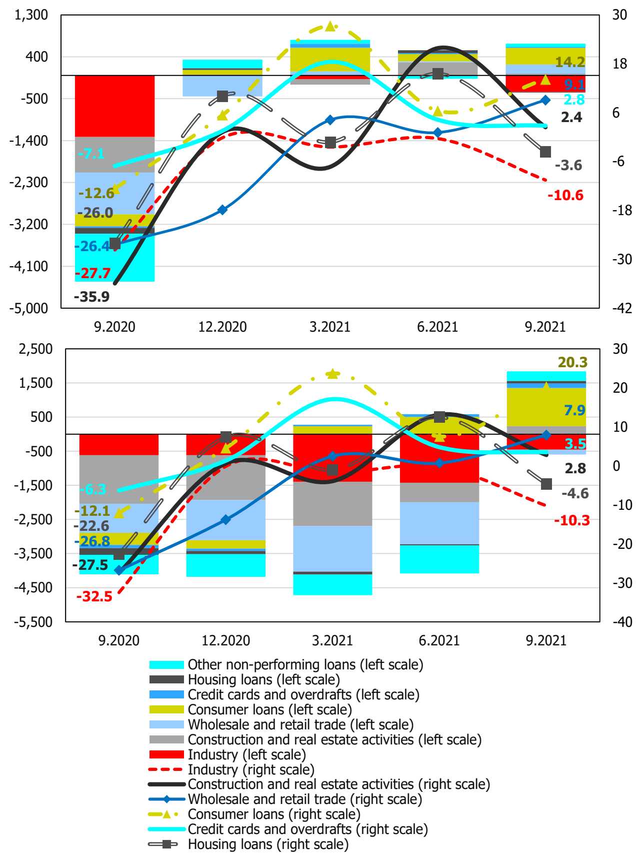
[4] In conditions of emergence of new variants and spread of the virus waves and relatively low level of vaccinal immunization, which imposed the need for the introduction of certain restrictive measures in order to stimulate increased vaccination of the population.
[5] By sector, the loans for which second grace period was approved, participate with 5.2% and 4.0% in the total regular corporate and household loans, respectively.

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

in millions of denars in %



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

performing loan portfolio composed of households grew by 9.7% quarterly, or by Denar 370 million[6]. The growth of non-performing loans to households is almost entirely attributed to non-performing consumer loans, which increased by 14.2%, or by Denar 360 million. Non-performing loans based on overdrafts on transaction accounts (by Denar 11 million, or 5.3%) and other loans (by Denar 16 million, or 7.5%) also increased. The new non-performing loans of households are mostly due to non-paying individual small amounts of loans by several clients, for which the loan repayment was temporary "frozen" due to corona crisis.

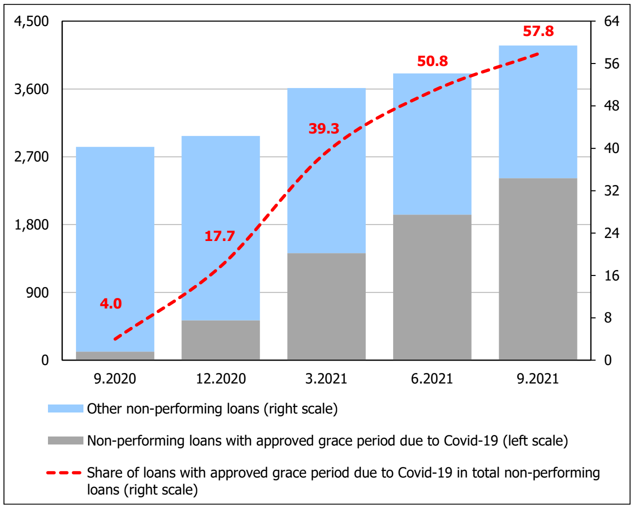
The corporate non-performing loans[7] reducded minimally by 0.2%, or by Denar 18 million. In the corporate loan portfolio, the non-performing loans register different movements in certain activities. Thus, a more pronounced increase is characteristic for the clients from the "processing industry"[8], "wholesale and retail trade" and "transport and storage", while a significant decrease was registered with the clients from the activity "electricity, gas, steam and air conditioning supply". The write-off of the non-performing claims on a larger client contributes to the almost unchanged level (or decline of 0.2 percentage points) of the non-performing corporate loans in the third quarter of 2021[9]. The new non-performing loans mainly arise from the transition of the claims of several larger customers to those with a non-performing status, and which obtained grace period due to COVID-19 conditions.

So far, the creation of new non-performing loans is less pronounced in the corporate loan portfolio, compared

[6] If the effect of mandatory net write-offs is excluded, then the quarterly growth of non-performing loans is lower and amounts to 5.0%. This is due to the higher growth of the previously mandatory written off loans, as opposed to the increase in the written off loans in the third quarter of 2021.
[7]Non-performing corporate loans prevail in the total non-performing portfolio with a share of 67.4%.
[8] The growth of non-performing loans of this activity is concentrated in the following industries: "food industry", "other manufacturing industry" and "chemical industry".
[9] Without the effect of this larger write-off, the non-performing loans to companies would have increased by 9.2%.

Chart 5 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 %

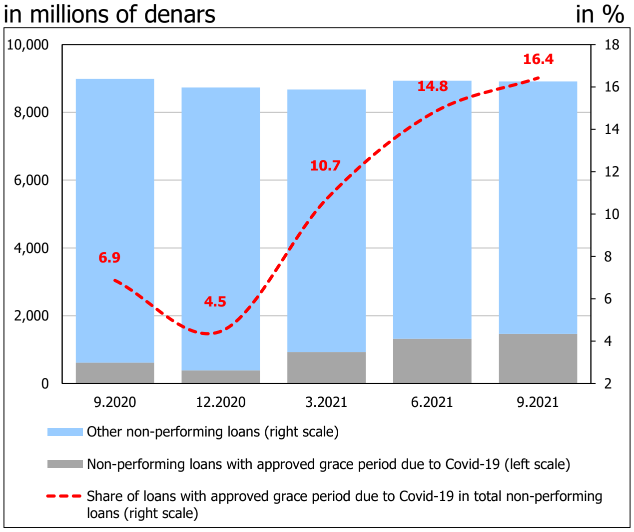


Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 6

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.

to household loans. The non-performing loans, previously under moratorium due to the corona crisis, account for closely 60% of the total non-performing loans to households as of 30.9.2021, thus entirely determining the quarterly growth of total non-performing loans in this sector. The non-performing loans arising from loans that were under moratorium account for about 16% of total non-performing loans to enterprises.

With the growth of non-performing loans and further credit support by banks (although slowed down on a quarterly basis), **the quality of the banks' loan portfolio remained almost the same in the third quarter of 2021**. As of 30 September 2021, the non-performing to total loans ratio of the non-financial sector equaled 3.6%[10], which is by 0.1 percentage point higher compared to the previous quarter.

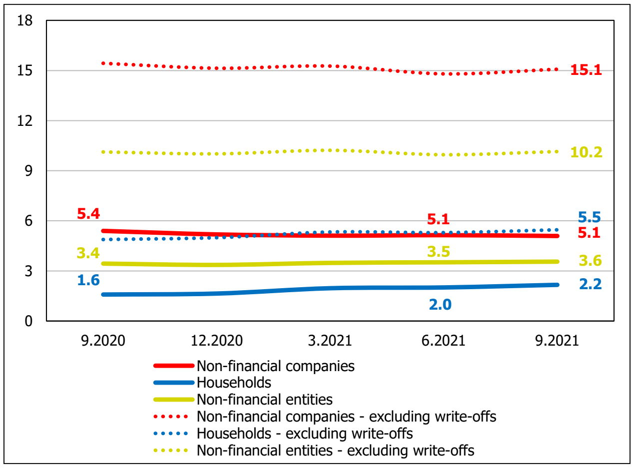
Slightly more pronounced deterioration in non-performing-to-total loans ratio is in the household portfolio, where on 30 September 2021, 2.2% of total loans are non-performing. This rate is higher for consumer loans (amounting to 2.7%, with a quarterly increase of 0.3 percentage points) and overdrafts on transaction accounts (3.3%, with an increase of 0.2 percentage points). The rate of non-performing loans to households (excluding the net write-off effect) was 5.5% and with a increase in the third quarter of 2021, it got closer to its 10-year moving average (15.5%).

In the corporate credit portfolio, the rate of non-performing loans remained at the historically lowest level of 5.1%[11]. By activity, this rate deteriorated in "wholesale and retail trade" and "catering". However, excluding the net write-off effect, the non-performing corporate lending rate

[10]Without the effect of the mandatory net write-offs, the share of non-performing to total loans equals 10.2% and is below the 10-year moving average (11.0%).

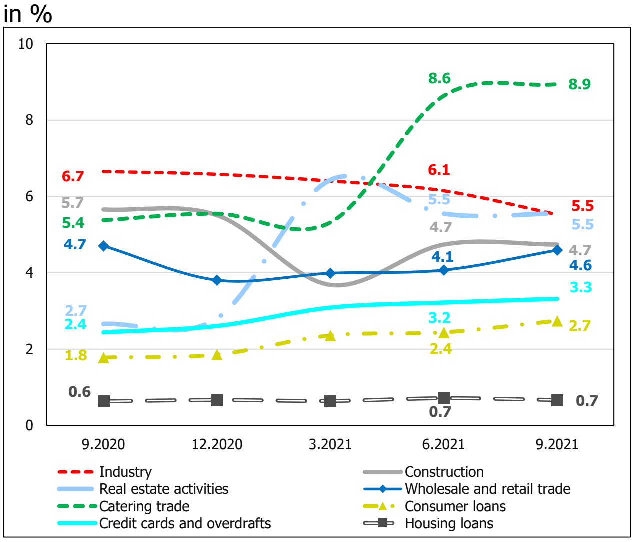
[11] If the effect of the mentioned larger write-off is excluded, the non-performing loans rate is 5.5%.

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 %



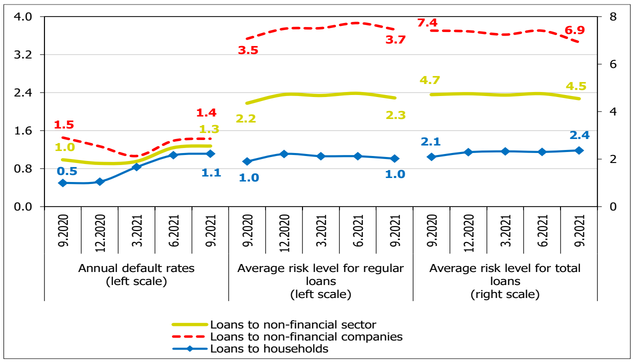
Source: National Bank's Credit Registry, based on data submitted by banks.

was 15.1%, approaching its 10-year moving average (15.6%).

The annual default rate of regular credit exposure of the overall non-financial sector and of both its segments, remained unchanged in the third quarter of 2021. However, the average provisioning of the total regular loans decreased (deteriorated). In 2021, there is an increase in the default rate with households, primarily due to corona measures for loans whose moratorium expired at the end of 2020. Thereby, the banks did not adequately rise the average anticipated losses from this portfolio, which signalize that the banks have possibly underestimated the risks of this portfolio. Hence, it is necessary to closely monitor the quality of this segment of the banks' loan portfolio, especially loans that were previously temporarily deferred due to the pandemic. Regarding corporations, the banks consistently allocate higher amount of impairment relative to realized default rates, which indicates their perceptions for larger risks of lending to corporations than to households, covering them even more with provisions.

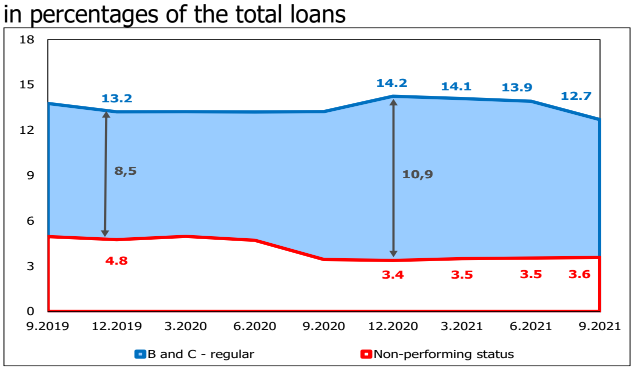
The COVID-19 pandemic caused an increase in regular loans whose repayment is with certain delay and less new non-performing loans due to the approved moratorium, which was particularly pronounced in mid 2020. In the fourth quarter of 2020, with the termination of the validity of the regulatory relief due to corona crisis, there was a certain shift within the regular loans, from risk category "A", to the next two risk categories ("B" and " C”, whose share in the total loans of nonfinancial entities increased to 14.2% on 31.12.2020), and non-performing loans decreased. This led to the widening of the gap between these two groups of loans ("B" and "C" - regular and non-performing loans) which was present for three consecutive quarters,

Chart 9
Annual rates of default and average risk level of performing and total loans, by sector
in %



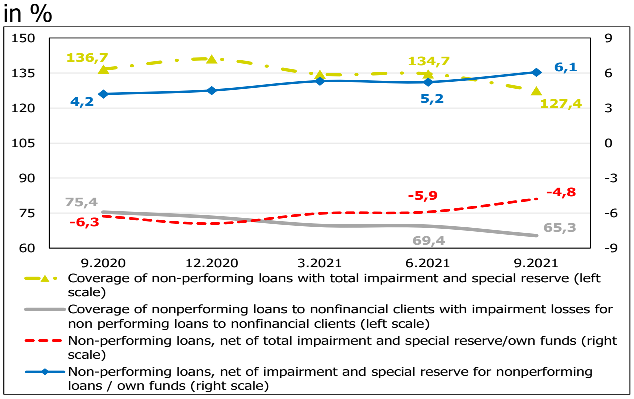
Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 10
Loans to non-financial entities, by risk categories
in percentages of the total loans



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

Chart 11
Coverage of non-performing loans with impairment
in %



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

until the third quarter of 2021, when it narrowed.

The negative effects of the possible full default on non-performing loans, i.e. the volume of unexpected losses on this ground, have a limited impact on the solvency of the banking system. Namely, a significant portion of the non-performing loans are impairment covered (69.4%), despite the decrease in the preceding quarter. Thus, the non-provisioned amount of non-performing loans is 6.1% of own funds of the banking system and even in case of its full default, the solvency of the system would not be jeopardized.

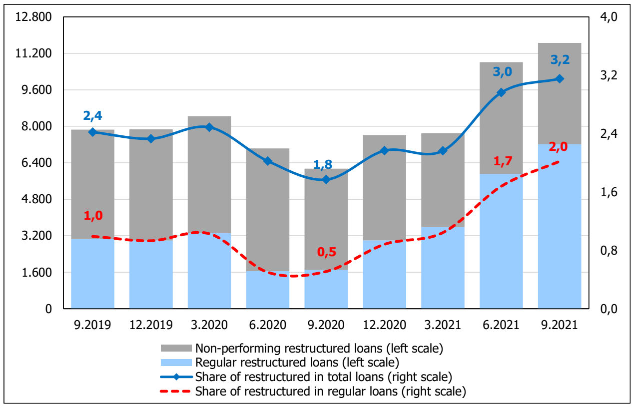
Restructured loans are less quality loans, because the restructuring is performed on claims of customers with deteriorated financial standing. If the restructuring does not fulfill the expected goals for adjusting the credit burden to the client's financial condition, these loans will be a source of new non-performing loans. Currently, the regular restructured loans **have a small share in the banks' total regular loans**, which is 2% on 30 September 2021. These loans show the potential growth of non-performing loans in a hypothetical simulation of complete restructuring failure.

Also, the accelerated growth of regular restructured loans in the last three quarters imposes careful monitoring of their quality, despite the small volume of these loans. Namely, in the third quarter of 2021, regular restructured loans increased by 21.9%, or Denar 1,297 million, while cumulatively, for the first nine months of 2021, these loans more than doubled (by 140.5%, or for Denar 4,211 million). The current growth of the regular loans in the restructured loans structure[12] becomes evident because for the second consecutive quarter the regular restructured

[12]The share of regular restructured loans as of 30.09.2021 was 27.8%, and their share in total restructured loans increased by about 34 percentage points in the period 01.10.2020-30.09.2021.

Chart 12 Restructured loans of non-financial entities

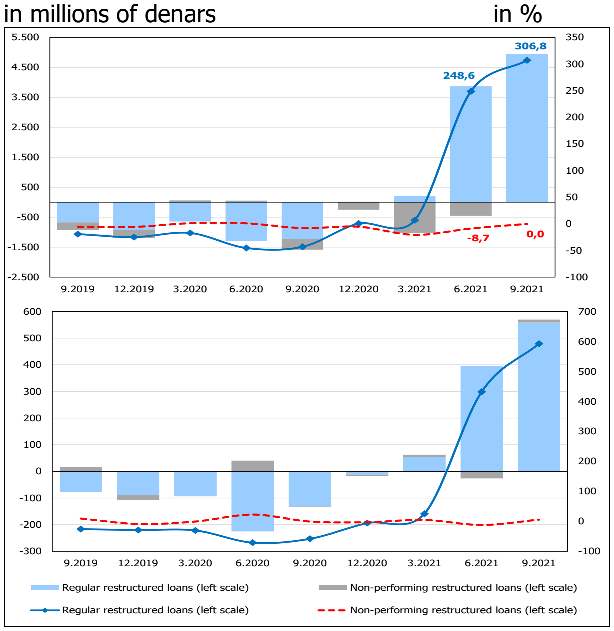
in millions of denars in %



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

Chart 13 Quarterly change of restructured loans, by individual sectors

in millions of denars in %



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

loans have a larger share (61.8% on 30.9.2021) in total restructured loans compared to non-performing restructured loans. The higher inherent risk of restructured loans is also perceived through their significantly higher average provisions (36.0%) than the average provisions of total loans (4.5%). Higher coverage is especially visible in regular restructured loans[13], while the coverage of non-performing restructured loans with allocated provisions is very similar to the coverage of total non-performing loans.

Almost entire restructured loan portfolio (about 93%) consists of legal entities. However, the restructurings intensified in 2021 in both sectors, where the cumulative nine-month growth of restructured regular loans amounted to 219.1% (or Denar 448 million) in households and 134.8% (Denar 3,763 million) in enterprises. Despite the high growth of regular restructured loans, due to their low initial amount, the share of restructured regular loans in the total regular loans is not high and on 30 September 2021 it was 3.9% and 0.3%, respectively for companies and households.

The reason for the intensified restructuring in 2021 mainly lies in corona measures pertaining to loans[14]. Namely, with the exhaustion of the possibility for new regulatory relief for the borrowers who are still facing pronounced financial difficulties, and after the expiration of the grace period, the banks started to restructure the liabilities of some of the clients.[15] The loans restructured due to COVID-19[16] during the first three quarters of 2021 occupy about 60% of the

[13] The coverage with impairment of regular restructured loans was 17.4%, compared to 2.3% for total regular loans.

[14] In most of the loans with eased credit conditions due to the pandemic, the grace period expired on 30 September 2021 and these loans have already been put in repayment. As of 30.06.2021, the grace period has not expired only for loans in the amount of Denar 555 million, or 0.2% 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.

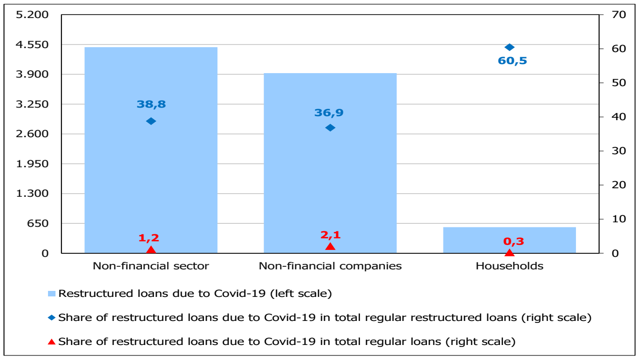
[15]As of 01.10.2020, each new change of the contractual terms due to deteriorated financial status of the borrower is treated as restructuring and applies the usual (prescribed) rules in restructuring, according to the regulation. Loans in which more than two changes in the contractual terms were applied in the period March-September 2021, due to the clients' deteriorated financial position, are treated as restructured.

[16]Corporate loans are predominant in the loans that are restructured due to corona crisis, with a share of 82.6%.

Chart 14

Restructured loans due to COVID-19 as of 30.09.2021, by sctor

in millions of denars in %

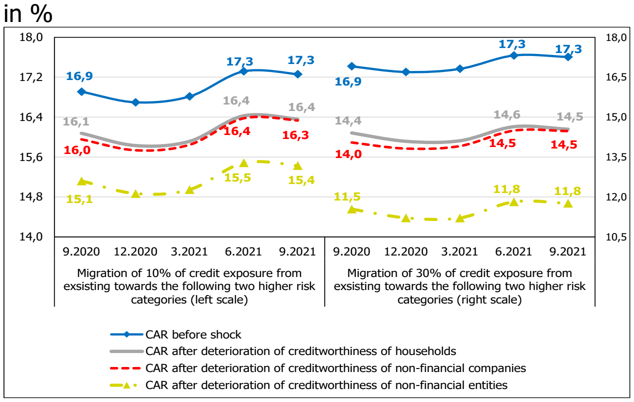


Source: National Bank's Credit Registry, based on data submitted by banks.

Chart 15

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.

growth of restructured loans in the same period and on 30.9.2021 participate with 20.9% in total restructured loans[17]. However, loans restructured due to the corona crisis account for only 0.7% of total loans.

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

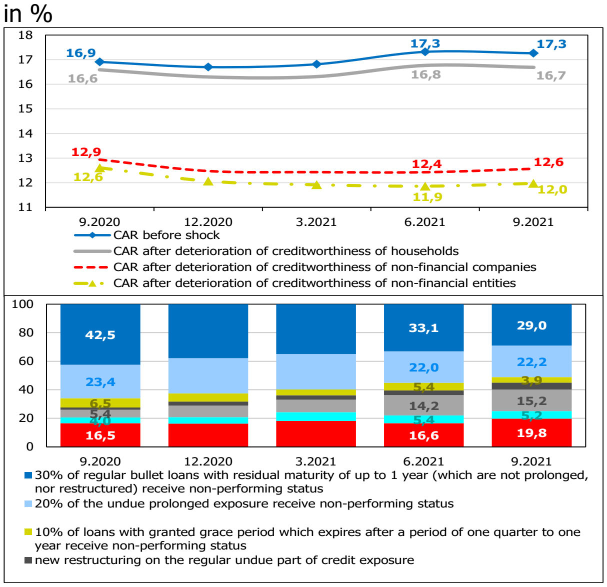
The results of stress testing confirm the resilience of the banking system to the simulated credit risk shocks. The capital adequacy ratio of the banking system does not go below 8% in individual hypothetical simulations. In case of the most extreme, but less possible simulation for a migration of 30% 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). By activity, the greatest negative impact on the capital adequacy ratio has the assumed deterioration of the quality of credit exposure in those activities where the total credit exposure is highest. According to individual credit products of households, the greatest effect on the capital adequacy ratio has the hypothetical deterioration of the consumer loans quality, as the most common credit product.

The stress test results 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 better results are due to the reduced level of concentration in the loan portfolio of the non-financial sector[18],

[17]Observed by individual sectors, loans that are restructured due to COVID-19 accounted for 48.9% and 18.7% of restructured household and corporate loans, respectively.

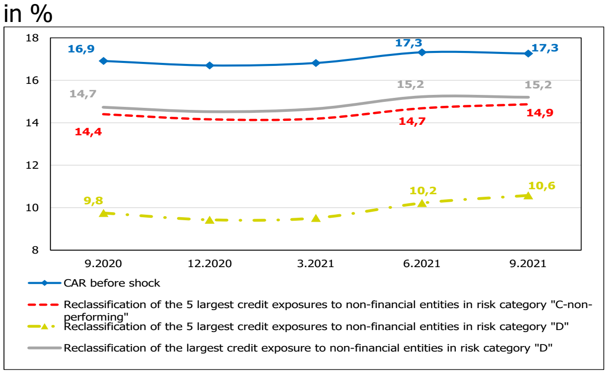
[18] On quarterly basis, the five and ten largest exposures to the non-financial sector decreased by 7.3% and 5.8%, respectively, while own funds dropped slightly by 0.1%. This contributed to reducing the share of the five and ten largest exposures to the non-financial sector in own funds to 44.0% and 69.7%, respectively on 30 September2021 (compared to the shares of 47.4% and 73.9%, respectively on 30.06.2021).

Chart 16
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.

Chart 17
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.

with almost unchanged capital adequacy before the implementation of the simulations.

The banking system resilience is also examined by conducting extreme simulation, which combines seven hypothetical shocks of worsening of the credit portfolio quality to the non-financial sector[19]. Even in case of this extreme simulation, the capital adequacy of the banking system does not come below the prescribed minimum. Upon this simulation, the capital adequacy ratio reduces by 5.3 percentage points 12.0%, which is a better result compared to the end of the previous quarter (5.5 percentage points and 11.9%, respectively). The largest effect on the capital adequacy ratio has the assumed deterioration of the quality of balloon loans, contributing to about 30% of the total reduction of the capital adequacy in case of combined shock. In addition, the impact of the hypothetical deterioration of the quality of extended loans is significant (accounting for 22.2% of the total reduction of the capital adequacy ratio of the banking system), and the assumed total default of non-performing loans to the non-financial sector increased (19.8% of the total decrease in capital adequacy in case of combined shock). Significant contribution is made by the regular restructured loans, as well make (15.2% of the total reduction of the capital adequacy as of 30 September 2021).

[19] The seven hypothetical shocks are the following: 1. full non-collection of the non-performing loans; 2. total due loans receive non-performing status; 3. the total regular undue restructured exposure acquires a non-functional status; 4. the banks carry out new restructurings on the regular undue part of the credit exposure, which in terms of volume correspond to the amount of the restructured exposures that have received non-performing status of 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.

2. Currency risk

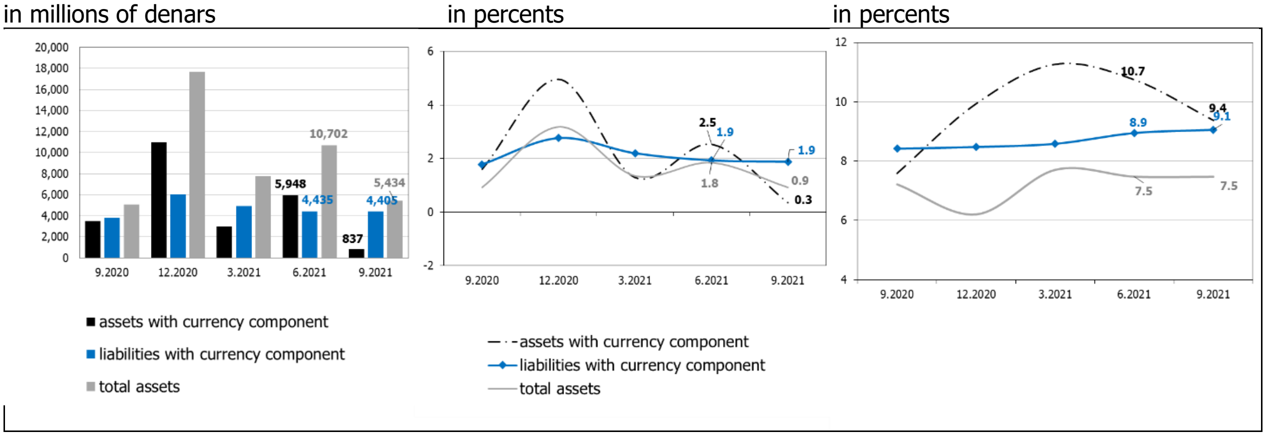
In the third quarter of 2021, the direct exposure of the banking system to currency risk lowered, amid a decrease in the open currency position, i.e. narrowing of the gap between assets and liabilities with currency component. The narrowing of the gap results from the faster growth of foreign currency liabilities, primarily based on current accounts of legal entities and natural persons, amid slower growth of assets with currency component, mostly due to the reduced placements of banks in Eurobonds.

The share of loans with currency component did not change significantly, but remains relatively high. This indirectly exposes the banks to the currency risk their clients are exposed to, which woul possibly 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 18

Quarterly (left and middle) and annual (right) growth of total assets and the assets and liabilities with currency component*

in millions of denars | in percents | in percents

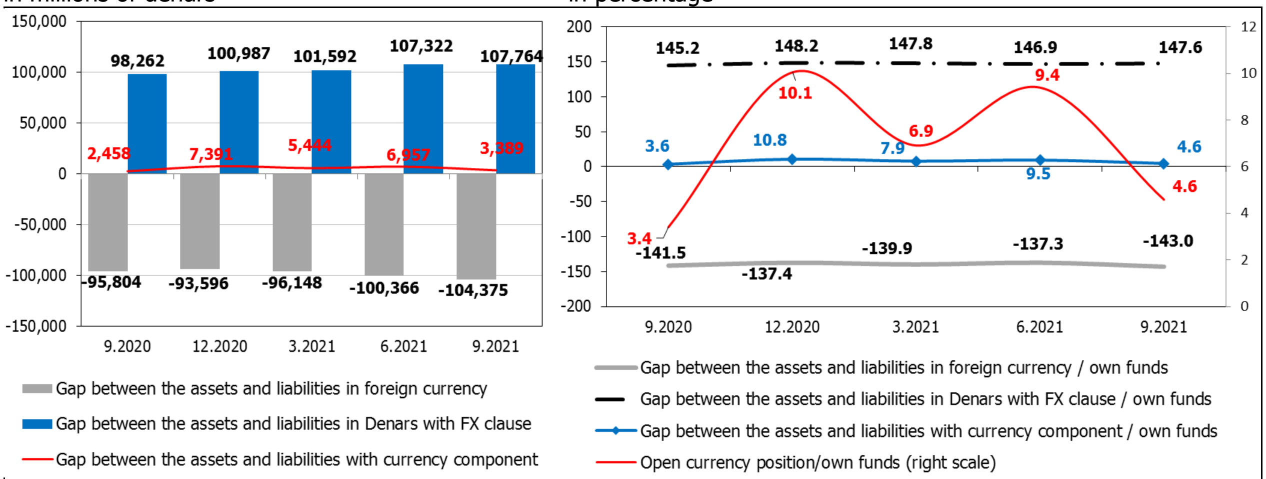


Source: National Bank, i.e. the OCP Report based on data submitted by banks.

* 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 30.9.2021, the gap between assets and liabilities with a currency component almost halved (a decrease of 51.3%, or by Denar 3,568 million compared to 30.06.2021. This gap narrowing arises from the larger growth in the liabilities (of 1.9%, or Denar 4,405 million)[20] relative to the increase in the assets with currency component (of 0.3%, or by Denar 837 million)[21]. The severe gap narrowing between assets and liabilities with currency component, with minimal decrease in own funds (0.1%), conditioned a significant quarterly decrease in the share of assets and liabilities with currency component in own funds by 4.9 percentage points, to the level of 4.6%. The open currency position also occupies 4.6% of the own funds of the banking system[22] and is far below the calculated ten-year average of this share.

Chart 19
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 percentage



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

As a result of these developments, the share of liabilities with currency component in the banks' total liabilities increased (by 0.4 percentage points), while the share of assets with currency component in total assets registered a decrease of 0.6 percentage points.

[20] The growth of liabilities with currency component was mostly conditioned by the growth of liabilities based on current accounts in foreign currency, by Denar 5,438 million. In addition, the growth of liabilities based on foreign currency credits (by Denar 917 million), as well as the growth of the position of "other unmentioned balance sheet liabilities" by Denar 406 million had a certain impact on the increase of liabilities with currency component. On the other hand, deposits of non-residents in foreign currency decreased significantly by Denar 2,645 million.

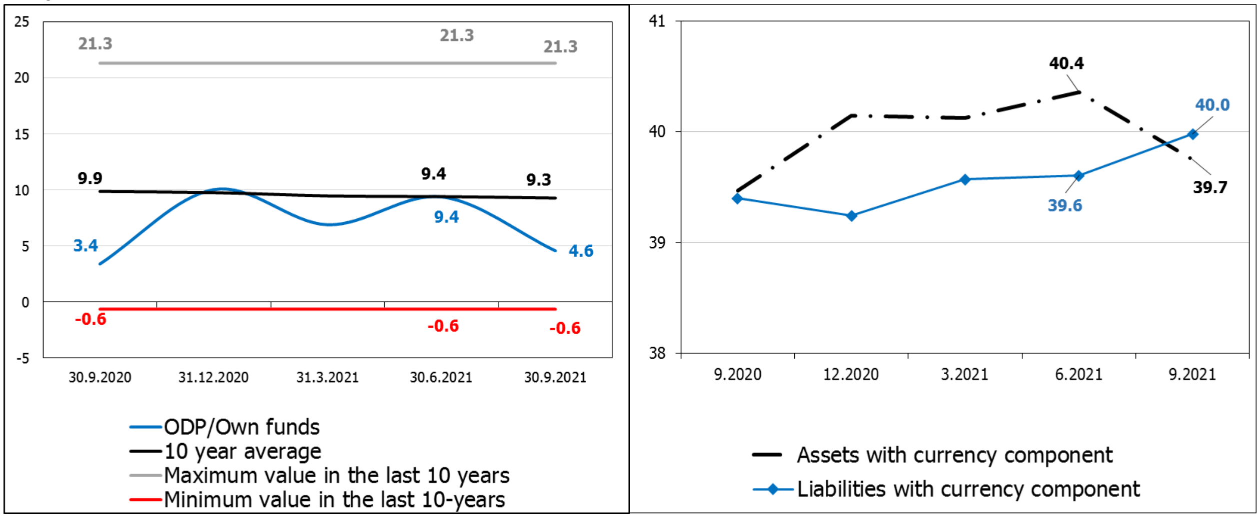
[21] Currency component assets increased mostly due to the growth of current accounts in foreign currency in foreign banks, mandatory foreign currency deposits with the NBRNM, as well as current accounts in foreign currency with the NBRSM, which increased by Denar 1,211, 591 and 539 million, respectively. In contrast, investments in Eurobonds decreased by Denar 2,935 million, given the maturity of the Eurobond issued in 2014, whose maturity was seven years.

[22] The gap between assets and liabilities with currency component is the difference between 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.

Chart 20

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.

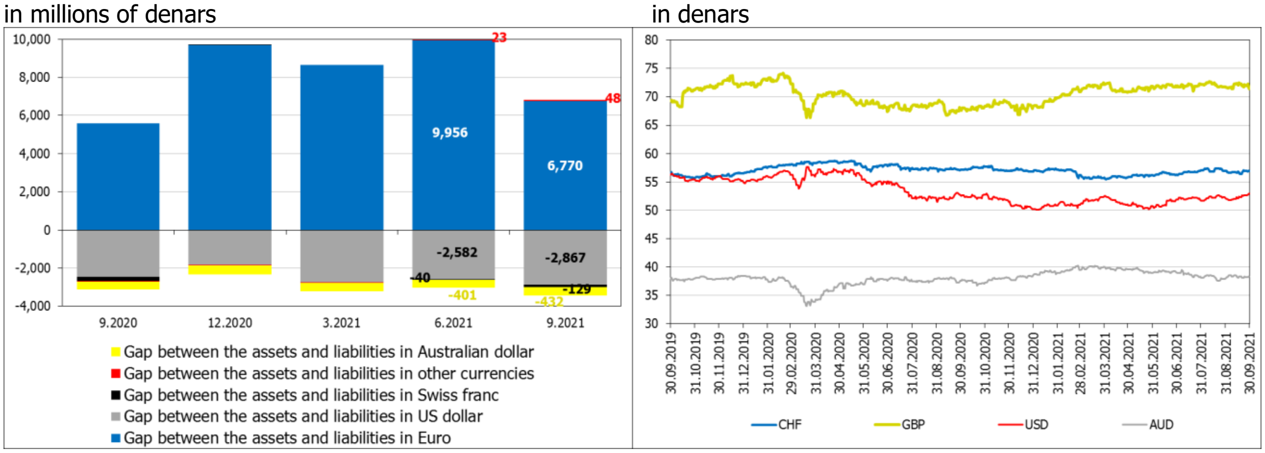
*Within the assets, claims are shown on a net basis i.e. adjusted for the impairment. The analysis does not include DBNM AD Skopje.

Chart 21

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 decrease in the gap between assets and liabilities with currency component is due to the narrowing of the positive gap between assets and liabilities in euros and euro clause (by 3,186 million of Denars), while the contribution of other currencies is much lower. The exposure of the banking system to currency risk is limited due to the 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 arizing from the operations of the domestic banking system, due to their low share in the banks' balance sheets.

Table 3

Currency structure of assets and liabilities with currency component

in %

Currency	30.6.2021		30.9.2021	
	Assets	Liabilities	Assets	Liabilities
Euro	90.1	88.5	90.2	88.6
US dollar	6.6	7.9	6.4	7.7
Swiss franc	1.3	1.4	1.3	1.4
Australian Dollar	0.6	0.8	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 4

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%	2	5	7	5	8	3	6	2	11	1	7
from 5% to 10%	3										2
from 10% to 20%	1										2
from 20% to 30%											
over 30%	1										1

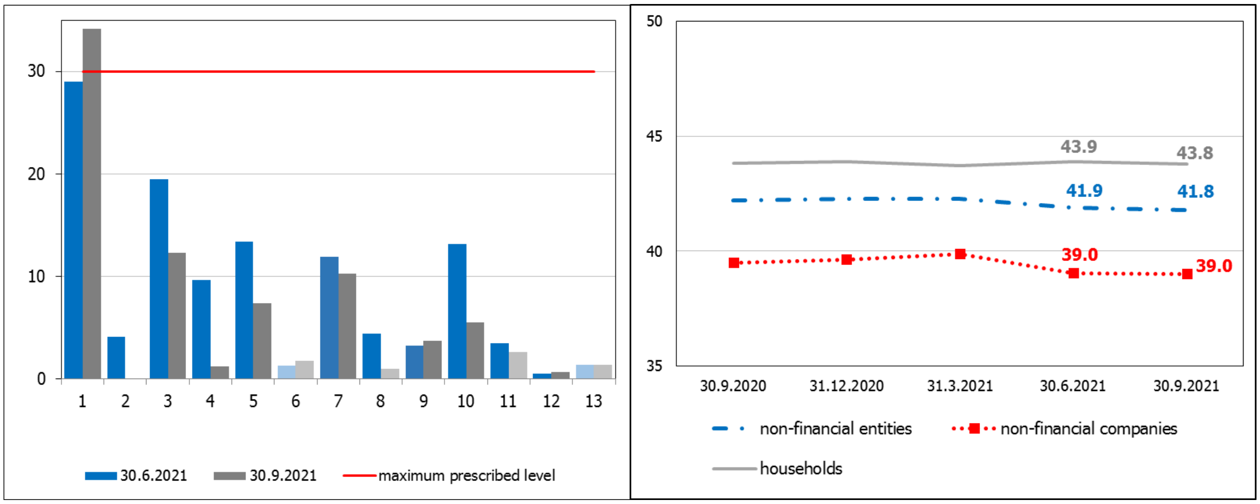
Source: National Bank, based on data submitted by banks.

The share of loans with currency component registers no significant changes. Given the fact that more than 99% of loans with currency component are denominated in euros or are in denars with a Euroclause, the danger of materialization of indirect currency risk is also low. On 30.9.2021, the share of currency component loans in total loans to the non-financial sector decreased by 0.1 percentage point, mainly due to the reduced share of these loans loans with households. The share of loans with currency component in the total loans of non-financial corporations is unchanged.

Chart 22

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

in % in %



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.

The prescribed limit for the open currency position is 30% in relation to own funds. Banks mainly maintain their currency positions within this limit. However, if it exceeds the prescribed limit, in accordance with the regulation, the bank is obliged to submit a written explanation to the National Bank for the reasons that led to the exceedance, as well as to state the measures it will take to reduce it within the prescribed limit.[23]. At the end of the third quarter, eight banks had a long foreign currency position, as opposed to four banks that recorded a short foreign currency position.

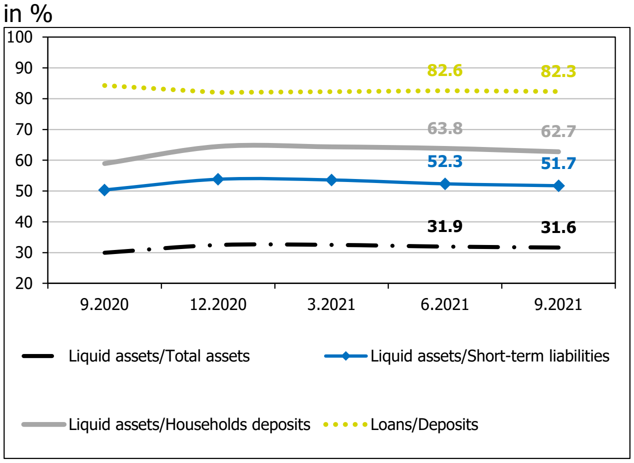
[23] On 30 September 2021, one bank exceeded the prescribed limit of 30% for the ratio of aggregate foreign currency position and own funds by 4.1 percentage points, and complied with the limit on 13 October 2021.

3. Liquidity risk

In the third quarter of 2021, in conditions of prolonged uncertainty related to the health crisis and the new pandemic wave, the liquid assets of the banking system remained almost unchanged. However, there were shifts within the liquid assets, whereby the placements in government bonds decreased, the first quarterly downturn in a longer period, with the denar funds also registering a decline. On the other hand, the deposits with the National Bank and the funds on the accounts with foreign banks increased, due to which the total liquid assets of the banking system remained almost unchanged. As a result, the indicators for liquidity monitoring and evaluation remained stable and on satisfactory level. From the aspect of currency, in this quarter the deterioration of the foreign exchange liquidity indicators is more evident, which corresponds to the decline in the foreign currency liquid assets, which fully contributed to the decrease in the total liquid assets. Cumulative gaps between agreed cash inflows and outflows of up to one year are negative, but banks expect a relatively high stability of the deposits, as they are the main source for financing their activities. The results of the stress tests indicate satisfactory resilience of the banking system to the presumed extreme, individual and combined, liquidity outflows.

Chart 23 Liquidity indicators of the banking system

in %



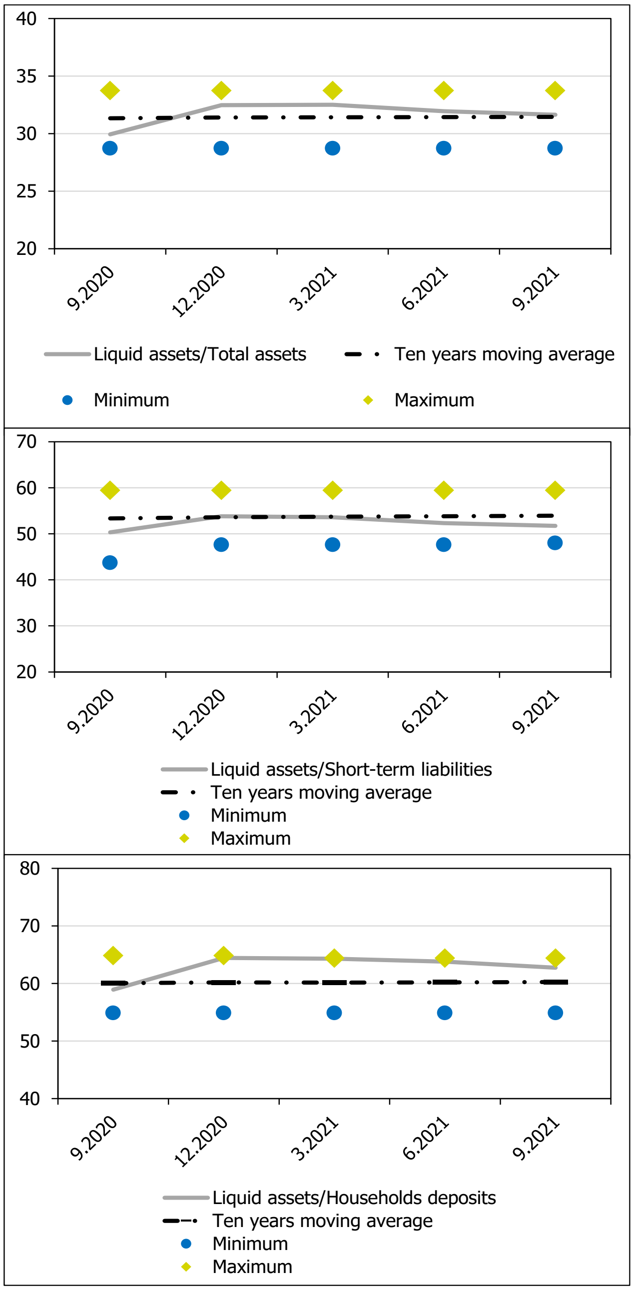
Source: National Bank, based on data submitted by banks.
Note: The calculation of liquidity indicators at the level of the banking system does not include resident interbank assets and liabilities.

3.1. Liquidity indicators

In the third quarter of 2021, in conditions of minor decrease in the liquid assets of the banking system, the liquidity indicators registered slight deterioration. However, they still indicate a proper liquidity risk management by banks, which has been proved 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%[24], respectively). The loan to deposit ratio at a level of the banking system is also stable and is around 80%. Finally, the liquidity coverage ratio of the banking system equals 277.7%, which is by almost three times higher level than the

[24] Analyzed by bank, as of 30.9.2021, the share of liquid in total assets ranges between 18.8% and 53.3%, with a median of 25.3% (September 2020: between 17.1% and 46.1%). The coverage of short-term liabilities with liquid assets is between 36.5% and 70%, with a median of 49.1% (September 2020: between 37.1% and 77.4%), and the coverage of household deposits with liquid assets

Chart 24
Liquid assets / total assets (top), liquid assets / short-term liabilities (middle) and liquid assets / household deposits (bottom)
in %



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

regulatory minimum (100%[25]), thus proving the sufficient amount of liquidity available to the Macedonian banking system. Analyzed by bank, the liquidity coverage ratios range from 134.5% to 1,124.2% (with a median of 329.3%), which additionally indicates the acceptable liquidity risk frameworks the banks are exposed to and stable liquidity management on their part.

According to the currency characteristics of liquid assets and liabilities, in the third quarter of 2021, the foreign currency liquidity indicators registered slightly more pronounced downward movement compared to the denar liquidity indicators[26], having in mind the quarterly drop in the foreign liquid assets. At the same time, the increase in foreign currency deposits contributed to lower indicators for covering deposits with foreign currency liquidity. The 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 total liquid assets of banks.

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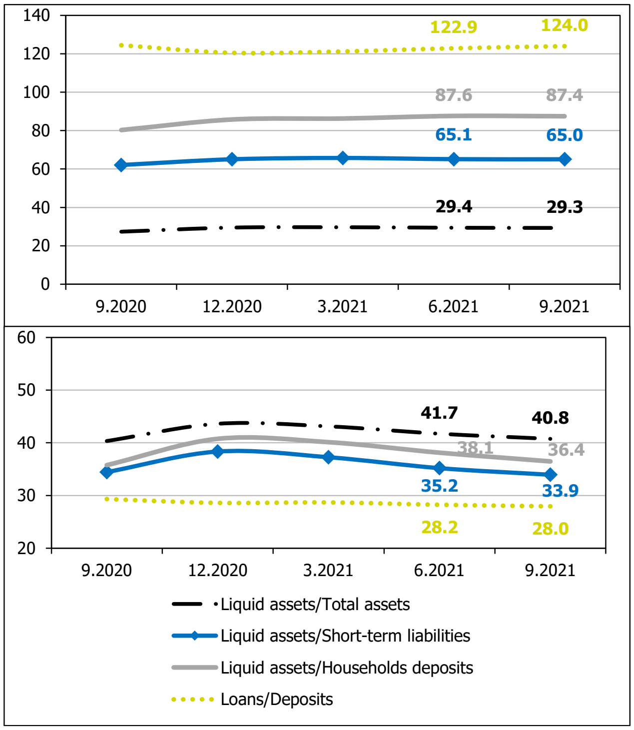
is between 38% and 86.3%, with a median of 63.1% (September 2020: between 35.4% and 91.5%). The Development Bank of North Macedonia AD Skopje is excluded from this analysis.

[25] In addition to the aggregate basis, banks are required to determine and monitor the liquidity coverage ratio by each significant currency for the bank (any currency whose share in the total balance sheet liabilities of the bank is at least 5%). The prescribed minimum level of 100% refers only to the total liquidity coverage ratio and not to the rate for each significant currency. As of 30 September 2021, the liquidity coverage ratios for the two significant currencies, euro and denar, are 103% and 300.8%, respectively.

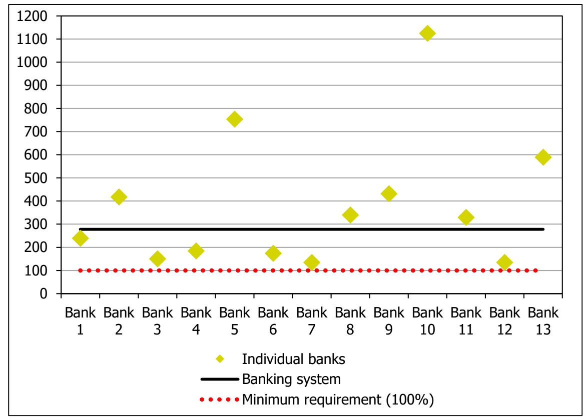
[26] Claims and liabilities with FX clause are considered denar claims and liabilities, since their cash flow is in denars.

Chart 25
Banking system liquidity indicators according to currency structure, denar (top) and FX (bottom)
in %



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

Chart 32
Liquidity coverage ratio, as of 30 September 2021
in %



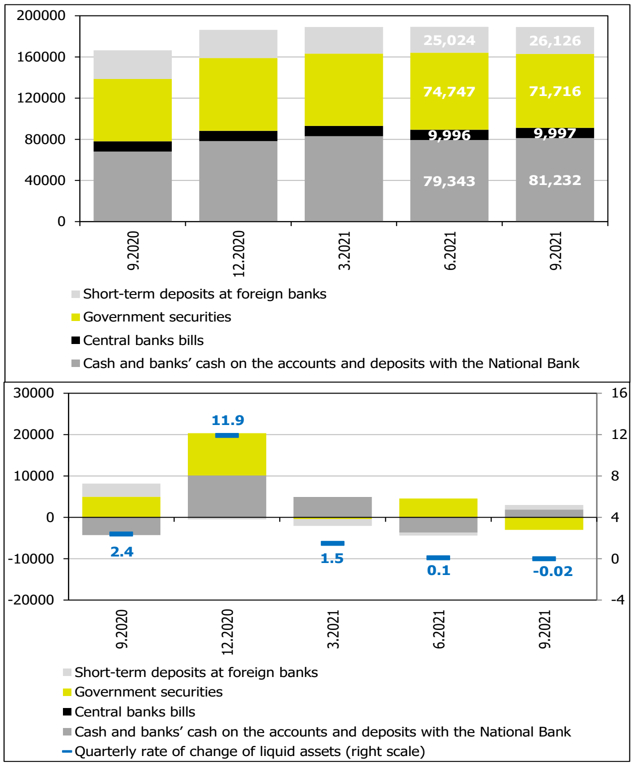
Source: National Bank, based on data submitted by banks.

3.2. Dynamics and composition of liquid assets

At the end of the third quarter of 2021, liquid assets[27] of the banking system remained almost unchanged compared to the preceding quarter (a decrease of 0.02%, or by Denar 40 million). On the other hand, on annual basis, a solid growth in the liquid assets of 13.6% (or by Denar 22.640 million) is registered. From the aspect of individual financial instruments that make up the liquid assets, quarterly decrease, a first time after a long period, was registered in the bank placements in government bonds (by Denar

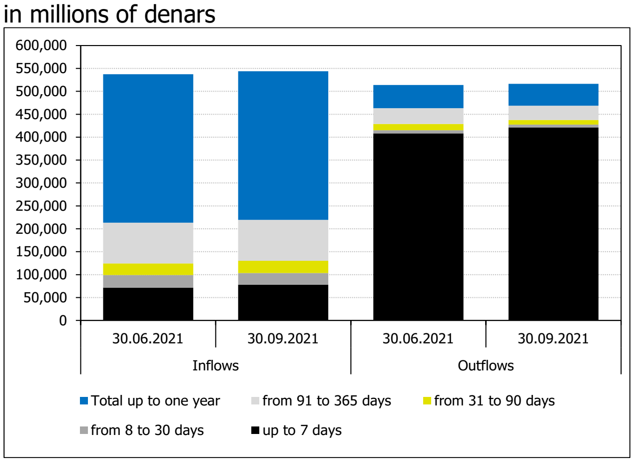
[27] The liquid assets encompass: 1) assets and claims on the National Bank, which include cash, assets on the accounts of banks with the National Bank, deposit facility with the National Bank and CB bills; 2) short-term deposits with foreign banks, including the assets of the banks on their correspondent 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 26
Liquid assets, structure (top) and growth (bottom)
in millions of denars and in %



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

Chart 27
Inflows / outflow maturity structure based on on-balance sheet assets and liabilities
in millions of denars



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

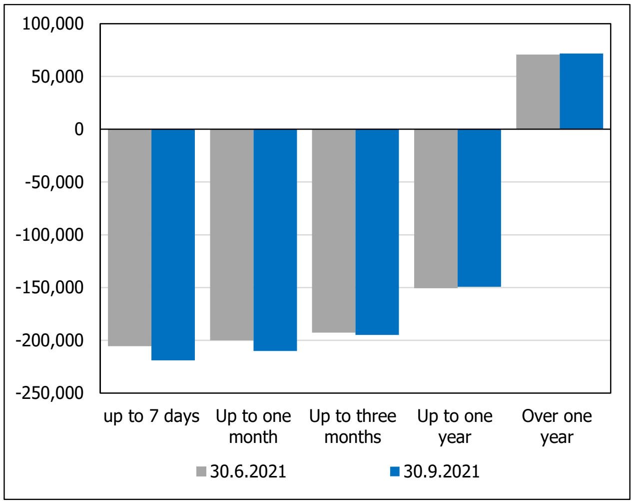
3,687 million, or by 6.1%%)[28]. At the same time, the banks' denar funds on the National Bank's accounts decreased by Denar 1,405 million, or by 3.1%). In contrast, with the exception of CB bills placements, which remained almost unchanged, the other financial instruments that make up liquid assets increased on a quarterly basis. The highest quarterly increase, of Denar 2,210 million, or 8.2%, was registered with the banks' placements in overnight deposit facilities with the National Bank, with more significant growth being registered in banks' placements in short-term deposits with foreign banks (by Denar 1,102 million, or by 4.4%). Smaller increase was registered also with the banks' placements in treasury bills (by Denar 658 million, 4.9%).

3.3. Maturity structure of the contracted inflows and outflows of bank's assets and liabilities

As of 30 September 2021, the agreed bank inflows distributed in the period over one year and the agreed outflows of banks distributed in the period of seven days prevail in the banks' inflow / outflow maturity structure. 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 liabilities outflows and without a determined 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 calculation of the cash inflow / outflow cumulative gaps, the cumulative amount of

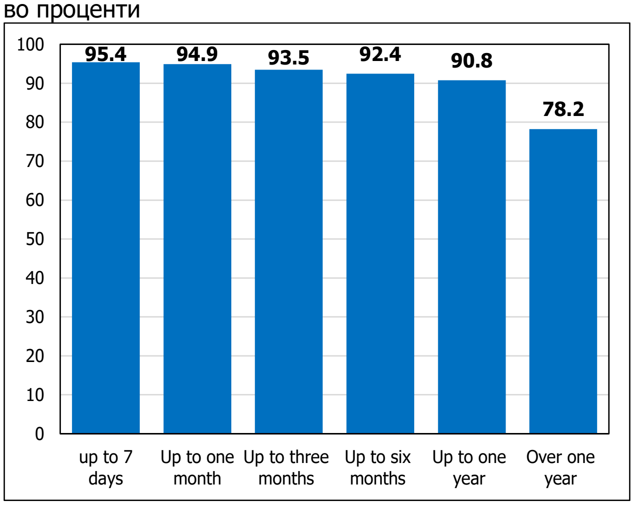
[28] The decrease in the government bond placements arises from the reduced investments in Macedonian Eurobonds, given the maturity of the Eurobond issued in 2014, the maturity of which equaled 7 years.

Chart 28
Cumulative gap between agreed inflows and outflows, including the cumulative amount of unweighted assets
in millions of denars



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

Chart 29
Expected stability of deposits, according to the residual maturity, as of 30.9.2021
во проценти



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

the so-called unweighted bank assets[29] are included, then these gaps are slightly smaller, but still significant (cumulative gap up to 7 days, including the amount of unweighted bank assets is 36.3% of the assets of the banking system, while the cumulative gap up to 1 year accounts for 24.7% of total assets).

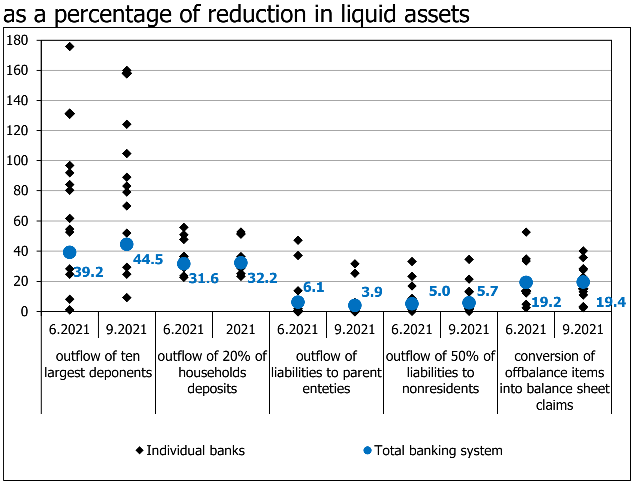
Also in the third quarter of 2021, the banks expect to preserve the deposits stability, as they are the main source for financing their activities. Namely, at the end of the third quarter of 2021, according to the depositors' behavior, the banks expect that in the next 12 months, the depositors will fail to realize 90.8% of contractual outflows for deposit-based liabilities. The high percentage of stable deposits was preserved even in conditions of enduring risks and uncertainty related to the COVID-19 pandemic.

3.4. Stress-simulations for liquidity shocks

On 30 September 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 shown through the results of all individual liquidity shocks simulations, with the liquid assets being fully used (105.7% on 30 September 2021) only in case of significantly extreme simulation of liquidity shock, which covers combined outflows[30] of funds from banks on

[29] 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 when determine net cash outflows (more precisely, as cash inflows) if they are included in high-quality liquid assets.
[30] 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

Chart 30
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.

several bases. Considering the extremity of assumption, for the purpose of this simulation, the usual coverage of liquid assets is extended with other financial instruments[31] 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, 91.4% of the available liquid assets (according to the expanded definition) will 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 liqudity shocks, the high liquidity the Macedonian banks have at their disposal enables settlement of all assumed extreme liquidity outflows. The sharpest drop in liquid assets occurs in case of an outflow of the deposits of the ten largest depositors[32], but the importance of this simulation for individual banks is different, having in mind the differences in the degree of deposits concentration. To the contrary, simulated materialization of reputation risk and the loss of confidence of the population in the banks presented through outflow of 20% of household deposits shows a significantly bigger 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[33], the

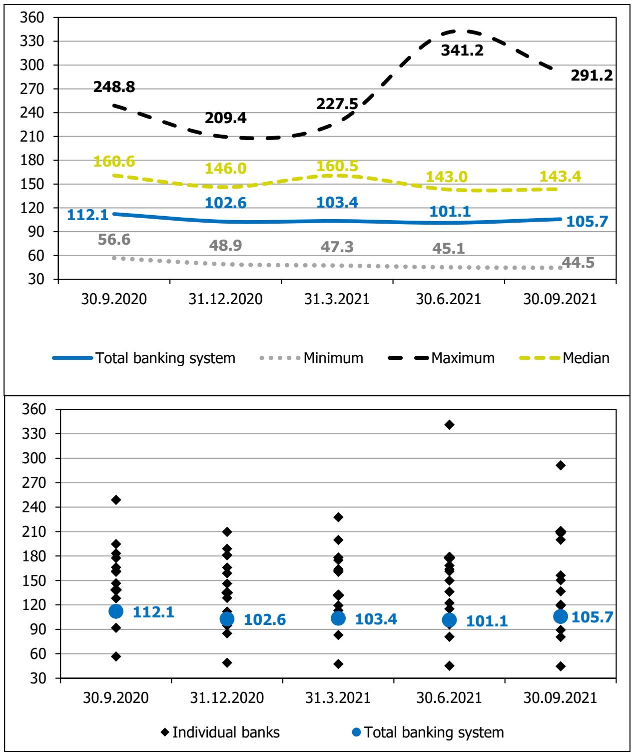
regulations for calculating capital adequacy, their repayment is regulated), 50% of the liabilities to non-residents (excluding liabilities to non-resident parent entities of banks which are already covered by one of the previous simulations) and conversion of certain off-balance sheet liabilities of 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.

[31] In addition to financial instruments that comprise liquid assets, the following financial instruments are also included: assets in the reserve 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 reduction of 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.

[32] 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 refer to the deposits of the ten largest depositors, instead of the previous scope of the twenty largest depositors (before 30.6.2021).

[33] 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) to on-balance sheet claims.

Chart 31
Reduction of liquid assets after the simulation for combined liquidity shocks (after all shocks), total banking system (top) and by bank (bottom)
in %



Source: National Bank, based on data submitted by banks.
Note: According to the new regulation, the monitoring of the concentration of the sources of funds according to the largest depositors, for 30.6.2021 and 30.9.2021 is performed in accordance with the data for the concentration of the 10 largest depositors. According to the previous regulation, for the previous dates, the available data for the largest 20 depositors are used.

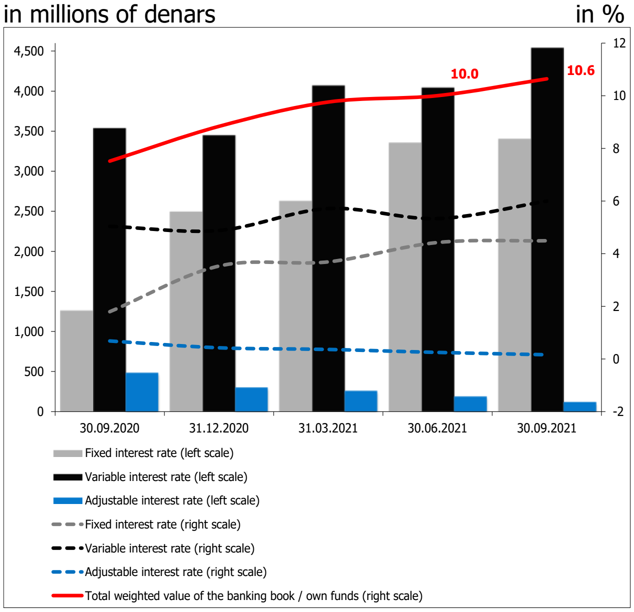
banks would spend about 20% of their liquid assets, which although is less compared to the simulations of deposit outflow[34], yet this assumed reduction in liquid assets can be considered significant. The small share of liabilities to non-residents, as well as to parent entities in the structure of the total sources of funding for banks, cause moderate impact of the associated shocks on the overall result of this simulation.

[34] During a simulation of outflow of the deposits of the ten largest depositors, the liquid assets of the banking system are reduced by 44.5%, while in case of assumed outflow of 20% of the household deposits, liquid assets are reduced by 32.2%.

4. Interest rate risk

In the third quarter of 2021, the exposure of the banking system to the interest rate risk increased compared to 30.6.2021, mostly due to the expansion of the positive gap in the positions with variable interest rate. The total (unweighted) gap is positive, due to which, on an aggregate basis, the banking system is exposed to a risk of interest rate reduction. On the other hand, the joint share of the loans with adjustable and variable interest rates in the total loans remains substantial and is increasing, making the banks e exposed to indirect credit risk resulting from the exposure of their clients to the risk of interest rate growth.

Chart 33
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 value of the banking book increased by Denar 476 million, or by 6.3%, and its share in own funds increased by 0.6 percentage points, to the level of 10.6%. At the same time, the level of this ratio, used to measure the exposure of the banking system to the interest rate risk, is equal to the historical maximum. Analyzing by bank, this ratio ranges from 0.3% to 18.5%, which is below 20.0%[35]. Analyzing the interest rate type, the quarterly growth of the total weighted value of the banking book almost entirely results from the increase in the weighted value of the portfolio with variable interest rate (Denar 497 million or 12.3%). The weighted value of the portfolio with fixed interest rate also increased slightly by Denar 47 million, or by 1.4%, while the weighted value of the portfolio with adjustable interest rate decreased (by Denar 67 million or 36%). The quarterly increase in the weighted value of the portfolio with variable interest rate is due to the widening of the gap between interest sensitive assets and liabilities with this type of interest rates, followed by simultaneous displacement of the gap from blocks with shorter to longer maturity until the next interest rate revaluation (mostly from up to one month, to three to six months). Analyzed by activity, such movements in the weighted value of the portfolio with variable interest rate are mostly due to the changes in loan placements with this type of interest rate.

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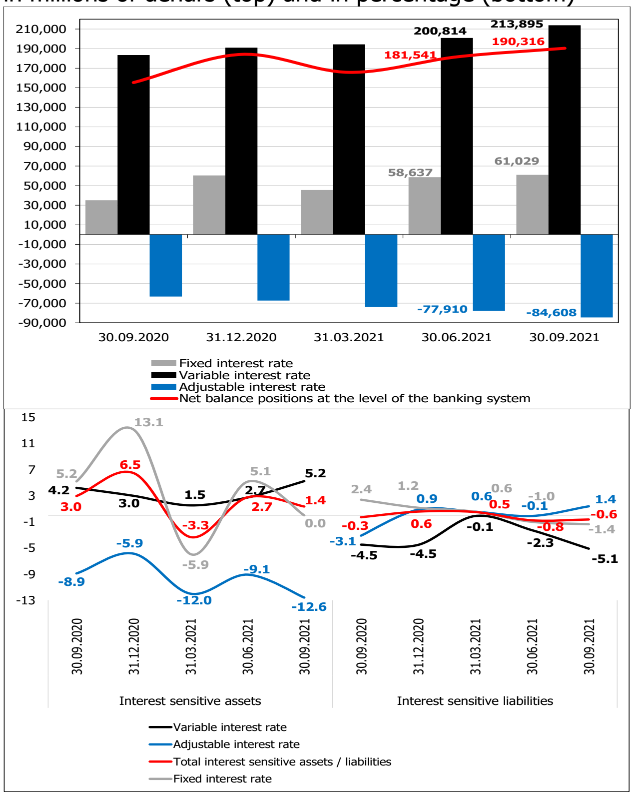
[35] According to the regulation, when total weighted value of the banking book to bank's own funds ratio exceeds 20%, the bank is required to propose measures to reduce this ratio, and the National Bank may also require allocation of adequate amount of capital for covering the interest rate risk in the banking book.

Chart 34

Interest-sensitive assets and liabilities by type of interest rate, gap (top) and quarterly growth (bottom)

in millions of denars (top) and in percentage (bottom)



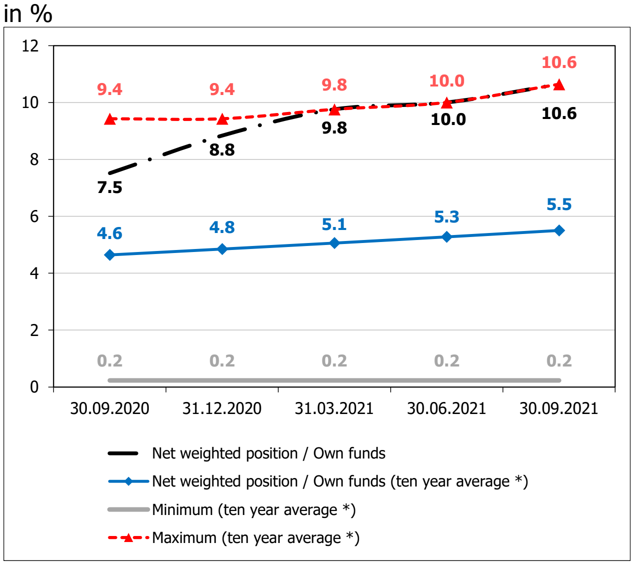
Source: National Bank, based on data submitted by banks.

Both the weighted and the total (non-weighted) gap between interest-sensitive assets and liabilities registered quarterly growth (of 4.8% or Denar 8,775 million), with the loans with variable interest rate acting as growth generator, and with some contribution also of the increase in the correspondent accounts in foreign banks. Widening of Denar 2,391 million, or 4.1%, was also registered in the positive gap between the positions with fixed interest rates, mostly due to the reduction of liabilities based on time deposits with this type of interest rate. The further reduction in the use of adjustable interest rates on loans, given simultaneous growth of demand liabilities with this type of interest rate, led to widened negative gap between assets and liabilities with adjustable interest rate (by Denar 6,698 million, or by 8.6%).

Chart 35

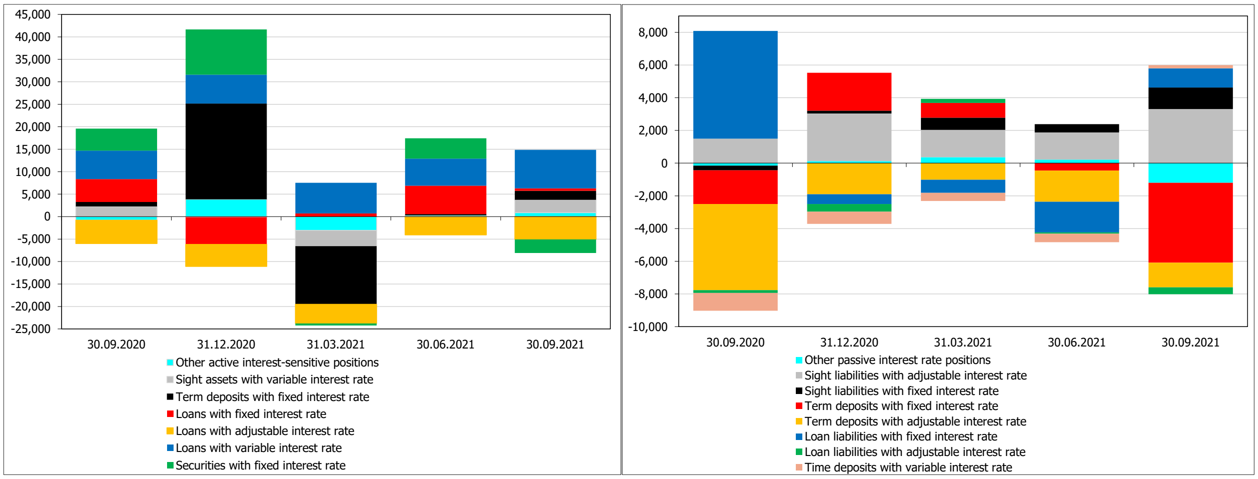
Net weighted position / own funds*

in %



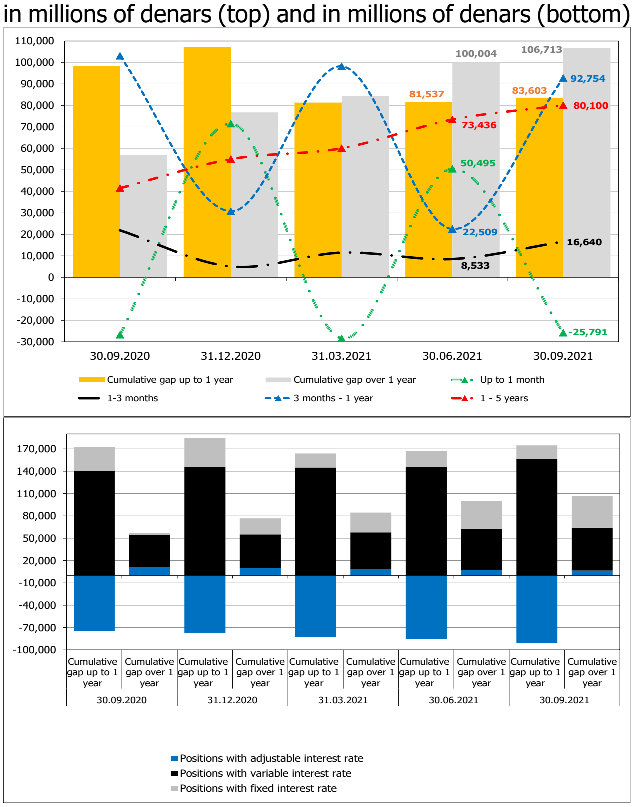
Source: National Bank, based on data submitted by banks.

Chart 36
Quarterly changes of the interest sensitive assets (left) and liabilities (right), by type of instrument and type of interest rate
in millions of denars | in millions of denars



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

Chart 37 Asset-liability gap, by period until next interest rate revaluation (left) and gap structure by interest rate type (right)
in millions of denars (top) and in millions of denars (bottom)

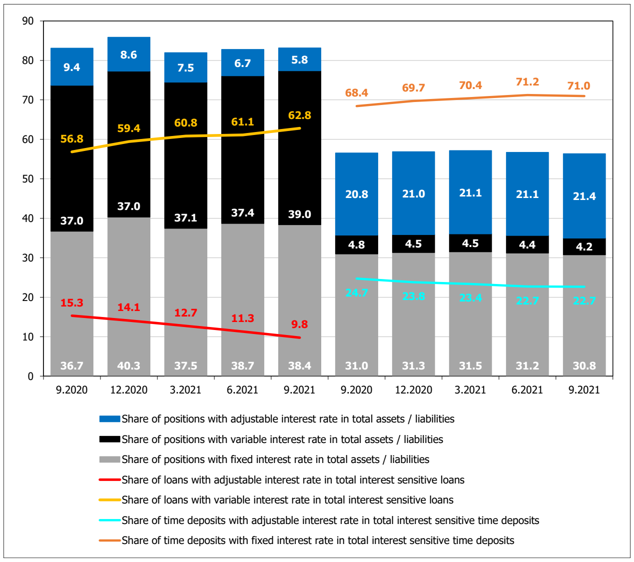


Source: National Bank, based on data submitted by banks.

Analyzed by the period until the next interest rates revaluation, the widening of the total gap between interest sensitive assets and liabilities arises mostly from the gap widening between interest sensitive positions with variable interest rate in the block from three to six months. Specifically, on a quarterly basis, there is a larger displacement of the gaps with variable interest rate from the maturity block up to one month to the maturity block from three to six months. In addition, gaps in the segments from one to three months registered larger quarterly increase (influenced by the growth of placements in loans with adjustable interest rate) and from one to two years (due to the increase in placements in debt securities with fixed interest rate in this maturity segment).

The indirect exposure to the risk of increase in interest rates as a result of the presence of loans with adjustable and variable interest rates remains significant, and registers minor increase. As of 30 September 2021, the cumulative share of these loans in the total loans is 72.6% (which is more by 0.2 percentage points compared to 30 June 2021), where 62.8% of

Chart 38 Assets and liabilities structure, by type of interest rate
in %



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

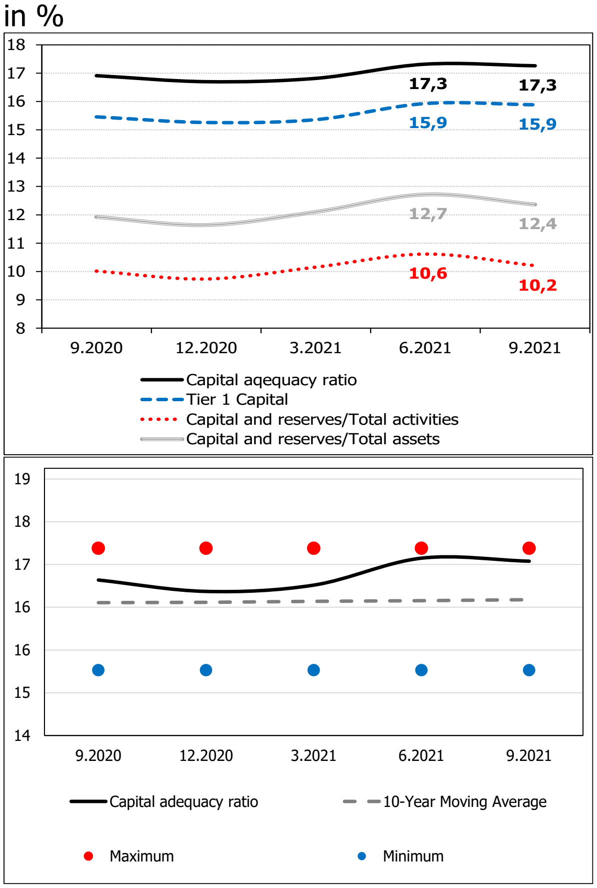
the total loans have variable interest rate, while only 9.8% have an adjustable interest rate. Due to the high joint share of these loans in the total loans, banks are exposed to indirect credit risk arising from their clients' exposure to increasing interest rate risk.

For more details about the structure of interest-sensitive items of the banks see Annexes to this Report.

5. Insolvency risk

Banking system solvency is stable and on satisfactory level also in the third quarter of 2021. In comparison with the second quarter of 2021, the capital adequacy ratio remained unchnaaged and equaled 17.3%, given minimal increase in the bank activities (mainly credit risk weighted assets) and slight decline in the own funds. Aggregately, the banking system has "free" capital exceeding the regulatory and supervisory minimum, whose share equals 10% of the total own funds. Almost half (43.1%) 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, when they can be used for coping with various challenges and with different intensity. The results of stress testing show satisfactory resilience of the banking system to the simulated shocks.

Chart 39
Solvency indicators (top) and selected statistical measures for the capital adequacy ratio (bottom)
in %

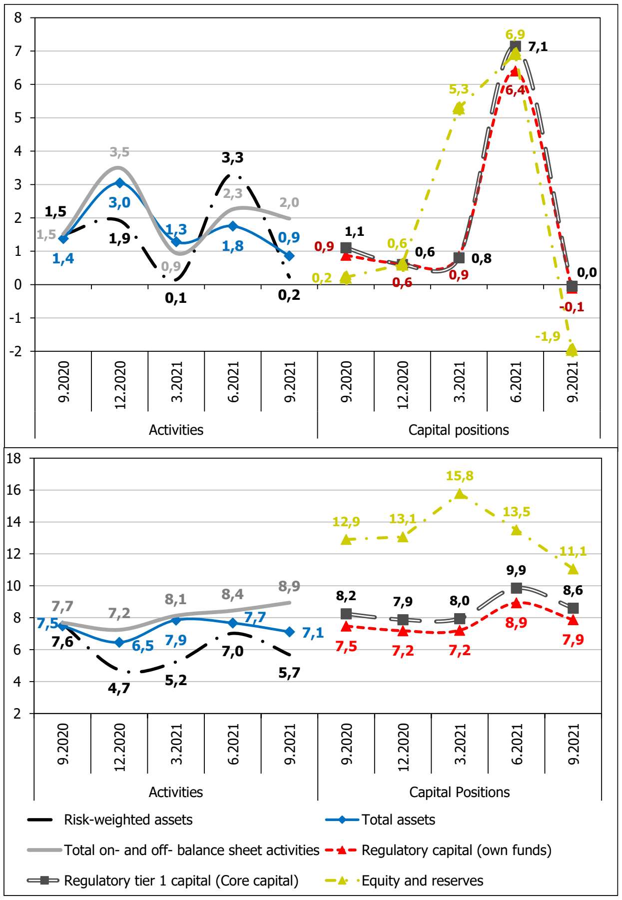


Source: National Bank, based on data submitted by banks.

5.1. Solvency indicators and capitalization of the banking system*

More than twice the level of solvency of the banking sector in relation to the legal minimum is a basic indicator of the appropriate resilience and readiness of banks to deal with risks, which is especially important in conditions of increased uncertainty due to the pandemic and the prospects for its ending. By bank, the capital adequacy ratio on 30.9.2021 exceeds 15% in all banks, which is far higher than the regulatory minimum rate of 8%. At the end of the third quarter of 2021, the solvency indicators remained unchanged, while the indicators of the level of capitalization of the banking system registered a minimal deterioration. Such movements of the indicators are due to the corresponding quarterly changes of the individual components of these indicators. Thus, the own funds, the Tier I capital and the capital and reserves registered a decrease on a quarterly basis of 0.1%, 0.05% and 1.9%, respectively, given the increase in the on-balance sheet assets, the risk weighted assets and the total (balance sheet and off-balance sheet) bank activities, which equaled 0.9%, 0.2% and 2.0%, respectively. The slightly larger quarterly fall in capital and reserves of the

Chart 40
Growth of components of solvency indicators, quarterly (top) and annual (bottom)
in %



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

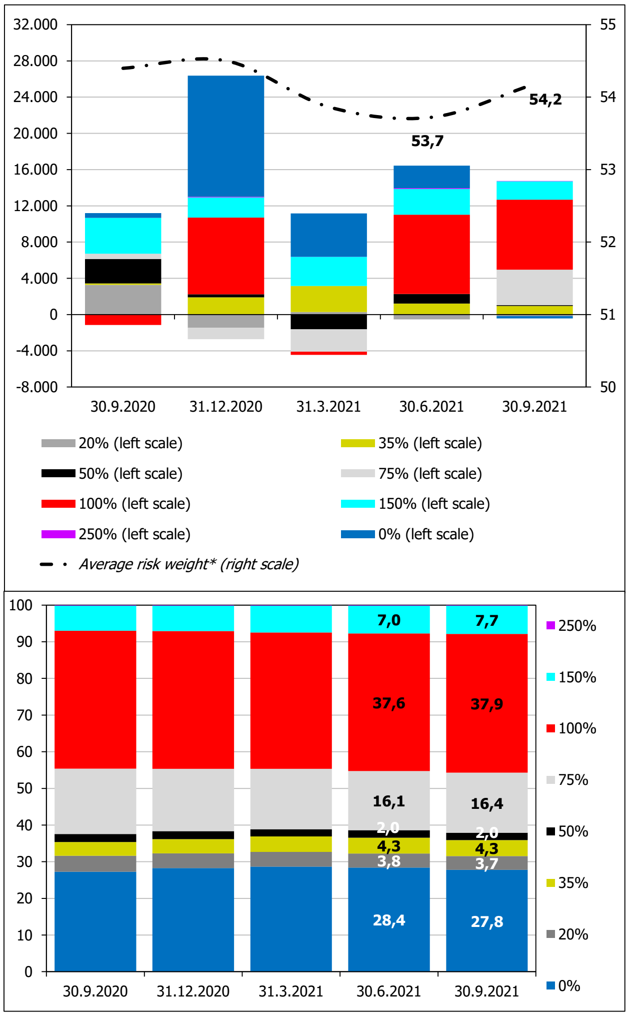
banking system is mostly due to dividend payments [36] to shareholders by two banks[37].

The capital adequacy ratio remained unchanged (17.3%), compared to 30 June 2021, as a result of the very small quarterly changes in own funds and risk weighted assets. The current level of capital adequacy ratio is quite close to the maximum of 17.5%, analyzed for the last ten years. The Tier 1 capital ratio and the common equity Tier 1 capital ratio remained at the level of 15.9% and 15.8%, respectively, which is significantly above the prescribed regulatory minimum of 6% and 4.5%, respectively).

In conditions of uncertainty about the further course of the COVID-19 health crisis, in the third quarter of 2021, banks ensured slower credit growth, which resulted in minimal increase also in the total risk-weighted assets, of 0.2%, or Denar 980 million. This growth is almost entirely due to the increase in credit risk weighted assets (of Denar 4,099 million, or 1.0%), given a significant decrease in currency risk weighted assets[38]. The increase in the credit risk weighted assets stems mostly from the growth in activities with weight of 100%, 75% and 150%[39], which contributed to **increasing the average level of bank risks** (as measured by the credit risk weighted assets and total on-balance and off-balance sheet exposure ratio) by 0.5 percentage points, to the level of 54.2%.

[36] At the beginning of August, the National Bank Council revoked the Decision on temporary limitation of the distribution and payment of dividends (which was adopted in February 2021). The revocation of the Decision was made after a previous due diligence of the current circumstances, developments and perceptions of the banking system and the environment in which it operates, taking into account the results of stress tests on the banking system's resilience to presumed shocks.
[37] For dividend payment, the retained earnings available for distribution to shareholders were used, which according to the regulation is not included in the banks' own funds. Hence, the dividend payment had no impact on the quarterly movement of banks' own funds and their capital adequacy ratio.
[38] More details in the section concerning the currency risk of this Report.
[39] Thus, half of the growth of the total on-balance sheet and off-balance sheet credit risk exposure of the banking system is due to the bank activities included with a risk weight of 100%, which grew by solid Denar 7,715 million (or 2.8%), mostly as a result of the increase in claims of non-financial companies. Increase (of Denar 3,922 million, or 3.4%) was also registered in positions with a weight of 75%, mostly as a result of the increase in claims secured with business buildings, and partly due to the increase in small loan portfolio. Furthermore, the positions with a risk weight of 150% also register an upward trend, mostly as a result of the increase in the consumer loan portfolio.

Chart 41
Quarterly growth (top) and structure (bottom) 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.

5.2. Quality of the banking system's own funds

The quality of banks' own funds is quite favorable, which contributes to the solid resilience of the domestic banking system to potentially stressful scenarios, given the uncertainty about the further course of the COVID-19 health crisis. In the third quarter of 2021, the own funds of the banking system registered slight decrease of Denar 80 million, or 0.1%, which mostly results from the reduced amount of subordinated instruments in one large and one medium-size bank[40]. In the structure of the common equity Tier 1 capital of the banking system, certain quarterly changes were registered, which had almost no impact on the total amount of this part of own funds, and mostly occur due to the afore mentioned status change of the two banks[41].

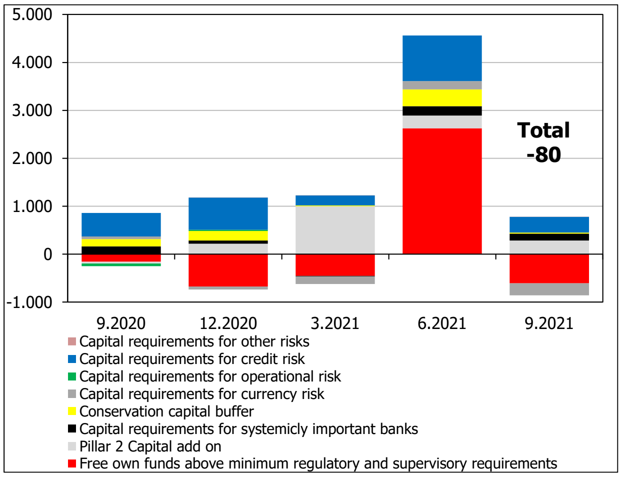
The banks maintain high level of the most quality layer of the banking system' own funds (common equity Tier 1 capital), which represents 91.6% of the total own funds of banks, the same as on 30 June 2021). The share of the Additional Tier 1 capital is also unchanged, as well as the Tier 2 capital in the own funds of the banking system, i.e. their share is 0.4%[42] and 8%, respectively. For more details about the level of own funds by group of banks see annexes to this report.

The own funds exceeding the required level for covering all these supervisory

[40] According to the regulations, during the last five years until the maturity or payment period, the amount of subordinated instruments included in the calculation of own funds is discounted by 20% each year. In the last year before maturity or payment, subordinated instruments are not included in the calculation of own funds. In the third quarter of 2021, a bank from the group of small banks issued a new subordinated instrument, which meets the regulatory requirements for inclusion in the calculation of own funds.
[41] The nominal value of common shares increased quarterly, at the expense of almost equal reduction of the common shares premium and the retained non-allocated earnings. Such changes are due to the merger of one bank with another in July 2021, which, among other things, was performed by increasing the core capital of the integrated entity by issuing common voting shares for the purpose of conducting the status procedure.
[42] Only one medium-size bank has issued instruments of the Additional Tier I capital.

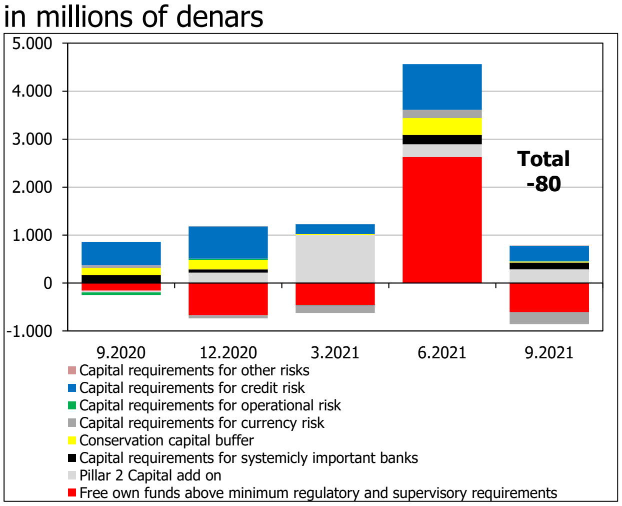
and regulatory requirements registered quarterly decrease (of Denar 610 million, or 7.1%) and as of 30.9.2020 they accounted for 10.5% of the total own funds of the banking system. Namely, the growth of activities led to a moderately higher amount of capital supplement determined by supervisory assessment, on the safeguard capital buffers (for systemically important banks[43] and capital safeguard)[44], as well as the regulatory capital to cover individual risks (by Denar 78 million, or by 0.2%).

Chart 42
Structure of the quarterly growth of own funds
in millions of denars



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

Chart 43
Quarterly growth of own funds, by the requirement for covering risks and for maintaining the required capital buffers
in millions of denars

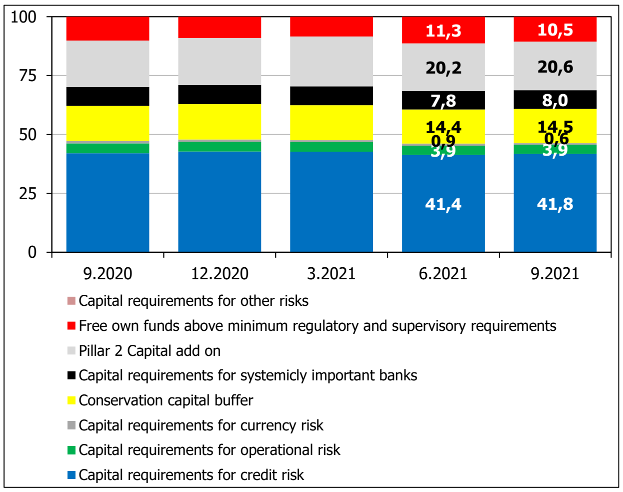


Source: National Bank, based on data submitted by banks.

According to this calculation, seven banks have been identified as systemically important banks (which should meet the determined rate of capital buffer for systemically important bank, not later than 31.3.2021). For more information visit: https://www.nbrm.mk/content/Regulativa/Lista_identifikuvani_sistemski_znacajni_banki_2020.pdf .

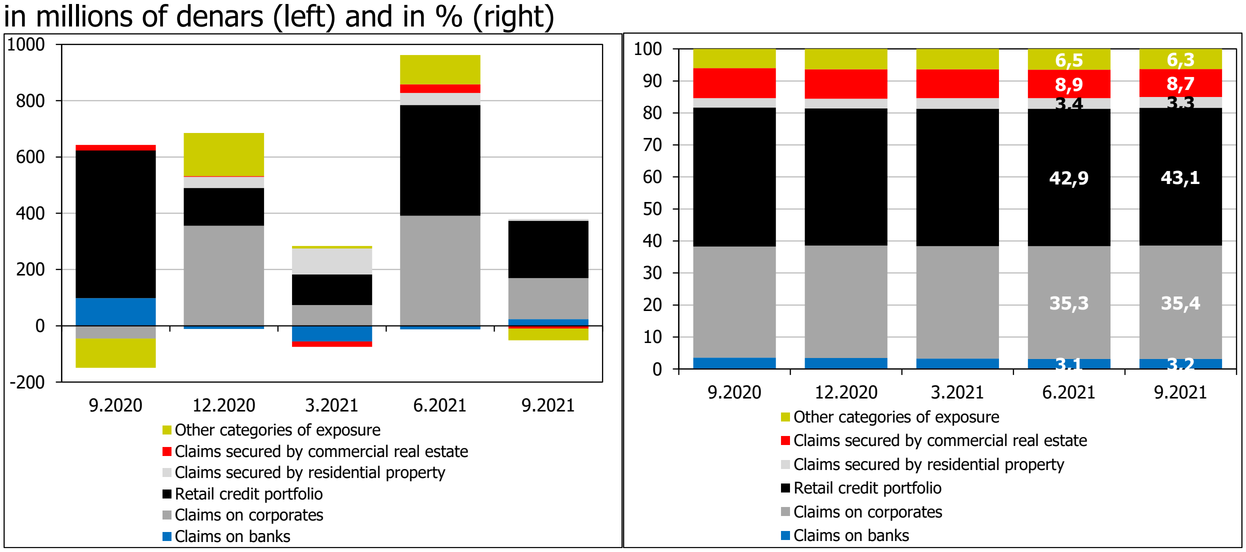
[44] The increase in the capital supplement determined through supervisory evaluation equaled Denar 284 million, or 1.8%, while the capital buffers increased by Denar 167 million, or 1%.

Chart 44
Structure of own funds, by the requirement for covering risks and for maintaining the required capital buffers
in %



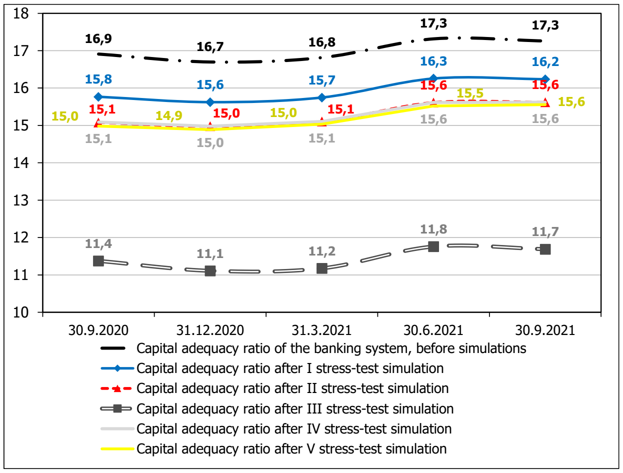
Source: National Bank, based on data submitted by banks.

Chart 45
Quarterly growth rates (left) and structure (right) of capital requirements for credit risk, by exposure category
in millions of denars (left) and in % (right)



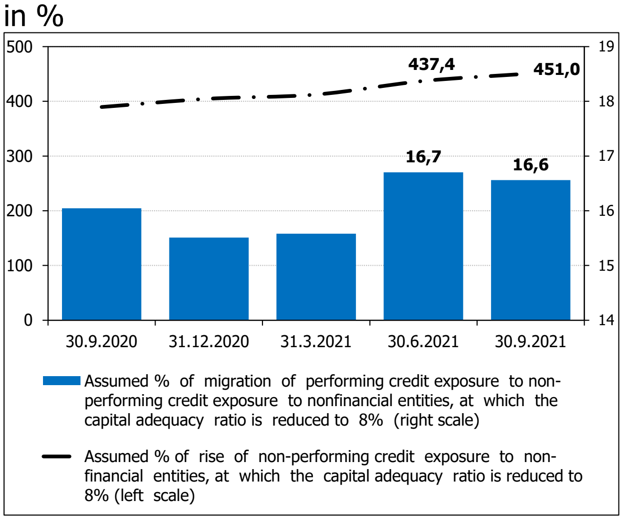
Source: National Bank, based on data submitted by banks.

Chart 46
Results of stress-test simulations
in %



Source: National Bank, based on data submitted by banks[45].

Chart 47
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 credit risk materialization (isolated, or in combination with materialization of currency and/or the interest rate risk). The results of the conducted regular stress-testing of the resilience of both, banking system and individual banks to simulated shocks are better compared to 30.9.2021, pointing to maintenance of the previous level of resilience of the solvent position. Namely, in all simulations, as of 30.9.2021 the capital adequacy ratio is almost identical to one as of 30.6.2021, which corresponds to the unchanged initial level of the capital adequacy ratio before shocks (17.3%, as of 30.9.2021 and as of 30.6.2021). 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 had the greatest impact on the solvency of the banking system. The results of the so-called reverse stress test show that it takes a growth of 451% of non-performing loan exposure, i.e. migration of 16.6% 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,

[45] Stress testing includes the following simulations:
I: Increase in non-performing loan exposure to non-financial entities by 50%;
II. Increase in non-performing loan exposure to non-financial entities by 80%;
III. Migration of 10% of the regular to a non-performing credit 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;

especially in the short term, given that in the third quarter of 2021, the non-performing credit exposure to non-financial entities registered an annual increase of 2.4%. On the other hand, in the third quarter of 2021, only 0.5% of the regular credit exposure to the non-financial sector received a non-performing status.

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

3. Bank activities

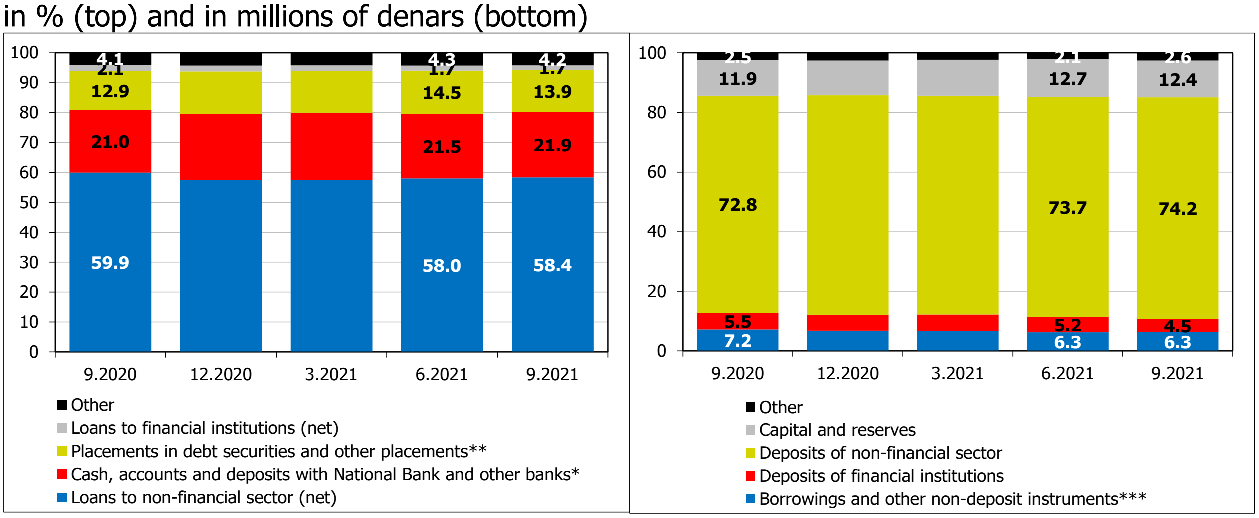
Banks operated in conditions of a pandemic also in the third quarter of 2021. Besides the uncertainties due to the pandemic, in this period the risks associated with the disturbance of the value chains and the volatility in the primary commodities markets, were also pronounced. In such conditions, the balance sheet of the banking system registered slower quarterly growth.

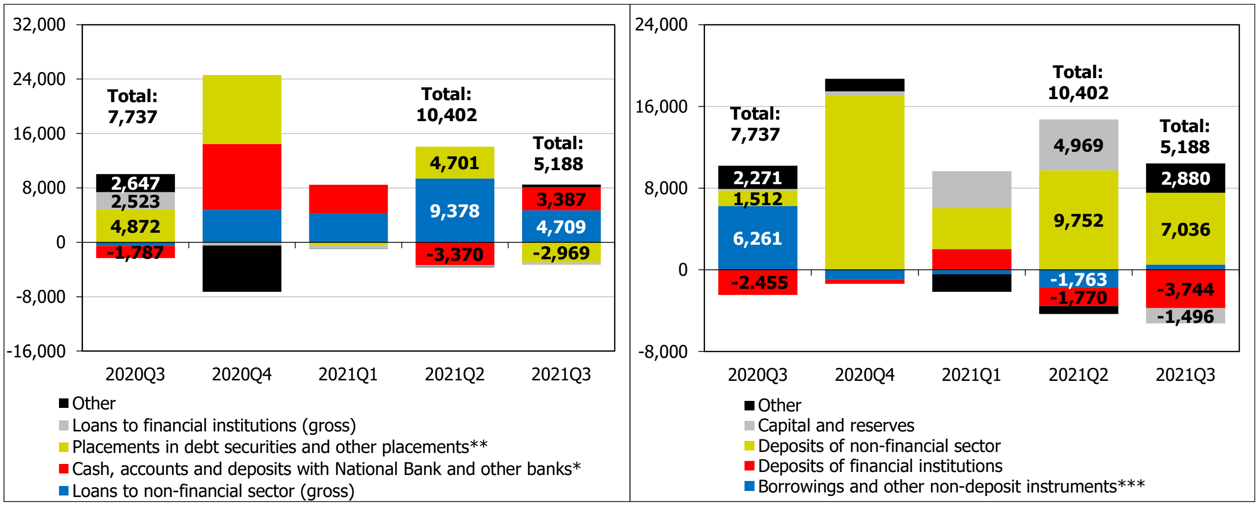
On the part of sources of funds, the deposits continued to grow, but slower on a quarterly basis. The propensity for foreign currency deposits and at very short run, is still high and these deposits contributed the most to the quarterly growth of total deposits. Higher profits of the banking system also contributed to the quarterly growth of sources of funds.

In the third quarter of 2021 the banks registered slower credit growth. 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. In addition to the lending activity with the non-financial sector, in the third quarter of 2021, the placements in deposits with the National Bank and the funds on accounts with foreign banks also increased.

The risks in relation to the growth pace of the economic activity and the activities of the banking system in the next period are largely associated with the further developments with respect to the health crisis, but also with the disturbances in the global supply and production chains, as well as with the current energy crisis.

Chart 48
Structure of the assets (top left) and liabilities (top right) and structure of the quarterly changes of the assets (bottom left) and liabilities (bottom right) of the banking system
in % (top) and in millions of denars (bottom)





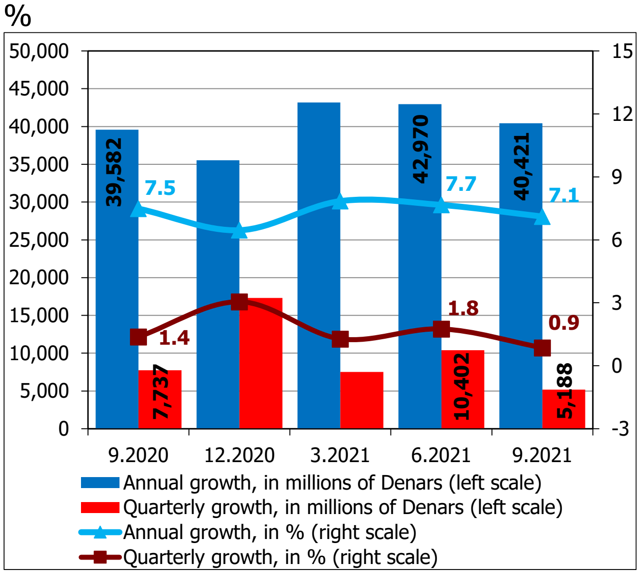
Source: National Bank, based on data submitted by banks.

Note: * Cash, accounts and deposits with the NBRNM and other banks also include the assets in the KIBS reserve guarantee fund, as well as the reserve requirement in foreign currency;

** Other placements include placements in equities and investment in subsidiaries, associates and joint;

*** Other non-deposit instruments issued include issued subordinated and hybrid capital instruments.

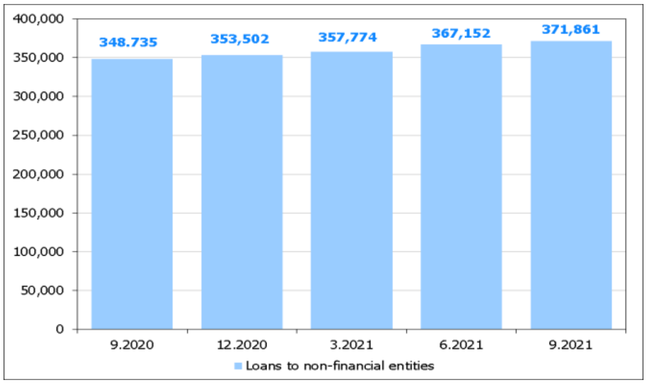
Chart 49
Assets of the banking system
in millions of denars in %



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

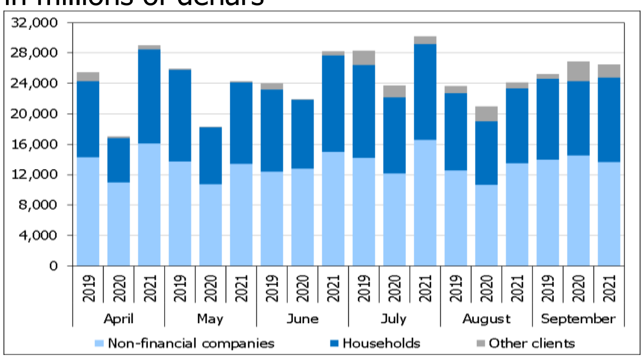
In the third quarter of 2021, the balance sheet of the banking system registered faster growth (which amounted to Denar 5,188 million or 1.8%), compared to the previous quarter (Denar 10,402 million or by 1.3%). Carriers of the growth are the non-financial entities' deposits, which registered the highest quarterly growth, with a significant increase also being registered in the profit of the banking system. On the other hand, the financial institutions' deposits declined on a quarterly basis, while capital and reserves decreased due to dividend payment with some banks. In assets, the loans to non-financial entities registered the highest quarterly growth, but significantly slower compared to the previous quarter, while the placements in deposits with the National Bank and the funds on accounts with foreign banks increased solidly. At the same time, government bond placements, for the first time in a long period, registered a quarterly decline.

Chart 50 Amount of loans to non-financial entities
in millions of denars



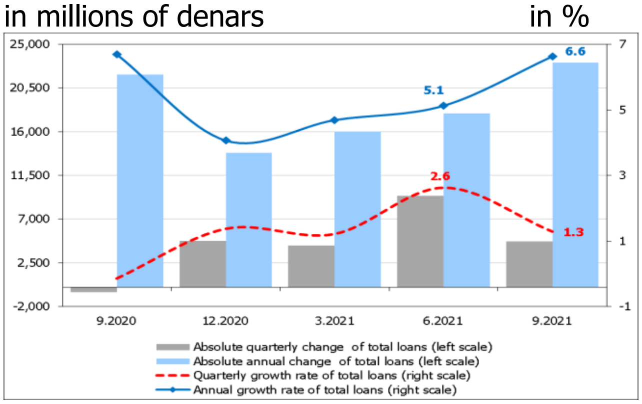
Source: National Bank, based on data submitted by banks.

Chart 51 New loans by individual sectors
in millions of denars



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

Chart 52 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[46]

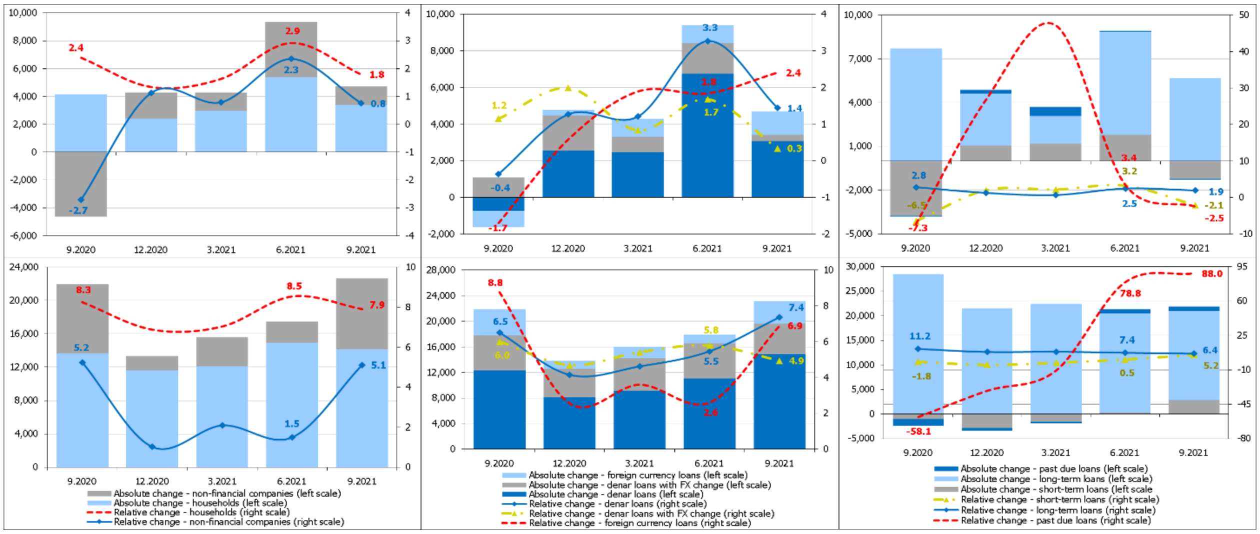
In the third quarter of 2021, the lending to non-financial sector increased by Denar 4,709 million, or by 1.3%, which is a deceleration compared to the previous quarter, when the credits increased by 2.6%. There is a slowdown in credit growth in both segments of the loan portfolio, which is associated with the slower increase in demand for loans as banks tighten credit conditions. Although almost all banks[47] registered intensified lending activity compared to the previous quarter, only two larger banks contributed with around 73% in the total quarterly growth of loans to non-financial entities.

The quarterly volume of new loans to the non-financial sector decreased slightly compared to the previous quarter[48], alhough it was significantly higher (by 12.9%) compared to the third quarter of the previous year.

The reason for the quarterly growth of the credit activity mostly lies in the lending to households, while the contribution of loans to was smaller.

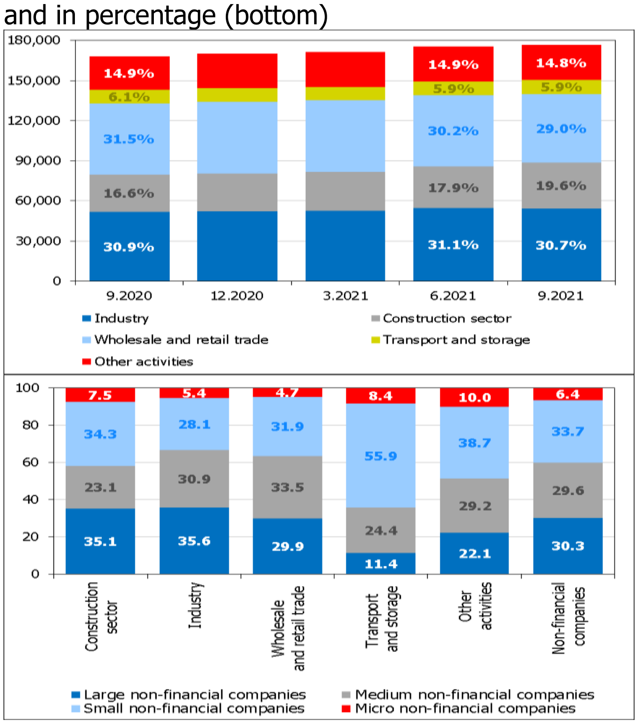
[46] Loans to non-financial entities include loans to resident and non-resident non-financial entities, including loans to private and public non-financial corporations, central government, local government, non-profit institutions serving households, sole proprietors and natural persons.
[47] DBNM AD Skopje is not taken into account due to its specific activities, which hardly include direct lending to companies.
[48] Compared to the previous quarter, the amount of new loans decreased by 1%, amid decline of 6.5% and 1.7% in the household and corporate segment, respectively.

Chart 53 Quarterly (top) and annual (bottom) growth of loans, by sector, currency and maturity
in millions of denars and in %



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

Chart 54 Structure of loans to companies, by individual activities (to) and according to the size of the company (bottom)
in millions of denars and in percentage in signs (top) and in percentage (bottom)



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

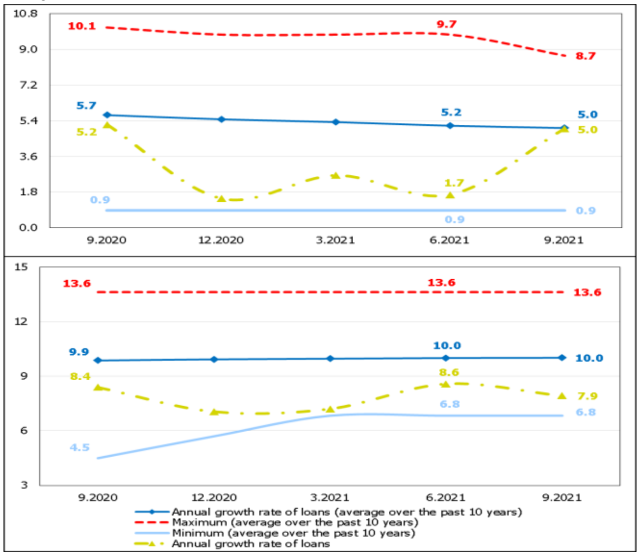
The credit support to companies decelerated in the third quarter of 2021, amid growth of loans to this sector of Denar 1,315 million, or 0.8% (the growth in the second quarter of 2021 amounted to Denar 3,986 million or 2.3%). In contrast, the annual growth rate of corporate loans (excluding the effect of net write-offs) accelerated to 5.0%, which is at the level of its 10-year moving average.

The structure of loans to companies, according to the economic activity loans, is predominated by the loans from the trade activity and industry. Analyzed by the size of non-financial corporations[49], on 30 September 2021, there is a similar share in the corporate loans of small enterprises (one third), and large and medium-size enterprises (about 30% each).

The slowdown in the credit growth of the non-financial corporations corresponds to the movements in this credit market segment, where the conditions for granting corporate loans

[49] 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.

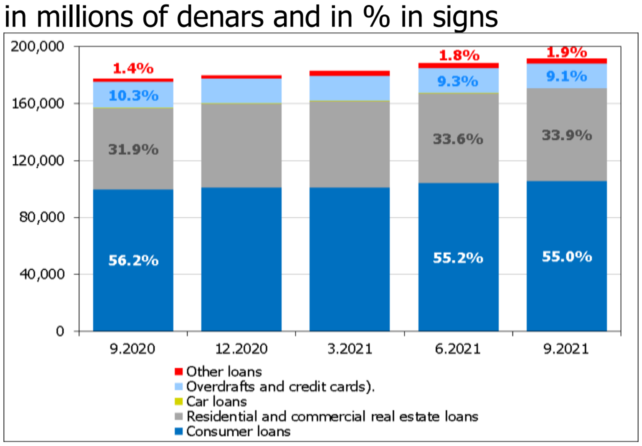
Chart 55 Ten-year moving average of annual growth rates of loans to non-financial corporations (top) and household loans (bottom)
in %



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 - 30.9.2021. Starting from December 2019, the data also contains collected compulsorily written-off loans.

Chart 56 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.

tightened to a great extent[50]. At the same time, in the third quarter of 2021, banks point to increase in the total demand for corporate loans, compared to the previous quarter. For the last quarter of 2021, banks expect further net tightening of the credit conditions for approving corporate loans, amid further net increase in the credit demand by companies.

Smaller credit support is registered also in the households' loan portfolio, where the annual growth rate in the third quarter of 2021 is 1.8%, given growth of these loans of Denar 3.392 million (in the second quarter of 2021 they increased by 2.9%, or Denar 5,378 million). The annual growth of household loans (excluding the effect of net write-offs) also slowed down to 7.9% (8.6% on 30 June 2021), and six quarterly dates (i.e. from the beginning of the corona crisis) it is already below the 10-year moving average of the annual growth rates of these loans (10%).

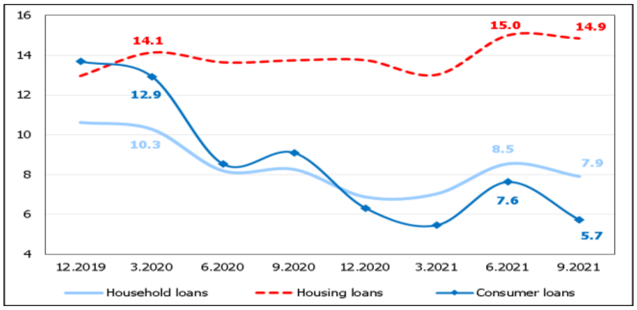
The weaker credit growth in households is mostly a result of the smaller increase in the demand for loans, given simultaneous slightly tighter credit conditions. Namely, in the third quarter of 2021, banks point to slight net tightening of the credit conditions in household loans[51] which is the most evident in the consumer loans. On the demand side, banks point to a further net increase in demand for total loans, but far smaller than in the previous quarter, which is largely due to the slower net increase in demand for housing loans. In the next quarter, banks expect net easing of the credit conditions, amid net increase in the demand for loans by households.

Household loans continue registering slightly higher share in the total loan structure, which

[50] From the aspect of the individual lending conditions for enterprises, the banks indicate a net tightening of collateral requirements and non-interest income, with a net easing regarding loan maturities. The other credit conditions (size and interest rate) are assessed mainly as unchanged credit conditions by banks. Source: The Lending Surveys of the banks, conducted by the Monetary Policy and Research Department of the National Bank.

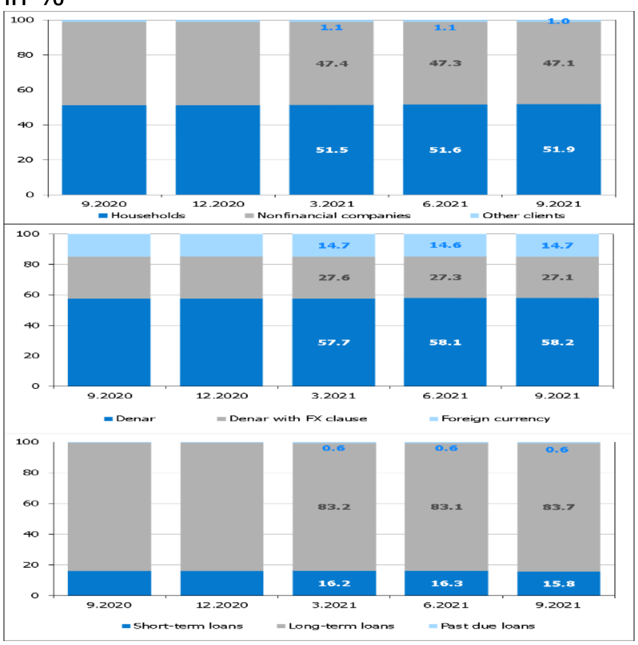
[51] By individual credit conditions, there is a net tightening of the conditions for the provision of housing loans and the maturity of consumer loans. In contrast, the interest rate on household loans, housing loan fees and non-interest income on consumer loans registered a net relief. Source: Banks' Lending Surveys, conducted by the Monetary Policy and Research Department of the National Bank.

Chart 57 Annual growth of household loans, by product
in %



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

Chart 58 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.

additionally increased (by 0.3 percentage points) and accounted to 51.9% as of 30.9.2021. By credit product, 64.1% of loans to natural persons are intended for consumption financing (consumer loans, overdrafts and credit cards). Analyzing the credit products, housing loan growth is at a similar level as in the pre-crisis period[52], while consumer loans registered evidently low annual growth compared to the pre-pandemic period.

In the third quarter of 2021, denar loans[53] made the largest contribution (65.3%) to the growth of total loans, while the contribution of foreign currency loans[54] and denar loans with currency clause[55] is significantly smaller (27.4% and 7.3%, respectively). The currency structure of total loans is almost the same as in the previous quarter, with continued prevalence of denar loans (58.1%).

The increase in the credit portfolio maturity continued in the second quarter of 2021, through further growth of long-term lending (of 1.9%, or Denar 5.683 million), which as of 30.9.2021 made up 83.7% of the structure of total performing[56] loans. Most (about 55%) of the growth of long-term loans is due to household loans, with a significant contribution being made also by loans to non-financial corporations. Short-term loans registered a decrease.

[52] As of 30.9.2021, 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 30.9.2021, 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 2.9% and 1.5%, respectively.

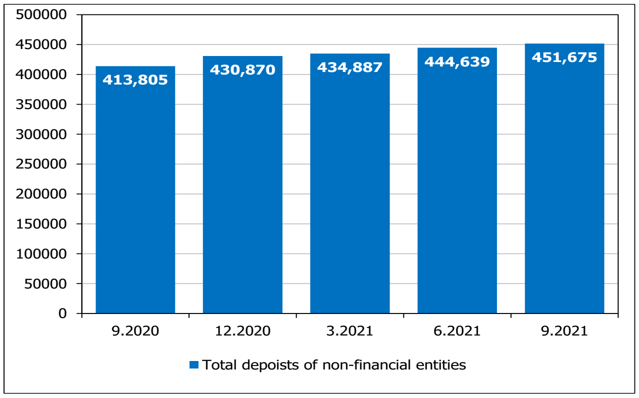
[53] Denar loans increased quarterly by Denar 3.076 million (or 1.4%), largely as a result of household loans (growth of Denar 2.129 million, or 2,0%), and to a lesser extent of the increase in non-financial institutions loans (of Denar 864 million, or 0.8%).

[54] Foreign currency loans rose quarterly by Denar 1,289 million, or 2.4% i.e. corporate loans increased by Denar 1,244 million (or 3.0%), while the growth of household loans amounted to Denar 59 million (or 1.6%).

[55] Denar loans with foreign exchange clause increased quarterly by Denar 344 million, or 0.3%, resulting from household loan growth of Denar 1,203 million, or 1.7%, despite the decrease in corporate denar loans with foreign exchange clause (by Denar 793 million, or or 3.0%).

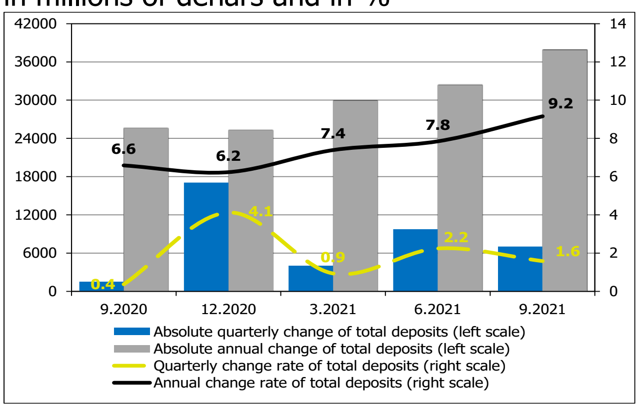
[56] The analysis of maturity structure of loans excludes non-performing loans.

Chart 59 Stock of deposits of non-financial entities
in millions of denars



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

Chart 60 Growth of deposits of non-financial entities
in millions of denars and in %



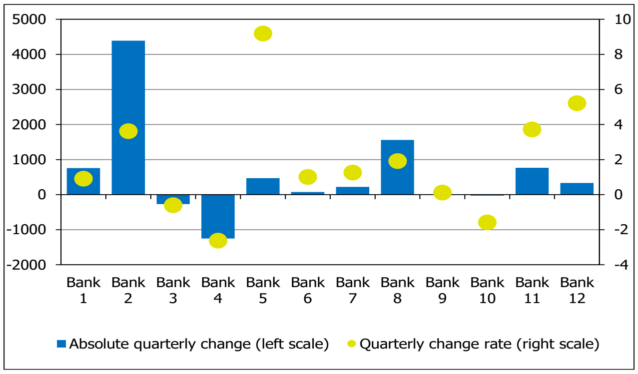
Source: National Bank, based on data submitted by banks.

1.1 Deposits of non-financial entities

In the third quarter of 2021, the deposit growth of the non-financial entities continued, both on a quarterly and annual basis. In the third quarter in 2021, the deposits of the non-financial entities increased by Denar 7,036 million, or by 1.6%, which is a certain deceleration compared to the increase in the previous quarter (Denar 9,752 milliion, or 2.2%). On the other hand, on annual basis, total deposits registered accelerated growth of 9.2%, both compared to 30 June 2021 (annual growth of 7.8%) and compared to 30 September 2020 (annual growth of 6.6%). Analyzed by bank, two large banks almost entirely drive the quarterly growth of deposits, and only oneof them account for about 62% of the total quarterly growth.

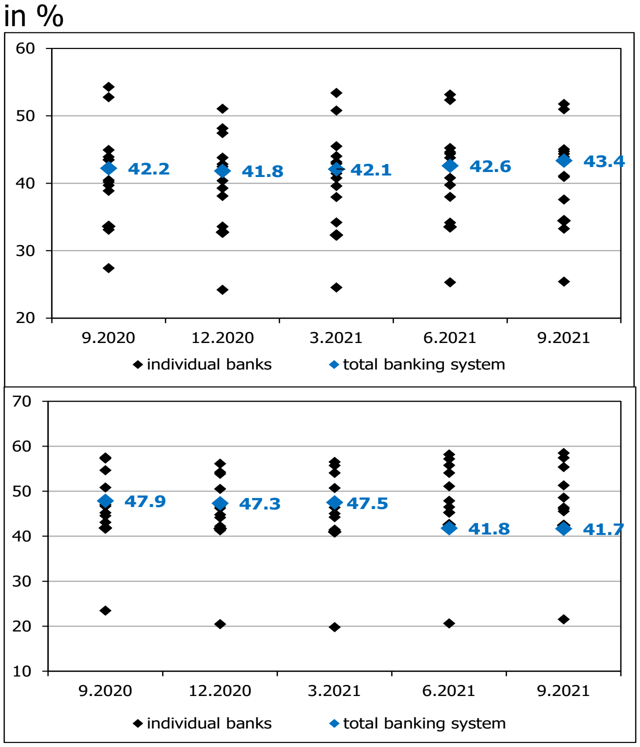
In the third quarter of 2021, the household deposits continue to register accelerated grow compared to the previous quarter. Thus, household assets deposited in banks (which are traditionally the most important depositor in the Macedonian banking system with a share of 66.7% in total deposits) increased by Denar 5,004 million, or 1.7%, and their growth was significantly accelerated on annual basis, amounting to Denar 18,925 million, or 6.7% (compared to 4.3% on 30 June 2021).

Chart 61 Growth of deposits of non-financial entities, by bank
in millions of denars and in %



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

Chart 62
Share of total foreign currency deposits in the total deposits of the banking system (top) and of the foreign currency household deposits in the total household deposits (bottom)
in %



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

On the other hand, the deposits of the non-financial corporations continue to grow, but more moderately (by Denar 1,316 million, or by 1% on 30 September 2021, which is a slowdown of 4.4 percentage points compared to the previous quarter). Deposits of the non-financial corporations registered slower growth and on annual basis, they decreased from 16.7%, on 30 June 2021, to 15.5%, on 30 September 2021.

The prolonged pandemic of COVID-19 resulted in certain change in depositor currency and maturity preferences, evident through the growth of foreign currency deposits and very short maturities. Thus the demand deposits and foreign currency deposits make the largest contribution to the total deposit growth. This caused some shiftes in the deposit currency and maturity structure[57].

The changed currency preferences of depositors from the previous year endured in the first nine months of 2021. Analyzing the currency, the quarterly increase in the deposit base almost fully arized from the foreign currency deposits (92.9%), which increased by Denar 6.536 million, or 3.5% in the third quarter of 2021. On the other hand, denar deposits also increased by only Denar 489 million, or 0.2% on a quarterly basis, which is a deceleration compared to the growth in the previous quarter (1.3%). Thereby, the quarterly growth of foreign currency deposits mostly results from the increase in demand deposits, with almost equal contribution of these deposits from both sectors (households and non-financial corporations). Accordingly, the share of denar deposits in total deposit base decreased, which at the end of the second quarter of 2021 equaled 56.5% (57.3% as of 30.6.2021), while the share of

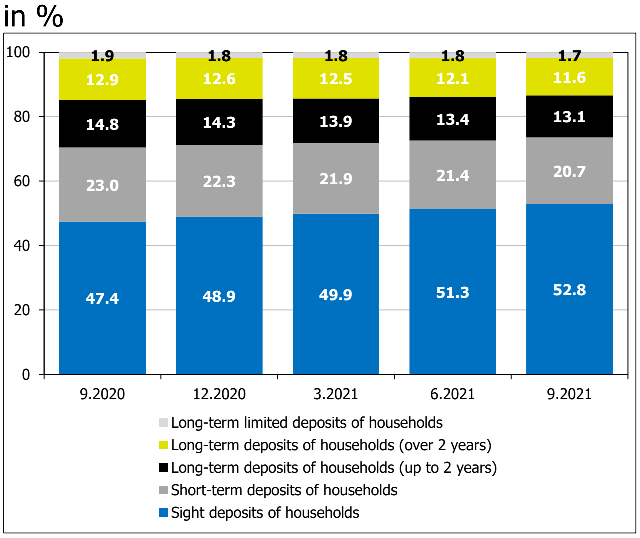
[57] Since the beginning of the pandemic, the share of foreign currency deposits has moderately increased (by about 2 percentage points), but the share of demand deposits is higher (by almost 9 percentage points).

foreign currency deposits increased to the level of 43.4% (42.6% as of 30.6.2021).

Analyzing maturity, demand deposits fully contributed to the growth of total deposit base and registered an absolute quarterly increase of Denar 9,319 million, or 3.4% in the third quarter of 2021. The increase in demand deposits is mostly due to the almost equal growth of denar and foreign currency deposits of the "households" sector, and to a lesser extent, to the increase in foreign currency deposits of non-financial corporations. In contrast, the long-term58 deposits registered a quarterly decrease of Denar 877 million, or 0.9%, while the short-term59 deposits registered slightly more pronounced decrease of Denar 1,406 million, or 2%, which is evident with both sectors.

Analyzing household deposit maturity, in the third quarter of 2021, there was an increase in the structural share of demand deposits (from 51.3% as of 30.6.2021, to 52.8% as of 30.9.2021). An opposite trend was observed in short-term and long-term deposits, whose share in the maturity structure of household deposits decreased (from 21.4% and 27.4% as of 30.6.2021, to 20.7% and 26.4% as of 30.9.2021, respectively).

Chart 63 Maturity structure of household deposits in %

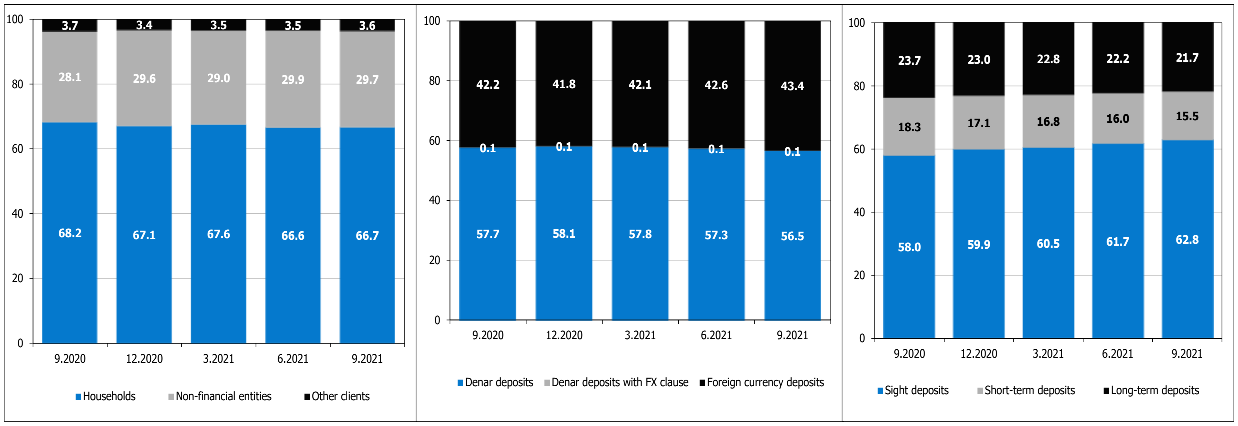


Source: National Bank, based on data submitted by banks.

[58] The quarterly decrease in long-term deposits entirely reflects the decrease in household deposits of Denar 1,439 million, or 1.8% entirely as a result of denar deposits), amid increase in deposits of of Denar 28 million, or 0.2% (entirely due to denar deposits).

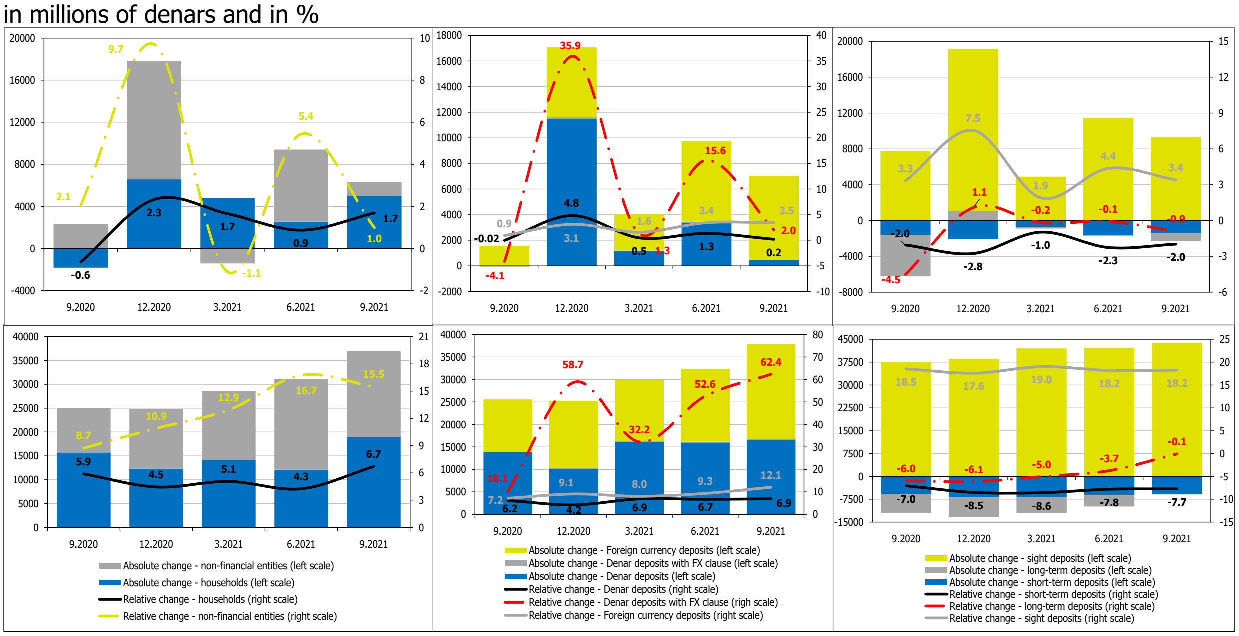
[59] The absolute quarterly decrease in short-term deposits almost equally results from the decrease in household deposits of Denar 849 million, or 1.3% (where the contribution of denar deposits is the largest and equals 68.2%) and non-financial corporate deposits of Denar 572 million, or 8.7% (fully denar deposits).

Chart 64
Structure of total deposits, by sector (left), currency (middle) and maturity (right)
in %



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

Chart 65
Quarterly (top) and annual (bottom) deposit growth by sector (left), currency (middle) and maturity (right)
in millions of denars and in %

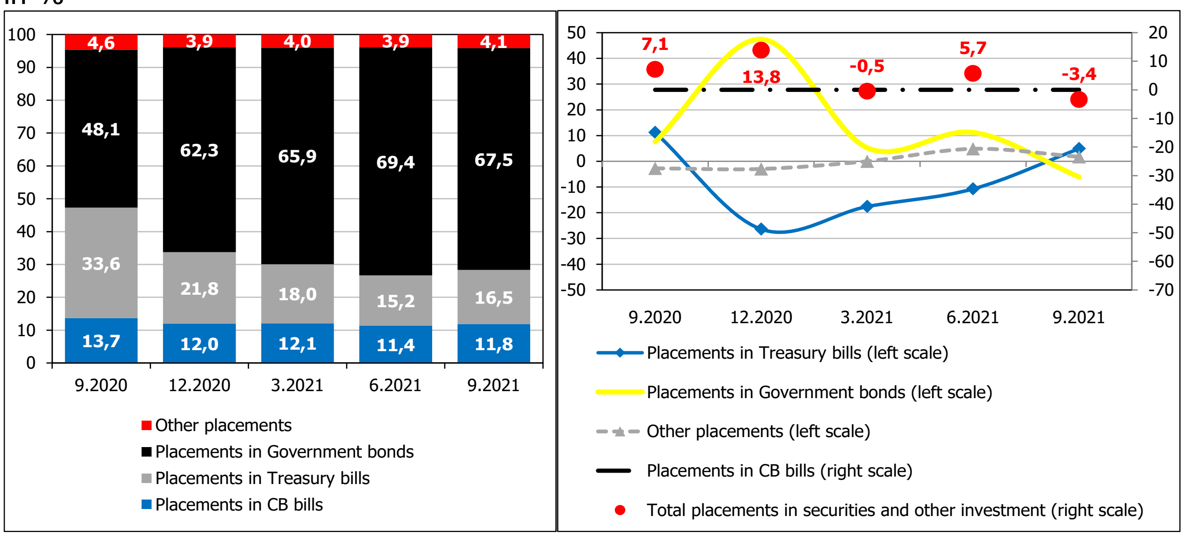


Source: National Bank, based on data submitted by banks.

1.2. Other activities

Banks' placements in debt securities and other investments[60] (net book value) decreased by Denar 2,969 million (or 3.4%) on a quarterly basis, which contributed to a decrease in their share in total assets of banks to 13.9% as of 30.9.2021 (from 14.5% as of 30.6.2021). The quarterly decrease of the banks' investments in government bonds (of Denar 3,687 million, or 11.2%) fully conditioned the decrease in the banks' investments in debt securities and other investments.[61] As a result of such developments, the share of investments in government bonds in the total placements in debt securities and other banks' investments fell to 67.5% as of 30.9.2021 (69.4% as of 30.6.2021, at the expense of the moderate increase in the share of placements in treasury bills (from 15.2% as of 30.6.2021 to 16.5% as of 30.9.2021).

Chart 66
Structure (left) and quarterly growth (right) of placements in debt securities and other investments
in %



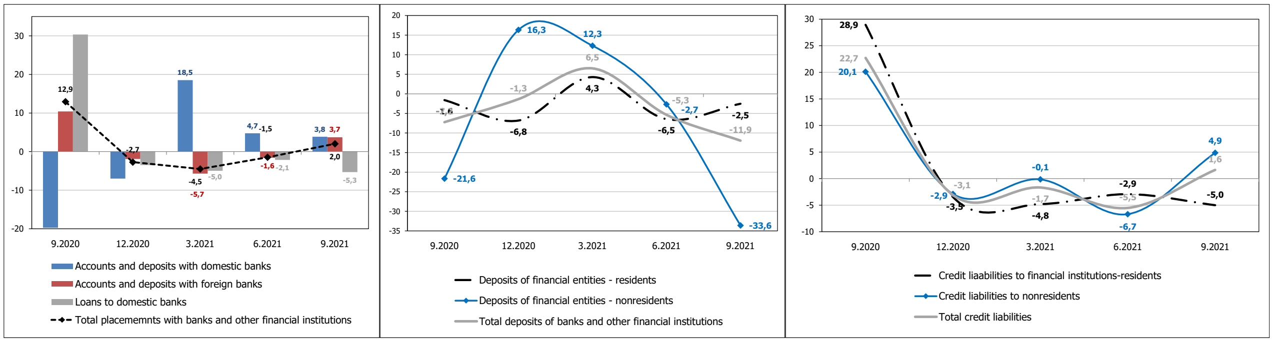
Source: National Bank, based on data submitted by banks.

In the third quarter of 2021, placements with banks and other financial institutions slightly increased by Denar 813 million or 1.5%. Such increase was mostly due to the upvward movements in placements on accounts and deposits with foreign banks (of Denar 1,022 million, or 3.7%)[62], as well as the slight increase in the placements on the accounts and the deposits with domestic banks (of Denar 63 million, or 3.8%). On the other hand, a certain decrease in the loans granted to domestic banks has been registered (by Denar 521 million, or by 5.3%[63]).

[60] Other investment includes placements in equities and investment in subsidiaries, associates and joint ventures.
[61] Banks' investments in CB bills are unchanged compared to the second 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 increase of 658, or 4.9%.
[62] The more pronounced fall in time deposits abroad in foreign currency overnight and up to one month is covered by the growth of time deposits in foreign currency with maturity of three months to one year.
[63] 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.

Total **banks' liabilities based on loans** increased by Denar 511 million, or by 1.6% quarterly, which is almost entirely due to increased liabilities based on loans to non-resident financial institutions with certain banks.

Chart 67 Quarterly growth of claims on financial institutions (left), loan liabilities (middle) and deposits of financial institutions (right)
in %



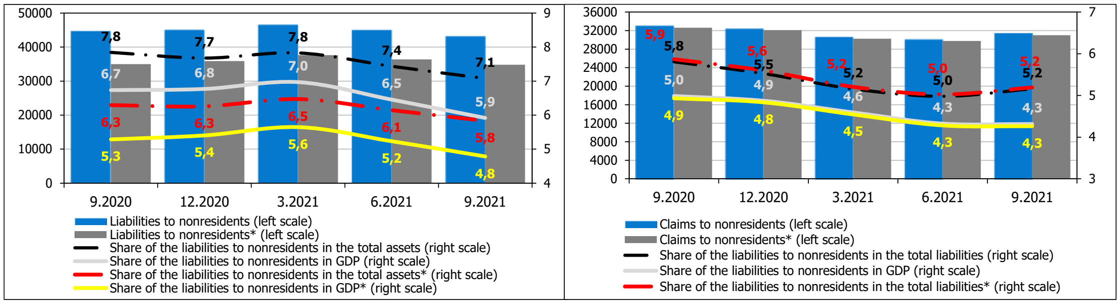
Source: National Bank, based on data submitted by banks.

Deposits from banks and other financial institutions remain an insignificant source of banks' financing, accounting for 4.5% of total liabilities at the end of the third half of 2021. The higher quarterly downward correction of banks and other financial institutions' deposits (by Denar 3,744 million, or 11.9%) is almost entirely due to the halving of short-term deposits (up to one month) of non-resident financial institutions (by Denar 3,200 million), as well as on pension fund deposits, due to the strategy of managing and investing the assets of one pension company (by Denar 766 million).

The scope of banking system activities with non-residents is constantly very limited, but there are deviations at a bank level. In the third quarter of 2021, as before, the banks across the banking system owe more[64] than they claim on non-residents, although the claims register higher relative growth compared to the relative decrease in the amount of liabilities to non-residents. Domestic banks' liabilities to non-residents registered a quarterly fall of Denar 1,801 million, or 4%, and their share in the total banking system liabilities insignificantly decreased to 7.1%[65] as of 30.9.2021 (7.4% as of 30.6.2021). This decrease is almost entirely due to the reduced balance of short-term deposits (up to one month) in foreign currency from non-resident financial institutions with two banks, in contrast to the growth of liabilities based on long-term foreign currency loans to non-resident financial institutions with several banks. Contrary to the movements in liabilities, banks' claims on non-residents increased on a quarterly basis by Denar 1,347 million (or 4.5%), mostly as a result of the increase in the funds on correspondent accounts in foreign banks.

[64] As of 30.9.2021, eight of thirteen banks owe more than they claim on non-residents.
[65] If DBNM AD Skopje is excluded from the analysis, the share of liabilities to non-residents in total liabilities would be 5.8%.

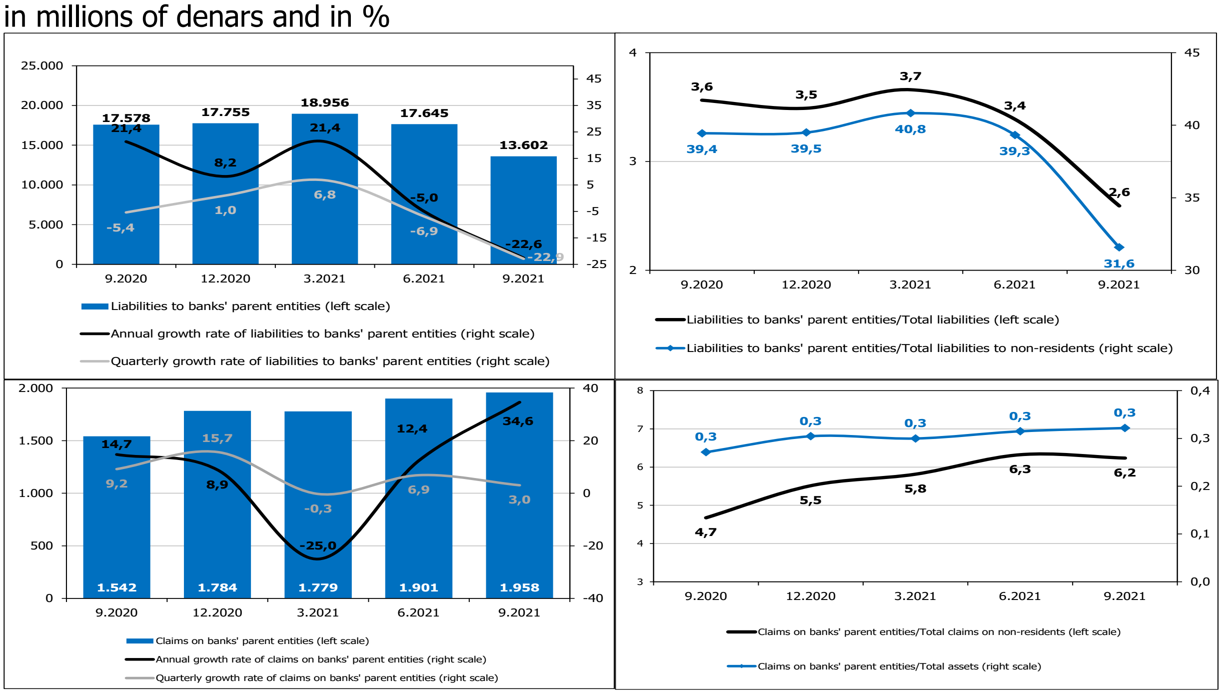
Chart 68
Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %



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 third quarter of 2021, banks' liabilities to their parent entities decreased significantly by Denar 4,043 million (or 22.9%), which is entirely due to the reduction of short-term deposits from financial entities with two large banks, at low growth of liabilities based on long-term loans at a 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 2.8% and 31.6%, respectively. **Banks' claims on parent entities** remain minimal and account for only 0.3% of the total assets of the banking system, while their share in total claims on non-residents declined insignificantly (by 0.1 percentage point) and equals 6.2%.

Chart 69
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 nine months of 2021[66] as a result of the higher profit, compared to the same period of the previous year. The bank activities for collection of "bad" loans had a favorable impact on the profitability of the banking system in this period, which enabled higher revenues than collected previously written off claims and reduction of impairment costs (mainly for financial assets) due to the release of impairment when collecting non-performing loans. The net income based on fees and commissions also contributed to the profitability growth, with the net interest income also registering an increase, whose contribution to the profitability growth increased compared to the previous year. Such movements in the net interest income largely result from the decline in interest expenses, with the interest income also having a contribution, which increased moderately on an annual basis, after the decrease in the previous four years.

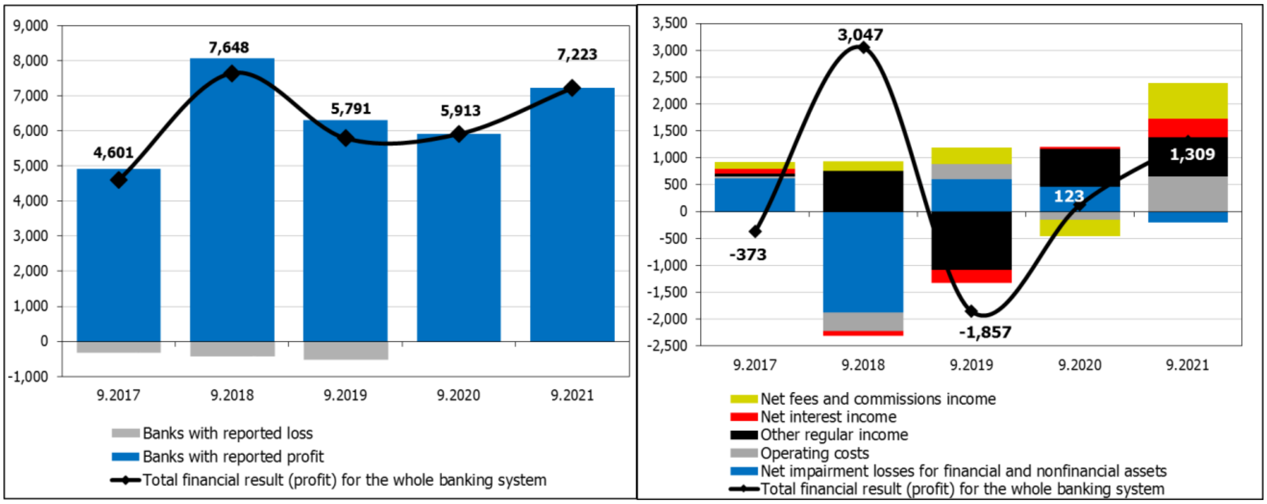
Banks' operating expenses increased, thus negatively contributing to the annual profitability growth of the banking sector. The increase in these costs is mostly due to higher general and administrative costs, staff costs and depreciation of fixed assets of banks.

In the first nine months 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

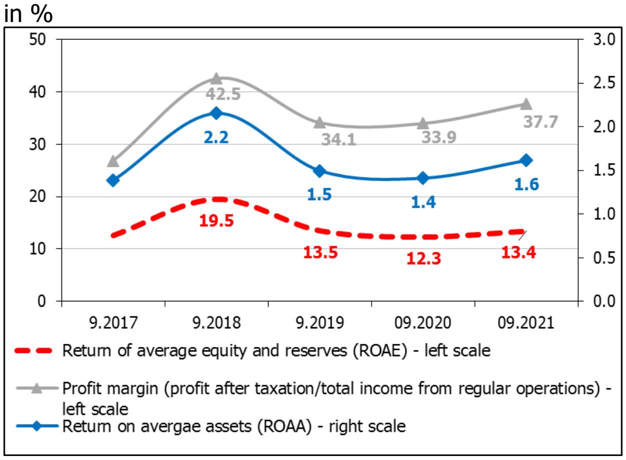
In the first nine months of 2021, the banking system generated operating gain of Denar 7,223 million, which is higher by 22.1% or Denar 1,309 million higher, compared to the previous year. The higher profit was primarily conditioned by the increase in non-interest income (of Denar 1,403 million, or 22.8%), which is a result of increased income based on collected previously written-off claims and higher net income from fees and commissions. Growth of Denar 343 million (or by 3.1%) was also registered in the net interest income, contributing with 26.2% in the total increase of the profit. The reduced impairment costs (primarily for financial assets) also contributed to the profit growth of 15.7%, in the amount to Denar 206 million (or 6.5%). Despite such movements, the banks' operating expenses increased by Denar 646 million, or by 7.8% and had a negative contribution to the annual growth of banks' profits. Analyzed by bank, all banks registered positive financial operating result. Profit was higher in large and medium-sized banks, while profitability decreased in the group of small banks, compared to the same period last year.

Chart 70 Net profit after taxation (left) and annual change main income and expenses (right)
in millions of denars



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

Chart 71
Rates of return on average assets and on average equity and reserves and profit margin
in %



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

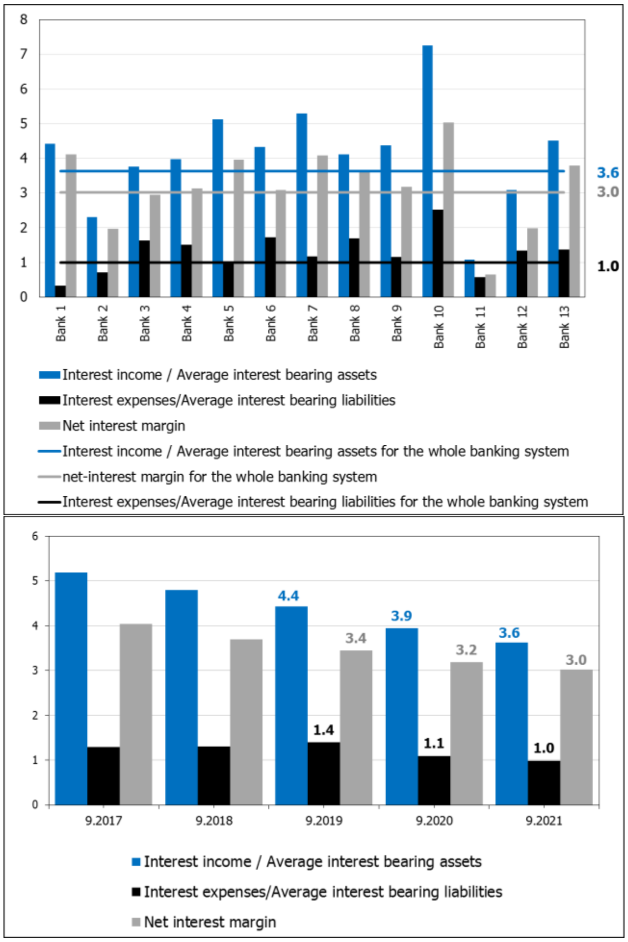
The profit growth in the first nine months of 2021 contributed to better profitability indicators of the banking system. The return on average assets and average equity[67] increased by 0.2 and 1.1 percentage points, respectively, while the growth of profit margin was 3.8 percentage points.

The constant downtrend of interest rates also affected the trend of net interest margin. In conditions of moderate growth of the net interest income[68] (by 3.1% or by Denar 343 million), compared to the increase of the average interest-bearing assets (Denar 40,840 million or by 8.7%), **the net interest margin decreased and equaled 3.0% for the first nine months of 2021.**

In the first nine months of 2021, as usual, financial intermediation with households made the largest contribution to both creation(59.3%) and the growth of net

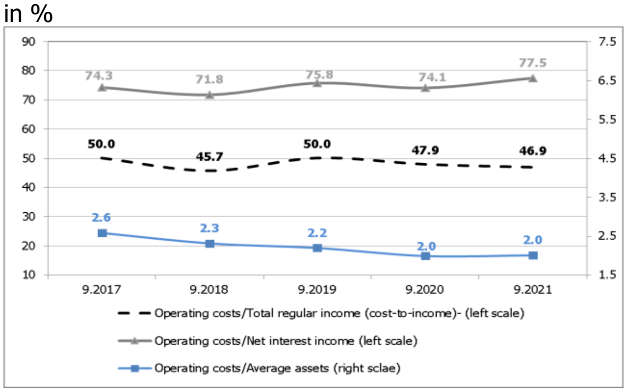
[66] All data in this section of the Report, derived from the banks' income statement (income, expenses, profit, loss, etc.) relate to the first nine months of 2021, and their value is compared with the same period last year or another year. Data derived from the balance sheet (assets, loans, deposits, capital, etc.) or those related to the lending and deposit interest rates in this section are presented as an average for the first nine months of 2021 and such calculated average is compared with the average calculated for the first nine months of 2020 or any other year. If data are presented on a different basis, other than the above-mentioned, it will be specified in the text.
[67]Average assets and average equity and reserves are calculated as the balance of assets i.e. equity and reserves as of the analyzed date and as of 31 December of the previous year.
[68] The growth of net interest income largely resulted from the annual decline in interest expenses (by Denar 257 million, or 9.9%), and the growth of interest income (by Denar 86 million or 0.6%) also contributed.

Chart 72
Net interest margin by bank, as of 31.12.2020 (up)* and of the banking system (down)
in %



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

Chart 73
Operational efficiency ratios
in %



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

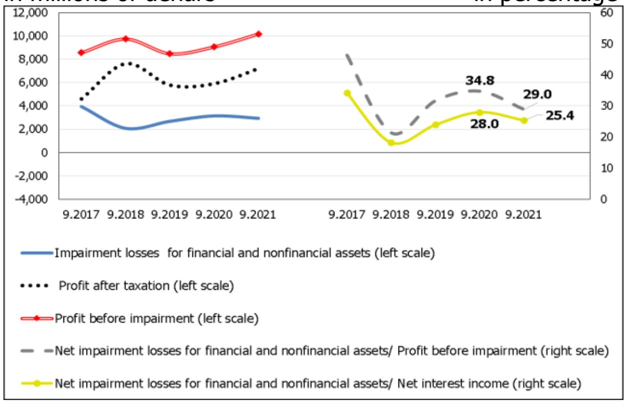
interest income. Compared to the previous year, the net interest income from households increased by Denar 365 million or 5.6%. This growth is largely due to the decrease in interest expenses with households (by Denar 252 million, or by 21.0%), and less on the growth of interest income from this sector (by Denar 114 million or 1.5%). Net interest income from of 37.6% of total net interest income decreased (by Denar 84 million, or 1.9%) in the first nine months of 2021, due to the higher decline in interest income (of Denar 112 million, or 2.4%), compared to the decrease in interest expenses (of Denar 27 million, or 9.9%). Banks also registered an increase in the net interest income from the Government (by Denar 209 million, or by 33.6%), accounting for 7.2%.

The indicators of the banking system operating efficiency registered different movements. The ratio between operating expenses and total regular income improved by 1 percentage point, while the share of these expenses in net interest income increased by 3.4 percentage points. Operating costs in the first nine months of 2021 are higher by 7.8% or Denar 646 million compared to the same period last year, which is a faster growth compared to the growth of net interest income (3.1%), but slower than the growth of total regular income (10%). On the other hand, the growth of average assets (6.8%) does not deviate much from the increase in operating expenses, which conditioned an unchanged ratio between these two categories. The increase in operating costs results mostly from higher general and administrative costs (mainly services costs), employment costs and depreciation. In the structure of total regular revenues, the highest growth is that of the revenues based on collected previously written off claims (by Denar 1,268 million, or by 3 times) and the net revenues from commissions and fees (by Denar 669 million, or by Denar 19.5%). At the same time, the capital gain from sale of assets dropped by Denar 759 million, or by 74.8%.

Chart 74

Impairment costs to gain and to net interest income ratios

in millions of denars in percentage

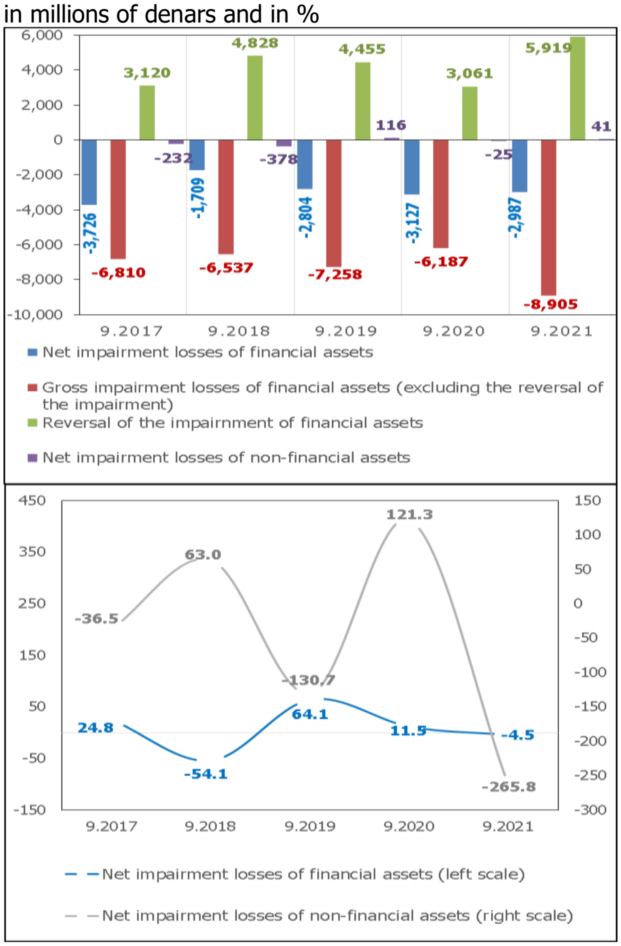


Source: National Bank, based on data submitted by banks.

Chart 75

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 and in %

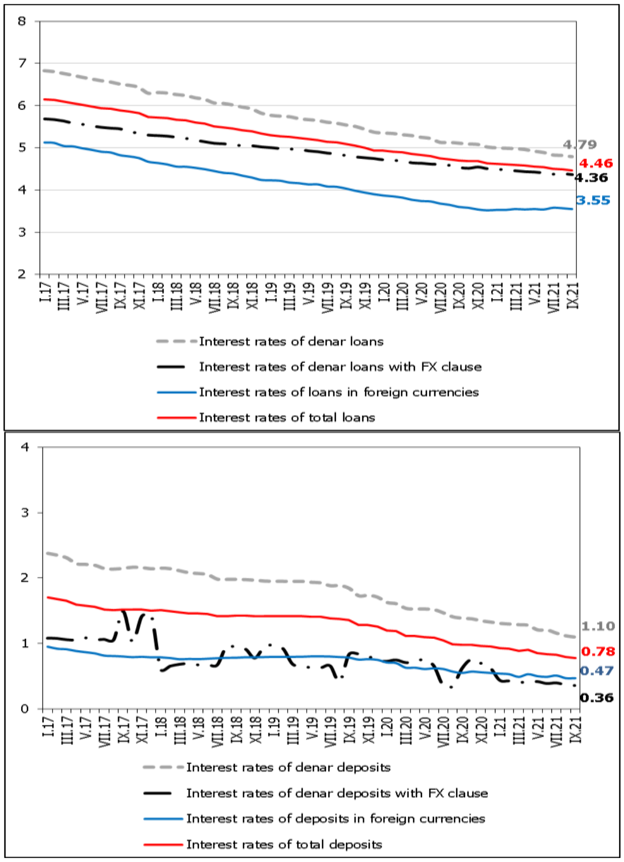


Source: National Bank, based on data submitted by banks.

In the first nine months of 2021, impairment cost for financial and non-financial assets decreased by Denar 206 million or 6.5%. This reduction mostly results from impairment costs of financial assets (which decreased by Denar 140 million, or by 4.5%), contributed mainly by the release of impairment of loans and placements (which is higher by Denar 2,074 million compared to the same period last year), due to the higher amount of collected claims. At the same time, the banks maintained the high level of prudence regarding the provisioning of placements, which is confirmed by the relatively high growth and the gross amount of the impairment of loans and placements, by Denar 1,965 million, compared to the same period of the previous year.

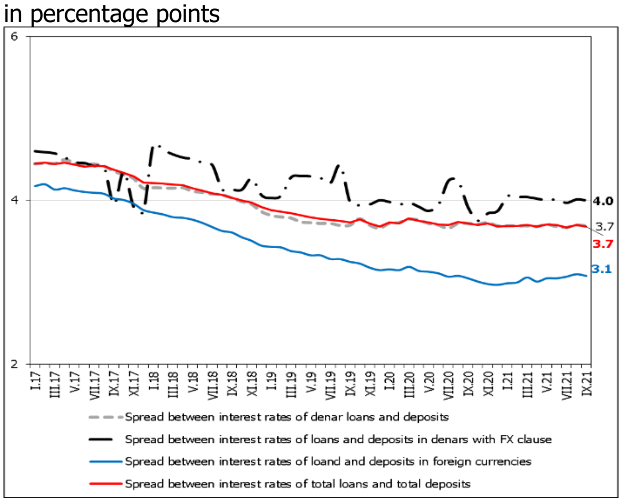
The net impairment cost of non-financial assets decreased compared to the same period in 2020 by one and a half by Denar 66 million and as of 30.9.2021, it had a status of income item in the amount of Denar 41 million. This movement arises from the higher release of impairment of non-financial assets, and as a result of the sale of foreclosed property on the one hand (for Denar 40 million), but also due to lower costs of impairment, on the other (by Denar 26 million).

Chart 76
Lending (top) and deposit (bottom) interest rates
in %



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

Chart 77
Interest spread
in percentage points



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

2.2. Movements in interest rates and interest rate spread

The downward banks' lending and deposit interest rates continued. Thus, the weighted average lending interest rate of banks for the first nine months of 2021 was 4.6% and is lower by 0.3 percentage points compared to the same period of the previous year. At the same time, the weighted average deposit interest rate decreased by 0.2 percentage points, to the level of 0.9%. Analyzed by currency characteristics, the average interest rates on all currencies decreased almost identically, with a slightly larger decrease in the denar interest rates, both on loans and deposits.

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

ANNEX