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 NORTH MACEDONIA IN THE SECOND QUARTER OF 2023

October 2023

Contents

I. Summary

The macroeconomic environment in which the banks operate is affected by global factors, which still indicate uncertainty given the protracted war in Ukraine, followed by reduced, yet high inflation rates and tightened financial and lending conditions. In such circumstances, the National Bank continued to tighten the monetary policy (the inflation increased to 6% as of June 2023, i.e. 6.15% as of August 2023), to stabilize inflation and inflation expectations driven by external price shocks. The changes to the reserve requirement add to such monetary setup, aimed at increasing denar savings, as well as by taken macro-prudential measures, which additionally strengthened the banking system.

Following the fall in the first quarter of the year, the balance sheet of the banking system increased considerably in the second quarter of 2023 (3.4%), thus accelerating the annual growth rate, to a level of 8.6%. Such movements mostly reflect the growth in deposits of non-financial entities, which accelerated, both quarterly (4%) and annually (11.9%). Corporate deposits made a large contribution to the quarterly growth of total deposits, albeit household deposits significantly grew. At the same time, favorable movements continue in terms of maturity and currency structure of savings (growth in long-term and denar deposits), reflecting the effects of the measures taken by the National Bank and stabilized expectations of economic agents. On the assets side, banks were vigilant and increased the liquidity assets almost equally as the loan placements. Following the decline in the first quarter of the year (primarily due to seasonal effects), loans to non-financial entities increased in the second quarter by 2.6%, mostly due to corporate loans. Amid tightening of credit conditions and reduced demand for loans from households, the annual credit growth was slower compared to the last year and equaled 6.4%. However, this is a moderate growth rate which is higher than the average in the EU countries (around 1.3% in the second quarter of 2023).

The solvency of the banking system improved. The capital adequacy ratio increased by 0.2 percentage points quarterly, to the record high of 18.2% in the last sixteen years. Analyzing the purpose, around 35% of own funds of the banking system accounts for capital buffers or are "free" above the requirement, which banks may use to deal with different challenges in the downward movements during economic cycles and in crisis. The stress testing shows that the banking system is resilient to the simulated shocks.

For the purpose of further strengthening of the banking system resilience, amid lack of materialization of risks to the balance sheets of banks and solid profitability, the National Bank increased the level of countercyclical capital buffer of banks, multiple times. As of 1 August this year, the countercyclical capital buffer of banks equaled 0.5%, while from the beginning of 2024 it will amount to 0.75%. At the end of June 2023, the countercyclical capital buffer rate was increased by additional 0.25 percentage points to 1%, effective as of 1.07.2024. **The increased capital requirements require from banks to maintain the trend of improvement of the banking system solvency in the following period.**

Liquidity indicators improved in the second quarter of 2023 and are satisfactory. Supported by the strong deposit growth, the liquid assets of the banking system increased in the second quarter of 2023 (6.4%), following the decline in the previous quarter. Thus, the indicators for liquidity monitoring and assessment recorded certain upward shifts and remained within their

stable, satisfactory levels. Thus, liquid assets account for 29.9% of total banks' assets (29.1% as of 31.3.2023), while the coverage of short-term liabilities and household deposits with liquid assets amounts to 48.7% and 60.1%, respectively (as of 31.3.2023, these indicators equaled 47.3% and 57.9%, respectively). The liquidity coverage ratio of the banking system amounts to 275.3%, which is significantly higher than the regulatory minimum (100%) and confirms the satisfactory volume of liquidity available to the Macedonian banking system. The results of the stress tests indicate satisfactory resilience of the banking system to the assumed extreme, individual and combined liquidity outflows.

The banks' loan portfolio maintained its quality level. Despite the quarterly growth of non-performing loans to non-financial entities, their share in total loans slightly increased by 0.1 percentage point, to 2.9%. Non-performing corporate loans grew by 4.1%, thus their share in total loans to these clients minimally increased to 3.9%. Analyzed by individual activities, the growth of non-performing corporate loans was mostly driven by the increase in these loans to clients from the textile industry, retail and wholesale trade, construction and chemical industry. Non-performing household loans increased by 3.1%, which had no effect on their share in total household loans, which remained unchanged (1.9%). Analyzing individual loan products, non-performing household loans moderately increased in most of the products, yet the largest part of the quarterly growth accounts for non-performing consumer loans. In April 2023, borrower-based macroprudential measures were taken. More specifically, measures were taken to prevent the over-indebtedness of natural persons and to mitigate risks related to the retail market by limiting the DSTI ratio (50%-55%, depending on whether they are denar or foreign currency loans) and LTV ratio (85%, amid new or increase of the exposure secured by residential real estate). These macroprudential measures, effective as of 1.7.2023, prevent accumulation of systemic risks in the household segment and real estate market, which could be materialized as loan losses with banks.

In the second quarter of this year, the presence of currency component (foreign currency and incorporation of foreign currency in banks' products) in banks' balance sheets recorded further decrease and currently amounts to 42-43%. These changes are also supported by the amendments to the **reserve requirement**, which were aimed at increasing denarization which registered positive trends. In order to further support the process of denarization of the banks' balance sheets, in 2023 the National Bank Council additionally adopted a decision to increase the reserve requirement rate of foreign currency liabilities from 19% to 20% and the reserve requirement rate of denar liabilities with FX clause from 50% to 100%, as well as the percentage of maintaining reserve requirement from foreign currency liabilities maintained in euros, from 77% to 80%. **The banking system exposure to currency risk is more than three times lower than the regulatory limit of 30% of own funds, and as of 30.06.2023 it amounts to 9.6%.**

The banks' exposure to interest rate risk in the banking book is within the prescribed limit (20%) and as of 30.6.2023 equals 9% of own funds, which is a quarterly decline of 1.5 percentage points. The rising trend of interest rates, which started last year and continued in 2023, coupled with the fact that loans with variable and adjustable interest rate prevail in the banking book of banks, increases the importance of bank exposure to indirect interest rate risk through borrowers, due to the possibility for reducing their creditworthiness amid growth in interest-bearing debt.

In the first half of 2023, the profit of the domestic banking system increased by 35.3%, compared to the same period last year. The increased profit mostly results from the growth of net interest income, with a certain contribution from the increased net commission income. The period of faster growth of banks' income was used to strengthen the capacity to deal with future credit losses, which is evident through increased impairment losses (34%). The ratios of return on average assets and average equity and reserves equal 2.1% and 17.1%, respectively, which is an improvement compared to the same period last year (1.7% and 14.3%, respectively). The operational efficiency indicators generally improved, despite the increase in the operating costs of 13.5%, compared to the preceding year.

The macroeconomic landscape in the second quarter of 2023 is mainly as expected, but the risks from the uncertain and volatile environment related to the war in Ukraine remain pronounced and adequately affect the environment in which the banking system operates, its activities and risk profile. The uncertain environment, together with the gradual tightening of financial conditions, requires further careful monitoring of credit risk. The National Bank closely monitors all events and is ready to take all necessary measures within its competence, whenever needed.

II. Structure of the banking system

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

As of 30.6.2023, the number of banks in the Republic of North Macedonia remained unchanged compared to the previous quarter and equaled thirteen banks. Nine banks are in predominant foreign ownership, five of which are foreign bank subsidiaries.

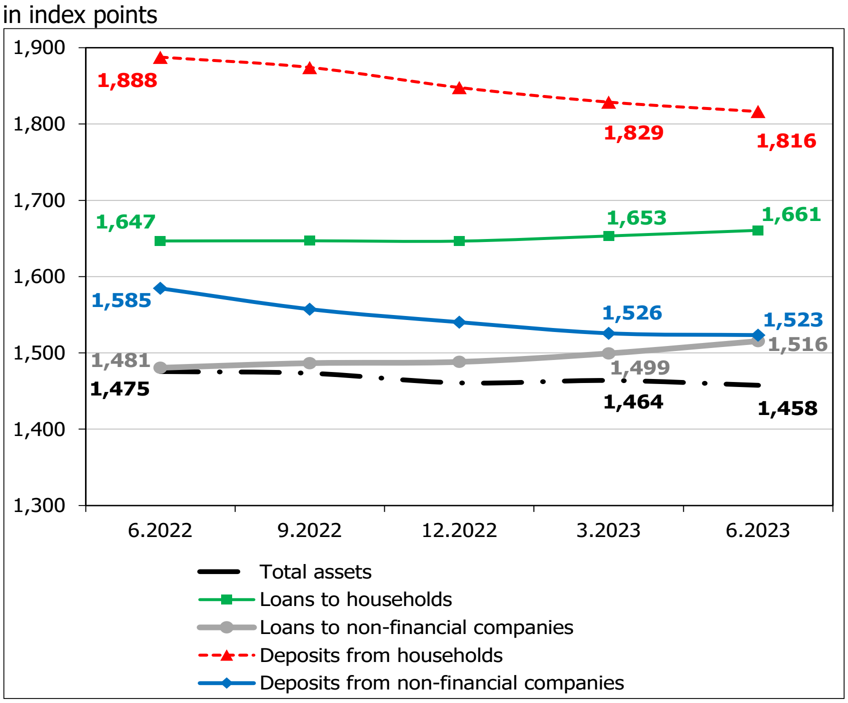
Table 1 Structure of major balance sheet positions by banks' majority ownership (as of 30.6.2023)
in millions of denars and in %

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**	**68,836**	**76.7%**	**506,167**	**72.4%**	**352,636**	**82.0%**	**358,306**	**70.3%**	**23,938**	**75.9%**	**8,415**	**72.5%**
- subsidiaries of foreign banks	*5*	*60,184*	*67.1%*	*422,689*	*60.5%*	*298,285*	*69.3%*	*301,668*	*59.2%*	*20,245*	*64.2%*	*7,415*	*63.9%*
- Austria	1	9,667	10.8%	87,726	12.5%	63,169	14.7%	53,543	10.5%	3,409	10.8%	1,389	12.0%
- Bulgaria	1	1,317	1.5%	11,076	1.6%	7,504	1.7%	8,497	1.7%	436	1.4%	46	0.4%
- Greece	1	22,208	24.7%	126,754	18.1%	90,743	21.1%	95,725	18.8%	6,819	21.6%	2,480	21.4%
- Slovenia	1	13,598	15.2%	111,034	15.9%	76,360	17.7%	87,508	17.2%	5,652	17.9%	2,496	21.5%
- Turkey	1	13,395	14.9%	86,100	12.3%	60,508	14.1%	56,394	11.1%	3,929	12.5%	1,005	8.7%
- other banks in dominant foreign ownership	*4*	*8,653*	*9.6%*	*83,478*	*11.9%*	*54,352*	*12.6%*	*56,639*	*11.1%*	*3,693*	*11.7%*	*1,000*	*8.6%*
- Bulgaria	2	3,834	4.3%	30,079	4.3%	19,133	4.4%	20,789	4.1%	1,752	5.6%	498	4.3%
- Germany	1	3,991	4.4%	44,390	6.3%	29,738	6.9%	28,840	5.7%	1,500	4.8%	368	3.2%
- Switzerland	1	828	0.9%	9,009	1.3%	5,481	1.3%	7,010	1.4%	442	1.4%	135	1.2%
Banks in dominant ownership of domestic shareholders	**4**	**20,895**	**23.3%**	**192,893**	**27.6%**	**77,577**	**18.0%**	**151,520**	**29.7%**	**7,588**	**24.1%**	**3,197**	**27.5%**
- private ownership	*3*	*17,355*	*19.3%*	*177,594*	*25.4%*	*77,394*	*18.0%*	*151,520*	*29.7%*	*7,392*	*23.4%*	*3,119*	*26.9%*
- state ownership	*1*	*3,540*	*3.9%*	*15,299*	*2.2%*	*182*	*0.0%*	*0*	*0.0%*	*195*	*0.6%*	*78*	*0.7%*
Total:	**13**	**89,731**	**100.0%**	**699,060**	**100.0%**	**430,213**	**100.0%**	**509,826**	**100.0%**	**31,526**	**100.0%**	**11,612**	**100.0%**

Source: National Bank, based on the data submitted by banks.
*Total income and financial result are calculated for the last twelve months (30.6.2022-30.6.2023).

Banks with dominant foreign ownership in the structure of banking system's major balance sheets positions prevailed in the second quarter of 2023 as well, with an additional slight increase. The exception is the financial result, where the share of these banks was lower by 1.8 percentage points compared to the previous quarter. Banks with foreign ownership still have the largest share in total loans to non-financial sector, which amounts to 82%, with a growth of 0.2 percentage points.

Chart 1 Herfindahl index



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

The value of the Herfindahl index[1] **recorded slight changes in the second quarter of 2023.** The value of this index in household deposits remains within the acceptable level of 1,800 index points (which, after a longer period, was exceeded in the third quarter of 2020), yet it continuously decreased, thus gradually approaching the acceptable index level. In all other categories of activities, the index is **within the acceptable values**[2].

Table 2 Concentration ratios of major balance sheet positions in the three and the five banks with the largest share in these positions

in %

Position	30.06.2023		31.03.2023	
	CR3	**CR5**	**CR3**	**CR5**
Total assets	56.3	81.2	57.0	81.1
Loans to households	61.9	83.8	61.6	83.6
Loans to non-financial companies	52.6	81.7	52.2	81.0
Deposits from households	69.1	85.8	69.4	85.8
Deposits from non-financial companies	54.5	81.6	54.1	81.8
Financial result*	68.9	89.5	71.5	90.3
Total revenues*	59.4	82.7	60.2	82.7

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

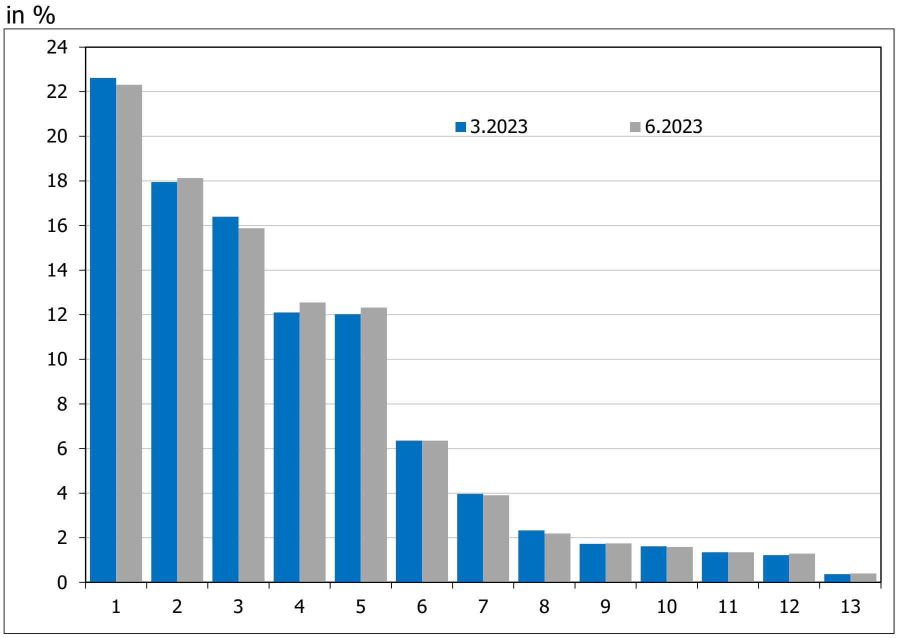
*Total income and financial result are calculated for the last twelve months (30.6.2022-30.6.2023).

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

[2] The level of concentration is considered acceptable when the index ranges from 1,000 to 1,800 points.

The concentration indicators of the three and the five banks with largest share in individual banks' balance sheets positions registered slight changes on a quarterly basis. The reduction of the concentration of the financial result is more pronounced in the share of the three and the five banks with the highest financial result which reduced by 2.6 and 0.8 percentage points, respectively.

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



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

The difference in the size of the banks according to the amount of their assets is still high, while the spread between the bank with highest market share (22.3%) and the bank with the lowest market share (0.4%) narrowed by 0.3 percentage points, compared to the previous quarter.

III. Bank risks

1. Credit risk

In the second quarter of 2023, amid moderate economic growth and uncertainty surrounding the protracted conflict in Ukraine, high yet reduced inflation rate and further monetary policy tightening, the quality of credit portfolio was maintained. The rate of non-performing loans is stable at 2.9%. Minor deterioration of this rate by 0.1 percentage points was registered in the corporate sector, where the share of non-performing loans amounted to 3.9% The rate of non-performing household loans is stable, at 1.9% for a third quarter in a row. Given an assumption for total default on non-performing loans, the possible risks to solvency and banking system stability are limited due to high coverage of non-performing loans with impairment by banks, whereby a minimum amount of banking system's own funds would be used amid possible credit risk materialization. The results of the credit risk stress-test simulations confirm the banking sector resilience to relatively extreme deteriorations of the credit portfolio risk.

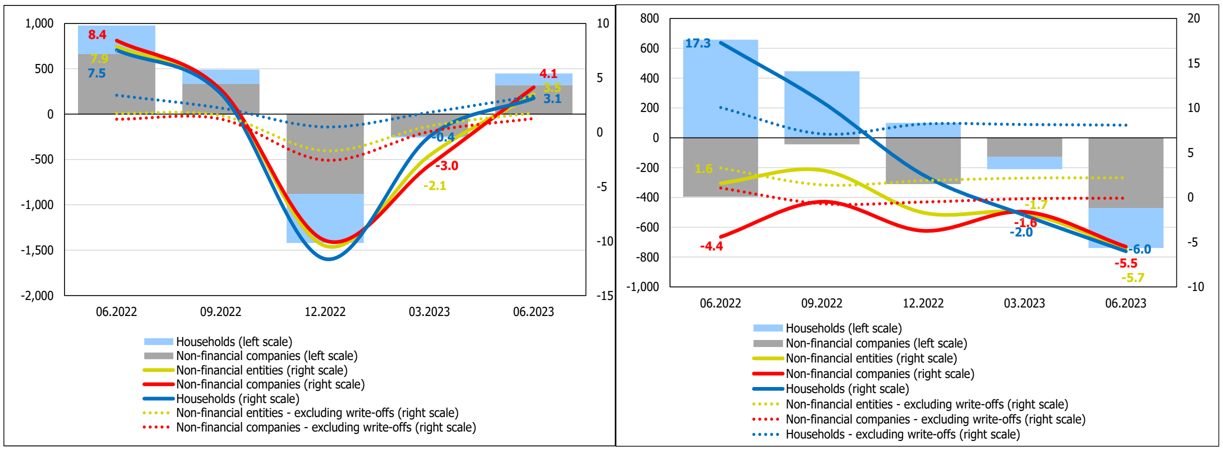
Other aspects of the credit risk analysis indicate slight improvement in the quality of credit portfolio. A significant slowdown in the growth of prolonged loans was evident in the second quarter of 2023, which are mainly part of the portfolio of non-financial companies and currently do not pose a significant risk to the domestic banking system, due to their relatively low share in total loans. The restructured loans minimally decreased on a quarterly basis and for now, do not represent a significant risk factor for more pronounced deterioration in the quality of credit portfolio. However, risks of the uncertain and volatile environment and the prolonged monetary policy tightening require from banks to remain vigilant in the credit risk management, especially in restructuring, and creating expectation for credit losses for these loans and the overall credit portfolio.

1.1. Materialization of credit risk in banks' balance sheets

In the second quarter of 2023, total non-performing loans to non-financial sector increased by 3.5% (or by Denar 419 million), as opposed to the decline in the previous two quarters. By isolating the effect of net write-offs, non-performing loans to non-financial sector increased by 1.8% (Denar 730 million), amid reduced collection of written-off claims, and a slight increase in mandatory write-offs compared to the previous quarter. The increase in non-performing loans in the second quarter of 2023, mostly stems from non-financial corporations in *industry.*

Chart 3. Quarterly (left) and annual (right) growth of non-performing loans, by sector

in millions of denars in %



Source: National Bank, based on the 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 - 30.6.2023. Starting from December 2019, the data also contains the collected compulsorily written-off loans.

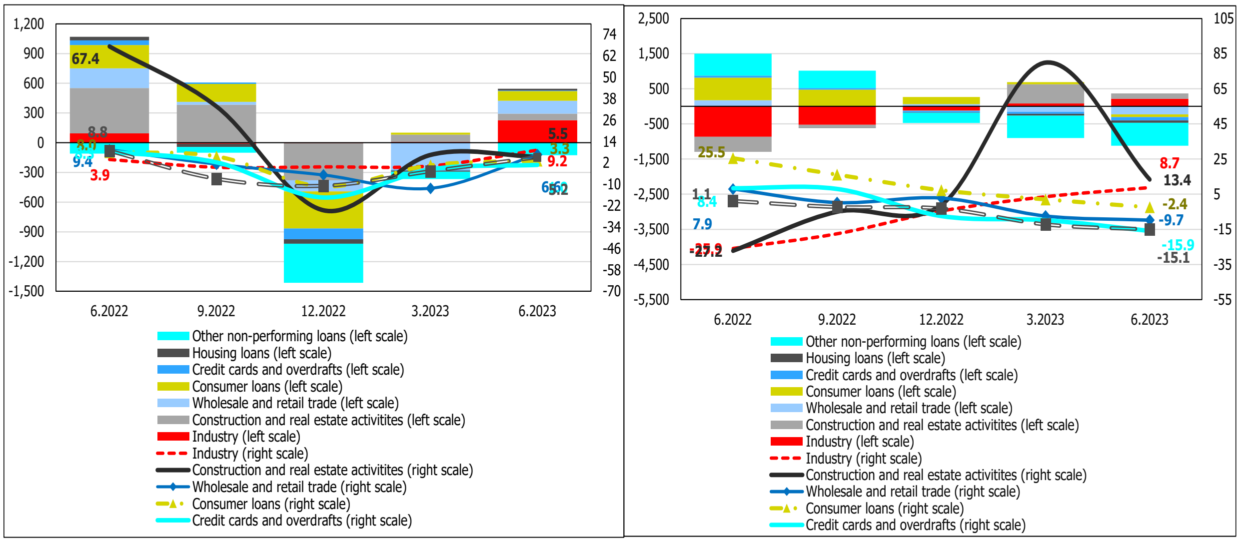
At the end of the first half of 2023, more than three quarters of the quarterly growth of non-performing portfolio stem from non-financial corporations[3], whose non-performing loans grew quarterly (by 4.1% or by Denar 320 million[4]). This follows their decline in the previous quarter, while the increase is twice as slow compared to the second quarter of the previous year. The increase in non-performing loans was noted in most of the economic activities, mainly in textile industry (Denar 223 million or 145.8%, wholesale and retail trade (Denar 130 million or 6.6%), construction (Denar 62 million or 5.1%) and chemical industry (Denar 56 million or 25.7%). In contrast, decrease in non-performing loans was noted in transport and storage, service sector and other manufacturing industry. The high quarterly growth rate of non-performing loans in the industry almost entirely reflects the non-performing exposure to one company in the textile industry.

[3] Non-performing corporate loans prevail in the total non-performing portfolio and their share additionally grew to the level of 65.3% at the end of the first half of 2023, compared to 64.9% as of 31.3.2023.
[4] By isolating the effect of mandatory net write-offs, non-performing corporate loans increase by 1.3%.

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

in millions of denars

in %



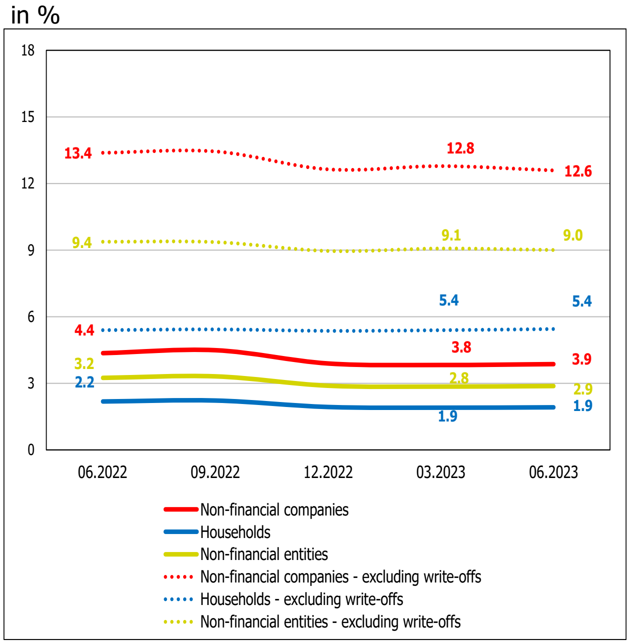
Source: National Bank's Credit Registry, based on data submitted by banks.

After the decline in the previous quarter (-0.4%), non-performing household loans increased in the second quarter of 2023 by 3.1% or by Denar 127 million[5], which is twice as slow as the same quarter of 2022 (7.5%). In this quarter, three quarters of the growth in non-performing household loans stem from consumer loans, which increased by 3.3% or by Denar 98 million, which is an acceleration compared to the previous quarter (increase of 0.7% or Denar 20 million). Thus, non-performing claims based on overdrafts registered an increase as well, at the same pace as in the previous quarter (by 3.8% or by Denar 8 million). Also, non-performing loans to natural person for financing the purchase of residential and commercial properties increased by 7.5% (or Denar 28 million) in the second quarter of 2023, with an increase in non-performing loans to retailers (by around Denar 6 million). A minimal decrease (of 1.2%) in this category was registered only in claims on credit cards.

Amid further solid quarterly growth of the credit support by banks[6] (2.6% quarterly), despite the growth in non-performing loans, the rate of non-performing loans remained at the level of 2.9%, which is minimally higher compared to the previous quarter (2.8%) and lower by 0.3 percentage points, compared to 30.6.2022[7]. The initiated improvement from the previous quarter in the share of loans classified in B and C -regular risk categories (as approximation of the so called *Phase 2* loans with significant increased credit risk in accordance with IFRS-9) in total loans to non-financial sector continued this quarter as well (mostly due to increased credit support by banks).

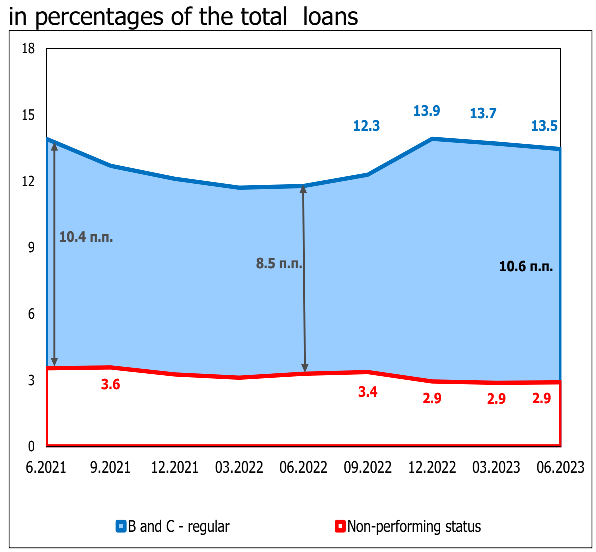
[5]If we exclude the effect of mandatory net write-offs, the growth of non-performing household loans increases and amounts to 3.3%.
[6]Total loans to non-financial entities increased by 2.6% quarterly, while the annual growth rate amounted to 6.4% and is slightly above forecasts. The credit growth rate is expected to slow down by the end of the year, amid tightened financial conditions and reduced demand from the corporate sector due to primary commodity price drop.
[7]If we exclude the effect of the mandatory write-offs, the share of non-performing to total loans decreased minimally to 9%, which is a record low within the rates in the past decade, i.e. remains below its ten-year average of 10.8%.

Chart 5 Rate of non-performing loans of non-financial corporations, by sector



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

Chart 6 Gap between regular loans in risk categories B and C and non-performing loans, by share in total loans



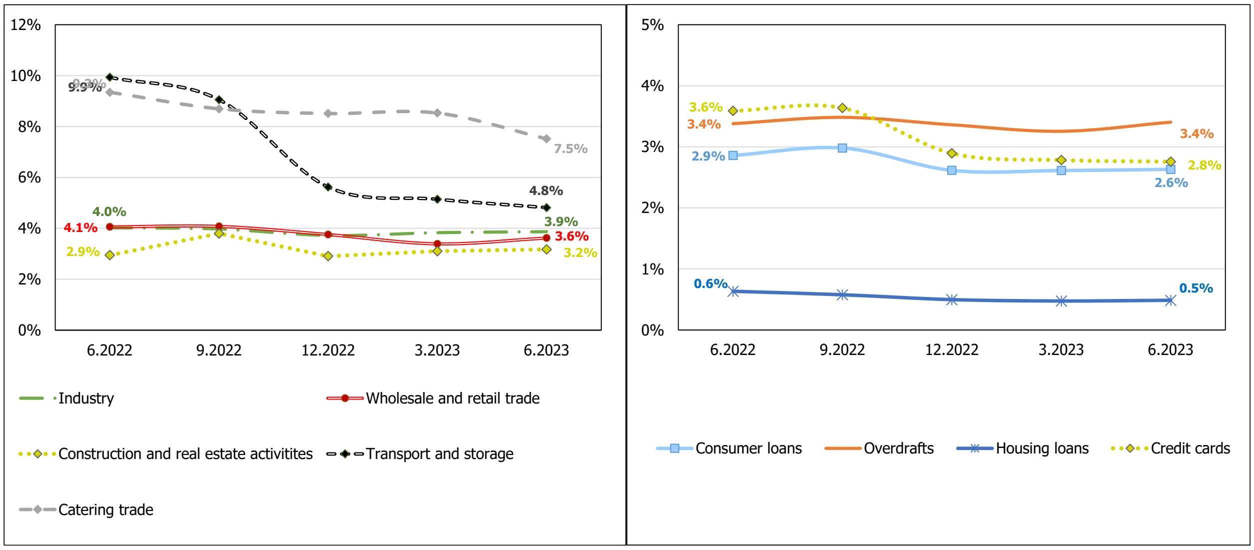
Source: National Bank's Credit Registry, based on data submitted by banks.
Regular loans classified in risk categories B and C and non-performing loans are approximation of the so called phase 2 and phase 3 loans according to IFRS 9, respectively. Slight differences in NPL rates compared to the Chart on the left, are due to the two different data sources.

In the corporate loan portfolio, the rate of non-performing loans minimally increased by 0.1 percentage points and reached 3.9%[8]. Observing individual economic activities, the rate of non-performing loans recorded divergent movements. Thus, the most pronounced deterioration of the non-performing loans rate by 4.8 percentage points was noted in textile industry, which reflects the significant increase in non-performing loans in this activity. Moreover, certain increase in this rate was noted in services related to information and communication, the chemical industry, production of building materials and processing fuel, and wholesale and retail trade (by 0.6, 0.5 and 0.2 percentage points, respectively). On the other hand, the service activities in the field of arts, entertainment and recreation and other services, which were previously the most affected by the pandemics, continue with the trend of reduced non-performing loans rate.

[8]If we exclude the effect of the mandatory net write-offs, the share of non-performing to total corporate loans reduced to 12.6%, which is the record low registered in the past decade, and remains below its ten-year average.

Chart 7 Rate of non-performing loans, by activity and credit product

in %



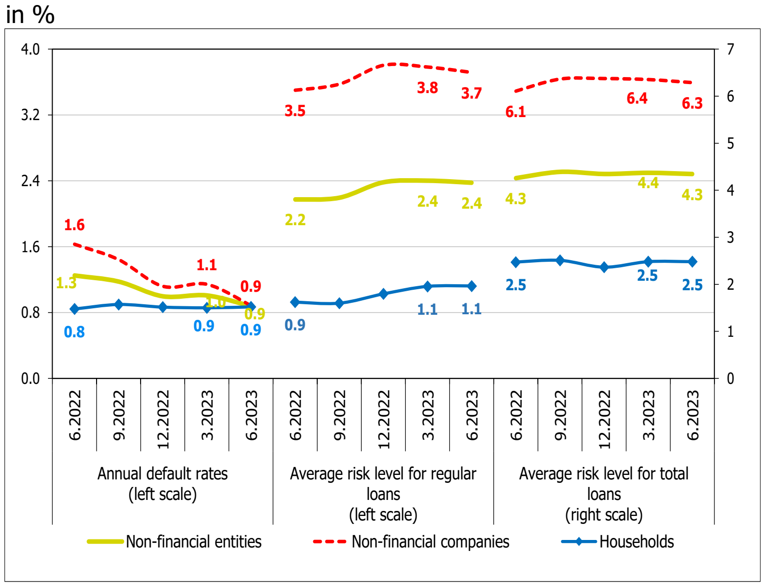
Source: National Bank's Credit Registry, based on data submitted by banks.

For a third quarter in a row, the rate of non-performing loans in the household credit portfolio remains unchanged at the level of 1.9%[9]**.** The rates of non-performing loans in the two largest categories of household loans, consumer and housing loans, also remain unchanged for a third quarter in a row at 2.6% and 0.5%, respectively. Analyzing the purpose, during the second quarter, this rate is higher in the overdrafts of payment accounts and car loans (by 0.2 and 0.3 percentage points on a quarterly basis), as well as in retail trade (by 0.5 percentage points).

As of 30.6.2023, the annual default rate of regular loans to non-financial sector reduced compared to the previous quarter, same as with legal entities, while with households it remained unchanged, which means that the three rates have evened out and reduced to 0.9%. Banks have maintained average provisioning of loans at the same level, as at the end of the previous quarter, in almost all categories of loans, analyzing the regularity in settling liabilities and sector of the clients. Thus, a slight decrease of 0.1 percentage points was registered in the average level of risk in regular and total corporate loans. Banks still consider that loan portfolio risks to corporate sector are significantly higher compared to placements to the household sector. The expected credit losses for regular loans to non-financial corporations equal 3.7%, which is significantly higher compared to households (1.1%) at the end of the second quarter of 2023, amid equal default rates for both sectors.

[9]If we exclude the effect of the mandatory net write-offs, the rate of non-performing household loans equals 5.4% and is slightly above its 10-year moving average.

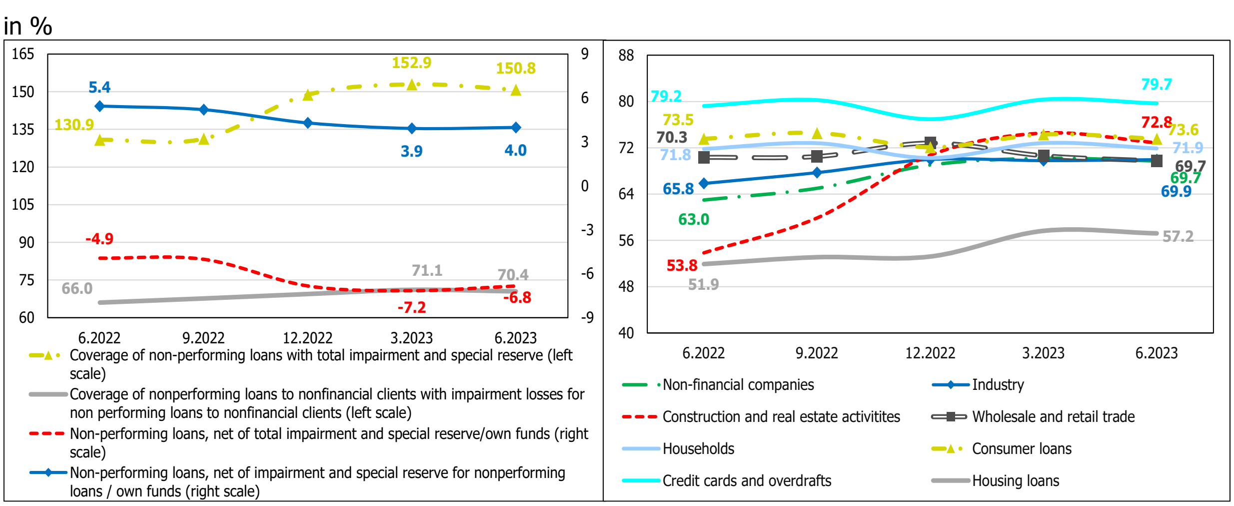
Chart 8 Annual rates of default and average risk level of performing and total loans, by sector



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

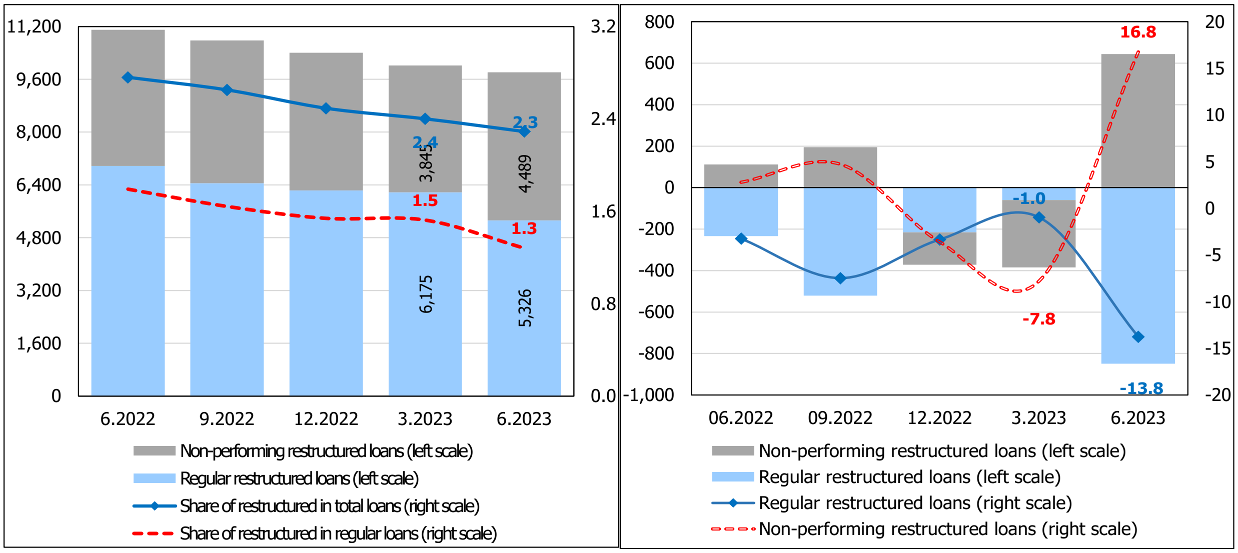
The potential total default on non-performing loans, i.e. the volume of unexpected credit losses on this basis have a limited impact on the solvency of the domestic banking system. This is a result of the solid coverage of non-performing loans with impairment for these loans, which, although at the end of the second quarter of 2023 registered a slight decrease of 0.6 percentage points compared to the previous quarter, remains at a solid level of 70.4%. Consequently, the non-provisioned amount of non-performing loans is low and accounts for only 4% of banking system own funds and compared to the previous quarter registered a slight deterioration of 0.1 percentage points. Thus, even amid assumption of total default of non-performing loans, the banking system solvency will not be jeopardized.

Chart 9 Coverage of non-performing loans with impairment (left) and by activity and credit product (right)



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

Chart 10 Restructured loans of non-financial entities (left) and quarterly growth (right)

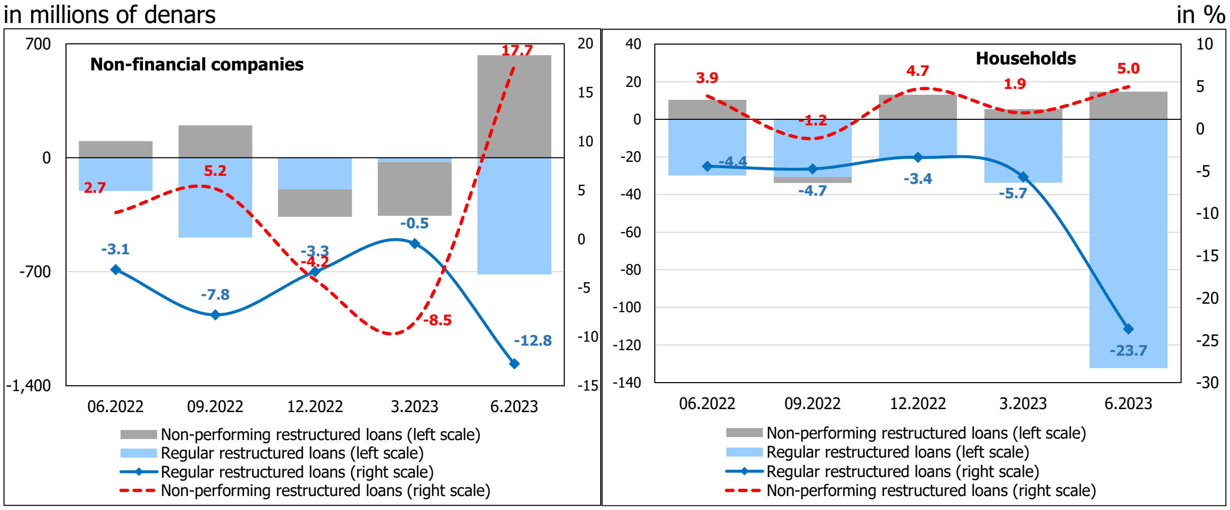


Source: National Bank's Credit Registry, based on data submitted by banks.

Restructured loans *per se* are loans that need to be followed more closely, because restructuring is performed on customer claims who have deteriorated financial condition. In fact, these loans are a possible factor for growth of non-performing loans if the restructuring does not achieve the expected goals of adjusting the credit burden to the financial standing of the client. **The share of restructures loans in total and regular loans is rather small and amounts to 2.3% and 1.3%, respectively, while their amount decreased in the past one-year period,** which is also evident during the second quarter of 2023. These loans, however, seek particularly close attention and monitoring, since the unsuccessful restructuring would mean new non-performing loans. The higher expected losses allocated for regular restructured loans are confirmation for the higher risk from these loans perceived by banks. Thus, their coverage with impairment as of 30.6.2023 increased quarterly to 23.1% and was significantly higher compared to the coverage with impairment of total regular loans of 2.4%[10]. In contrast, the coverage of non-performing restructured loans with separate provisions (of 67.5%) is similar to the coverage of total non-performing loans (of 70.4%).

[10]The coverage with impairment of regular restructured loans amounted to 20.6%, as opposed to 2.4% for total regular loans as of 31.3.2023.

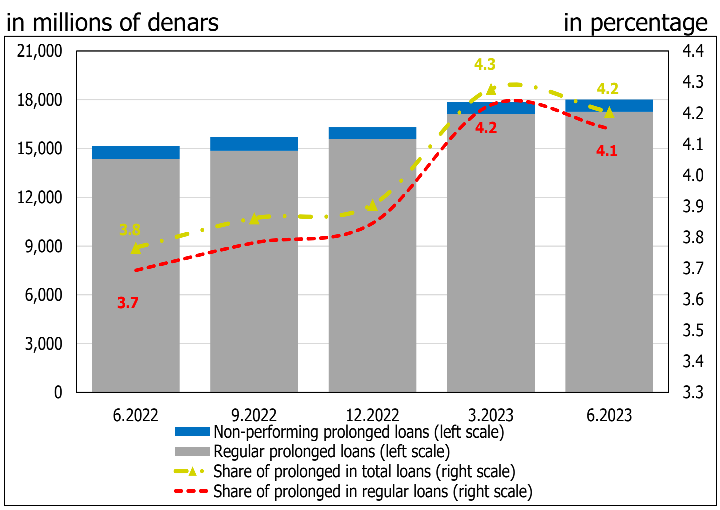
Chart 11 Quarterly growth of restructured loans, by sector



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

Analyzing sectors, more significant downward trend was registered in restructured corporate loans (decrease of 12.8% or Denar 717 million) and household loans (decrease of 23.7% or Denar 132 million). Restructured loans to non-financial corporations have a higher average risk level (44.8%), as well as a higher rate of non-performing loans (46%), compared to restructured loans to household sector, while the restructuring is mainly registered in non-financial corporations, which account for 92% of the total restructured credit portfolio[11].

Chart 12 Prolonged loans to non-financial entities, by status



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

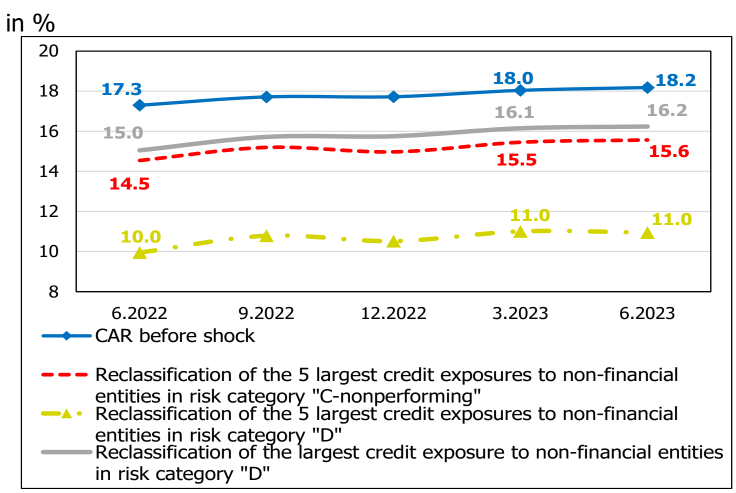
[11]As of 30.6.2023, the share of restructured loans in credit portfolios of non-financial legal entities and households was 4.3% and 0.3%, respectively.

In the second quarter of 2023, regular prolonged loans (where the prolonged maturity, in accordance with the regulation, is not performed due to clients' financial difficulties) recorded a slight growth, following the sharp increase in the previous quarter. Thus, total prolonged loans increased by a minimum of 0.9%, that is Denar 154 million quarterly, which is a decelerated growth compared to the end of the first quarter of 2023 (9.5%, i.e. Denar 1,551 million). Within their structure, regular prolonged loans (share of 95.9%) prevail, which mostly conditioned the quarterly growth of total prolonged loans. Analyzing by sector, the prolonged maturity was mostly registered in non-financial corporations (share of 91.3%). The prolongation may be a potential risk source, especially if used as a way to facilitate the financial burden of non-financial corporations in overcoming current shocks. On the other hand, the materialization of this risk would have a limited effect, due to the currently low share of prolonged loans in the total credit portfolio of banks (4.2% at the end of the second quarter of 2023). Moreover, this share is higher in the portfolio of loans to non-financial corporations, where the share of prolonged loans is 7.9%[12], compared to the household sector, where the share of these loans is insignificant and stable (0.7%)[13].

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

The results from the simulations of the banking system resilience to shocks which increase the credit risk confirm the resilience of the domestic banking system. The capital adequacy ratio of the banking system does not fall below 8% in individual hypothetical simulations. In case of extreme 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 5.3 percentage points compared to the initial level, i.e. from 18.2% to 12.9%, which is unchanged compared to the previous quarter.

Chart 13 Effects of the reclassification of the largest credit exposures to non-financial entities (including connected parties) to higher risk category on the capital adequacy ratio



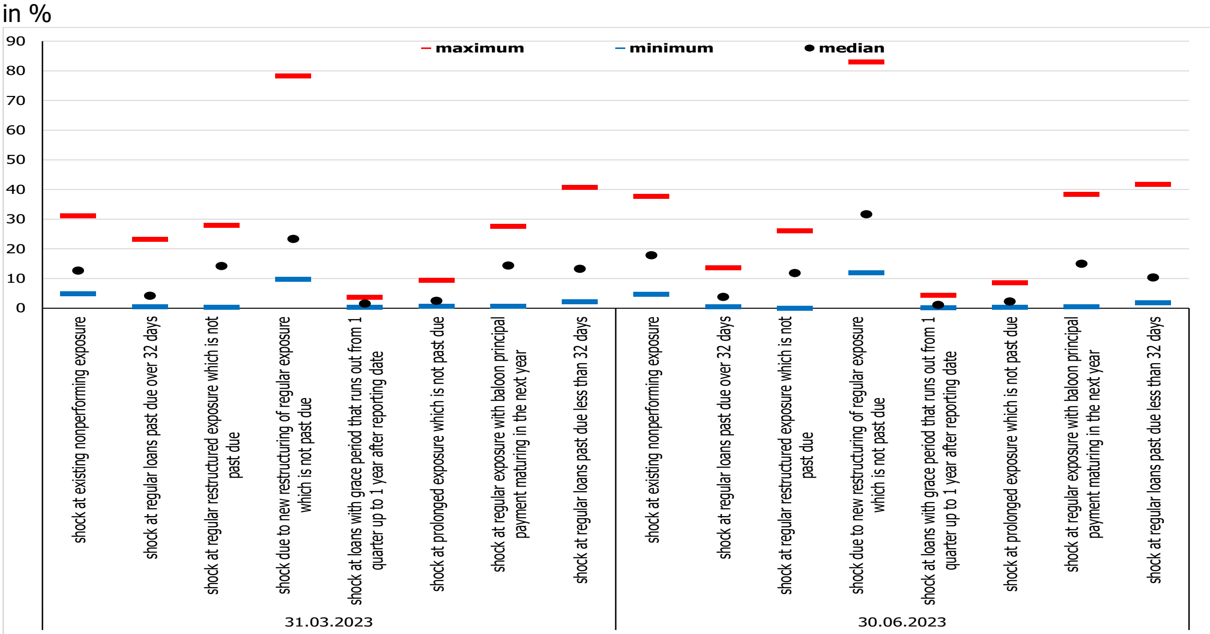
Source: National Bank's Credit Registry, based on data submitted by banks.

[12] In non-financial corporations, the average risk of prolonged loans equals 7.7%, while the non-performing loans rate is 4.5%.
[13] In households, the average risk of prolonged loans is 0.9%, while the non-performing loans rate equals 0.5%.

Simulated materialization of concentration risk in the credit portfolio, amid assumed migration of the five largest clients from non-financial sector of each bank, from the risk category (mostly A), to risk category B- non-performing, reduces the capital adequacy ratio of the banking system from the initial 18.2% to 15.6%, which is relatively similar to the last quarter. As of 30.6.2023, the reduction of capital adequacy ratio amid such scenario would range from 1.1 percentage point to 4.7 percentage points, and would not drop below 8% in any of the banks.

The banking system resilience is also examined by extreme simulation based on a combination of eight[14] hypothetical shocks of worsening the quality of credit portfolio of the non-financial sector.

Chart 14 Distribution of the new expected credit losses, by shock
in %



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

[14]The eight hypothetical shocks of risk exposure to non-financial entities for each bank are as follows: 1. Total default of the current non-performing credit exposure; 2. Part of the regular loans with a current delay in repayment longer than 32 days shall receive a non-performing status. The part that receives a non-performing status shall be determined in the amount of the 2*ten-year average of the exposure transition rate from the risk category B and C regular, to the risk categories C non-performing, D and E with each bank individually; 3. Total regular restructured exposure without a current delay in repayment of liabilities shall receive a non-performing status; 4. New restructuring of the regular credit exposure without a current delay in repayment of liabilities, reduced credit exposure with residual maturity which is due next year. The scope of new restructuring shall be based on the 2*ten-year average of the exposure transition rate from risk category A to B and C regular, with each bank individually; 5. Part of the loans with grace period which expires after one quarter to one year after the reporting date receive a non-performing status. The part that receives a non-performing status is determined in the amount of the 2*ten-year average of the exposure transition rate from risk categories A, B and C regular, to risk category C non-performing, risk categories D and E with each bank individually; 6. Part of the prolonged exposure without a current delay in the repayment of liabilities receives a non-performing status which is determined in the amount of the 2*ten-year average of the exposure transition rate from the risk category A, B and C regular to risk categories C non-performing, D and E with each bank individually; 7. Part of the regular, non-restructured and non-prolonged credit exposure without a delay in the repayment of liabilities and with a residual maturity which is due in the next year, receives a non-performing status. The part that receives non-performing status is determined in the amount of the sum of the 2*ten-year average of the amount exposure transition from risk category A into risk categories B non-performing, C and D in each bank individually and the 2*ten-year average of the amount exposure transition from risk category A into risk categories B and C regular, in each bank individually; and 8. Part of the regular loans with a repayment delay up to 32 days increases the period of delay more than 32 days. The part which increases the delay period is determined in the amount of the 2*ten-year average of the exposure amount transition from a risk category A into B and C-regular in each bank individually.
The coverage with impairment following each of the eight shocks is the same as before the shock.

Even in the case of this extreme simulation, the capital adequacy of the banking system does not fall below the prescribed minimum. Upon this simulation, the capital adequacy ratio reduces by 5.6 percentage points, to 12.34%[15] (5.5 percentage points and 12.28%, respectively at the end of the first quarter of 2023). The shocks would absorb 31% of the initial capital adequacy ratio, which is minimally above the level of the previous quarter (30.8% of the initial level of capital adequacy ratio). The largest impact on the capital adequacy ratio was made by the assumed new restructuring of the credit risk exposure which would be carried out by banks on regular exposures without current delay in repayment of liabilities (contribution of 39.4% in the capital adequacy reduction), followed by the worsened quality of the credit exposure with a residual maturity which is due next year (contribution of 19.1%) and total default on the current non-performing exposure (contribution of 13.5%)[16].

[15]The initial capital adequacy ratio of the banking system is without DBNM AD Skopje, which was excluded from this simulation.

[16]The deteriorated quality of credit exposure with residual maturity which is due next year recorded a moderate worsening, while the total default on current non-performing exposure registered a minor improvement, thus their contribution in the decreased capital adequacy ratio, compared to the first quarter of 2023, increased by 1.7 percentage point, i.e. decreased by 0.1 percentage points, respectively

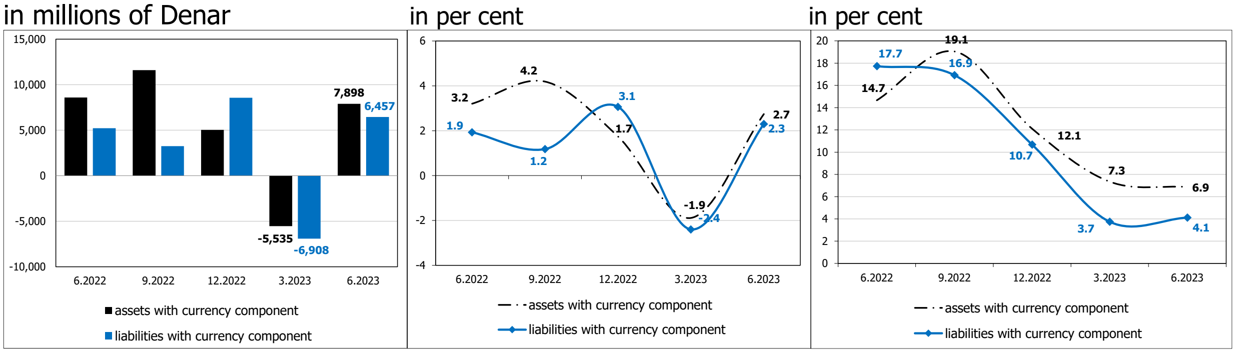
2. Currency risk

The direct currency risk exposure of the banking system in the second quarter of 2023 increased due to the expanded gap between assets and liabilities with currency component, yet the share relative to own funds still remains far below the regulatory limit of 30%. The gap expansion mainly results from the increased loans with euro component and assets in euros held at foreign banks. All banks have a long currency position.

The share of loans with currency component in total loans slightly increased compared to the first quarter of 2023 due to the increased share of household loans, while the share of corporate loans with currency component decreased. However, given that loans with euro component still prevail in total loans with currency component, the implementation of the currency peg policy is a key factor to mitigate the adverse effects of indirect currency risk materialization.

Chart 15 Quarterly (left and middle) and annual (right) growth of assets and liabilities with currency component*

in millions of Denar | in per cent | in per cent



Source: National Bank, i.e. the report on open currency position 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 "E", 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".

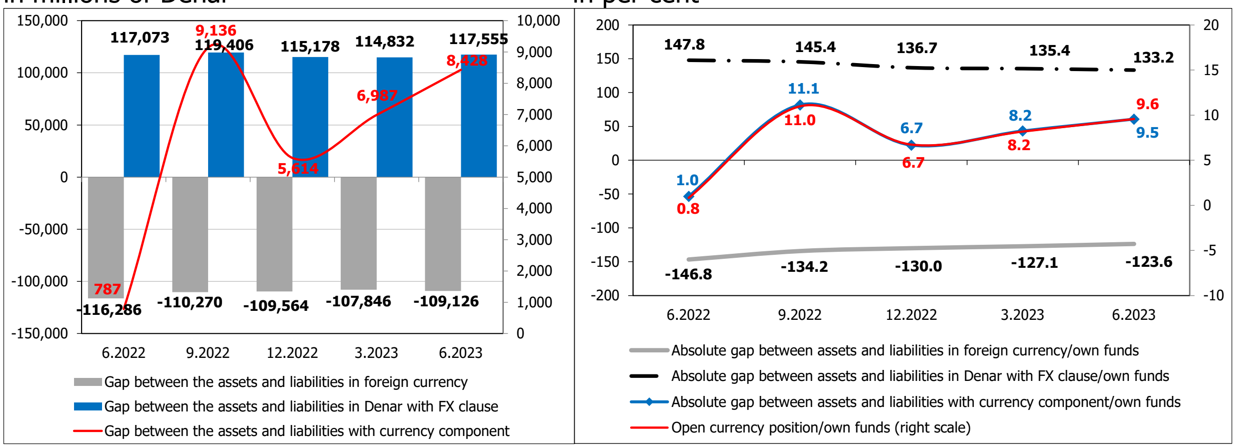
As of 30.6.2023, the gap between assets and liabilities with a currency component continued to expand and reached Denar 8,428 million. Compared to the previous quarter, the gap expanded by Denar 1,441 million or by 20.6%. This movement was due to the significant increase in assets (by Denar 7,898 million or 2.7%)[17] compared to the increased liabilities (by Denar 6,457 million or by 2.3%)[18]. The share of the positive gap in own funds increased by 1.3 percentage points compared to the previous quarter and reached 9.5%. The

[17] The quarterly increase in assets with currency component is mostly due to the increased lending by Denar 5,670 million (of which denar loans by Denar 2,916 million and foreign currency loans by Denar 2,745 million) and cash in foreign banks by Denar 2,464 million.
[18] The quarterly increase in liabilities with currency component mainly results from increased assets of current accounts and other short-term liabilities by Denar 2,568 million, deposits to non-financial sector by Denar 2,282 million (of which deposits of natural persons by Denar 1,267 million, deposits of non-residents by Denar 645 million and corporate deposits by Denar 370 million), as well as other balance sheet liabilities by Denar 2,138 million. On the other hand, the growth in liabilities was mitigated by the decreased deposits of the financial sector by Denar 600 million.

share of open currency position in own funds[19] is 9.6%, which is above the ten-year average of 7.8%, although still far below the regulatory limit of 30%.

Chart 16 Structure of gap between assets and liabilities with currency component (left) and share of assets and liabilities with currency component in own funds (right)

in millions of Denar in per cent

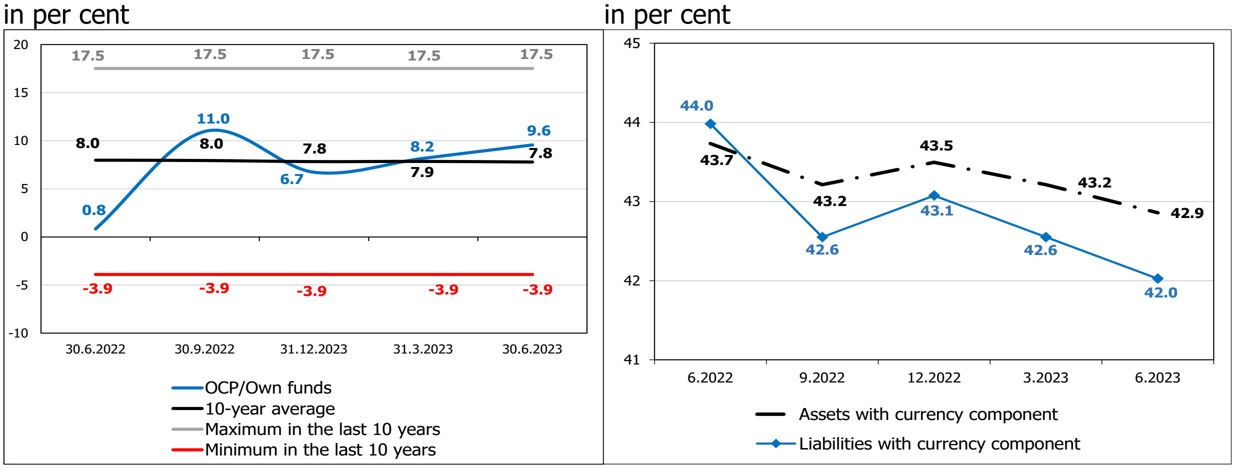


Source: National Bank based on data submitted by banks.

The growth rate of assets with currency component was lower than of total assets, thus its share in total assets reduced by 0.3 percentage points. Similarly, liabilities with currency component also grew at a lower quarterly rate compared to total assets, thus its share in total liabilities reduced by 0.6 percentage points.

Chart 17 Ten year average, minimum and maximum of the OCP/own funds ratio (left) and share of the assets and liabilities with currency component* in the total banks' assets (right)

in per cent in per cent



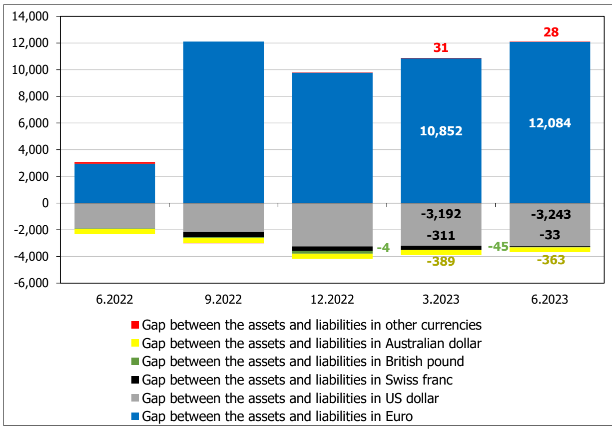
Source: National Bank based on data submitted by banks.

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

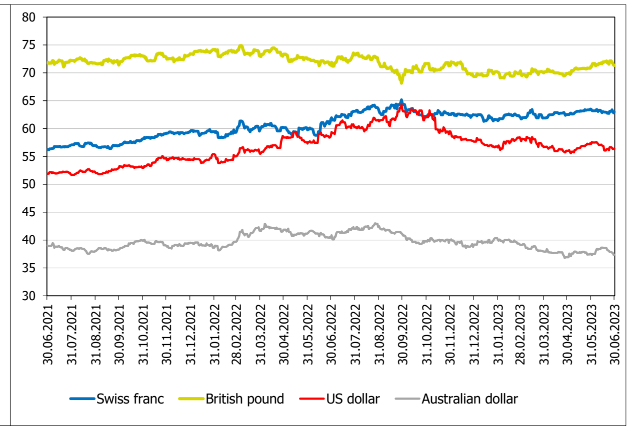
[19] The calculation of open currency position, besides the gap between the on-balance sheet assets and liabilities with currency component, also includes the gap between off-balance sheet assets and liabilities with currency component.

Chart 18 Structure of 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 Denar



in Denar



Source: National Bank based on data submitted by banks.

Analyzing by currency, the long currency position almost entirely reflects the positive gap in euros (including in denars with euro clause) which amounts to Denar 12,084 million and continues to increase. The gap between assets and liabilities with euro component compared to the previous quarter grew by Denar 1,232 million or by 11.4%, due to the faster growth in assets compared to liabilities in this currency[20]. A negative gap was registered between assets and liabilities with US dollar component amid increase in assets and liabilities[21], thus the negative gap compared to the previous quarter expanded slightly (by Denar 51 million or 1.6%). The exchange rate of the US dollar against the euro and consequently against denar during the second quarter of 2023 was stable with slight fluctuations, thus the possibility for materialization of the banking system exposure to currency risk was relatively low. The currency position with other currencies is short[22], yet their effect on the total gap is relatively low due to their low share in currency structure.

[20] Assets with euro component grew by Denar 6,837 million or by 2.6%, mainly due to increased lending by Denar 5,524 million (of which denar loans with euro clause by Denar 2,927 million and euro loans by Denar 2,597 million) and euro deposits by Denar 2,085 million, but it is mitigated by the decrease in financial assets held to maturity by Denar 1,304 million. Liabilities with euro component grew by Denar 5,605 million or by 2.2%, due to the increased other on-balance liabilities by Denar 2,170 million, euro deposits by Denar 1,992 million and assets on current accounts and other short-term liabilities by Euro 1,346 million.

[21] Assets with US dollar component grew by Denar 984 million or by 5.6%, mainly due to the increased investments in debt securities in US dollars held to maturity by Denar 1,106 million, and to a lesser extent to the increase in US dollar loans by Denar 157 million, while it is mitigated by the decreased assets, cash equivalents, gold and precious metals by Denar 388 million. Liabilities with US dollar component grew by Denar 1,035 million or by 5.0%, mainly due to the increased assets on current accounts and short-term liabilities by Denar 1,156 million and to a lesser extent to the US dollar deposits of non-resident by Denar 217 million, but it is mitigated by the decreased US dollar deposits of natural persons by Denar 139 million and US dollar deposits of financial institutions by Denar 120 million.

[22] The negative gap between assets and liabilities in British pounds and denars with this currency clause has spread and amounts to Denar 45 million, while it decreased in Australian dollar by Denar 363 million, and significantly narrowed in Swiss franc by Denar 33 million. The cumulative gap in other unspecified currencies is positive and amounts to Denar 28 million with a slight expansion.

Table 3 Currency structure of assets and liabilities with currency component
in per cent

Currency	31.3.2023		30.6.2023	
	Assets	Liabilities	Assets	Liabilities
Euro	90.8	89.2	90.7	89.2
US dollar	6.1	7.4	6.3	7.6
Swiss franc	1.3	1.4	1.3	1.4
Australian dollar	0.4	0.6	0.5	0.6
British pound	0.6	0.6	0.5	0.5
Other	0.8	0.8	0.8	0.8
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Bank based on data submitted by banks.

The banking system exposure to indirect currency risk in the second quarter of 2023 slightly increased and reflects the increased lending to households with currency component. As of 30.6.2023, the share of loans with currency component in total loans to non-financial sector slightly increased and reached 43.2% amid higher share of household loans and lower share of corporate loans. However, it should be borne in mind that almost all loans with currency component are in euros or in denars with euro clause (around 99.5%), which means that the effect of the indirect currency risk materialization was mitigated due to the euro peg policy.

Table 4 Distribution of banks by share of open currency position, by currency and the aggregate currency position in own funds

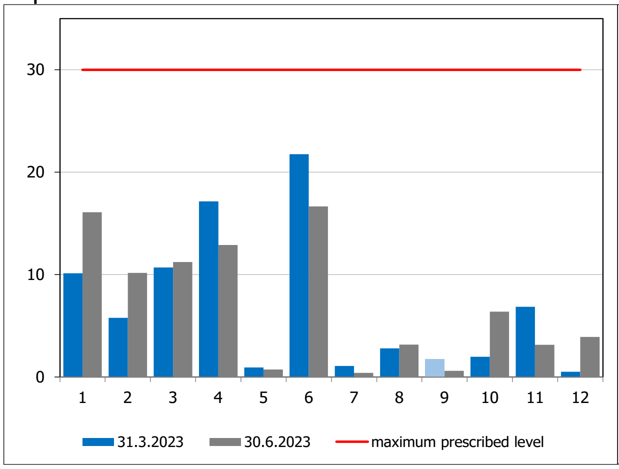
Items	Number of banks												
	Open currency position by currency/own funds												Aggregate currency position/own funds
	Euro		US dollar		Swiss franc		British pound		Australian dollar		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	
under 5%	4	3	10	2	8	3	9	2	5	3	12	0	6
from 5% to 10%	2												1
from 10% to 20%	3												5
from 20% to 30%													
over 30%													

Source: National Bank based on data submitted by banks.

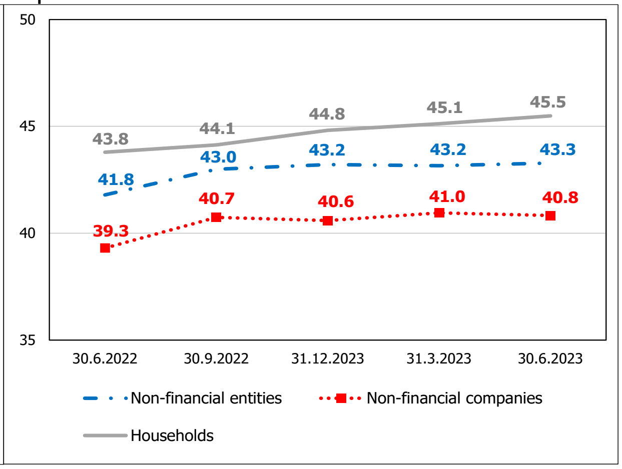
The aggregate currency position relative to own funds at the end of the second quarter of 2023 is long in all banks and is below the prescribed regulatory limit of 30%. The interval of the aggregate currency position in individual banks is narrowed and varies from 0.4% to 16.7%.

Chart 19 Aggregate currency position to own funds ratio, by bank* (left) and loans with FX component to total loans ratio (right)

in per cent



in per cent



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 are shown in absolute value. The analysis does not include DBNM, AD.

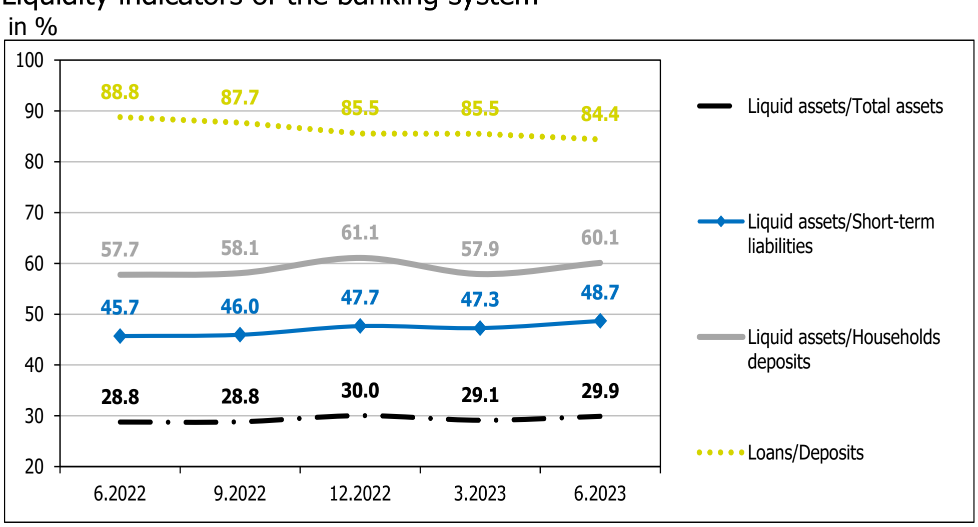
3. Liquidity risk

In the second quarter of 2023, the liquidity position of the banking system remained stable and additionally enhanced, providing satisfactory capacity of banks to timely and regularly service liabilities, and support lending activity with companies and households. Unlike in the previous quarter when liquid assets of the banking system decreased, in the second quarter of 2023, in conditions of quarterly growth of deposits, liquid assets grew again, with a quarterly growth of 6.4%, amid simultaneous intensification of the credit support to economy. Their growth was driven by increased investments of banks in deposit facilities with the National Bank (overnight and seven-day), as well as increased time deposits with foreign banks. Thus, the indicators for liquidity monitoring and assessment recorded slight upward shifts, which kept them within their stable, satisfactory levels. The liquidity coverage ratio of the banking system is almost three times higher compared to the regulatory minimum (100%), which confirms the solid volume of banks' liquid assets which keeps the liquidity risk within acceptable frames, without the occurrence of liquidity pressures. The cumulative gaps between the agreed cash inflows and outflows of up to 1 year are negative, but banks expect a relatively high deposit stability, as the main source of financing of their activities. The results of the stress tests indicate satisfactory resilience of the banking system to the assumed extreme, individual and combined liquidity outflows.

3.1. Liquidity indicators

In the second quarter of 2023, the increase in liquid assets of the banking system improved the liquidity indicators.

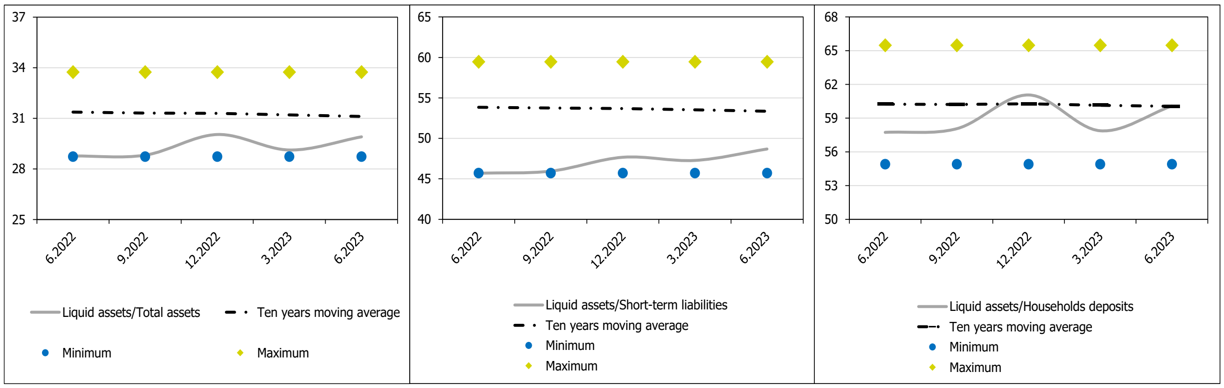
Chart 20 Liquidity indicators of the banking system



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

Note: The calculation of liquidity ratios of the banking system does not include resident interbank assets and liabilities.

Chart 21 Liquid assets/total assets (left), liquid assets/short-term liabilities (middle) and liquid assets/household deposits (right)



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

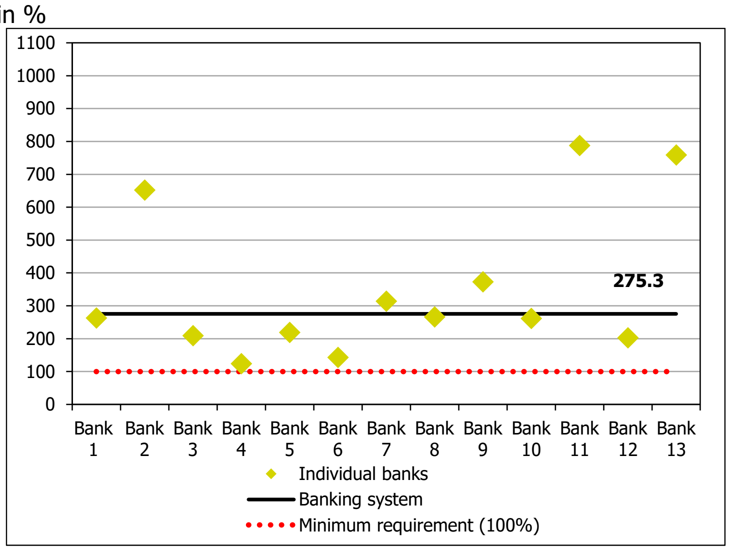
The indicators are moderately below their ten-year average, but point to adequate liquidity management by banks, without liquidity pressures, which is confirmed by the solid share of liquid assets in total bank assets (29.9%), as well as the coverage of short term liabilities and household deposits with liquid assets (of 48.7% и 60.1%, respectively[23]).

The liquidity coverage ratio of the banking system equals 275.3%, which is by 2.7 times higher than the regulatory minimum (100%[24]) and confirms the satisfactory volume of liquidity available to the Macedonian banking system. Bank-by-bank analysis shows that liquidity coverage ratios range from 123.6% to 787.6% (with a median of 262.7%), which points to acceptable frames of liquidity risk the banks are exposed to and their stable liquidity management.

According to the currency features of liquid assets and liabilities, in the second quarter of 2023, both denar[25] and foreign currency liquidity indicators improved. 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. The lower foreign currency liquidity indicator, compared to denar liquidity, emphasizes the adequate volume of the foreign reserves and the presence of the National Bank in the foreign exchange market (in order to maintain a stable exchange rate) for covering the possible increase in demand for foreign currency cash[26].

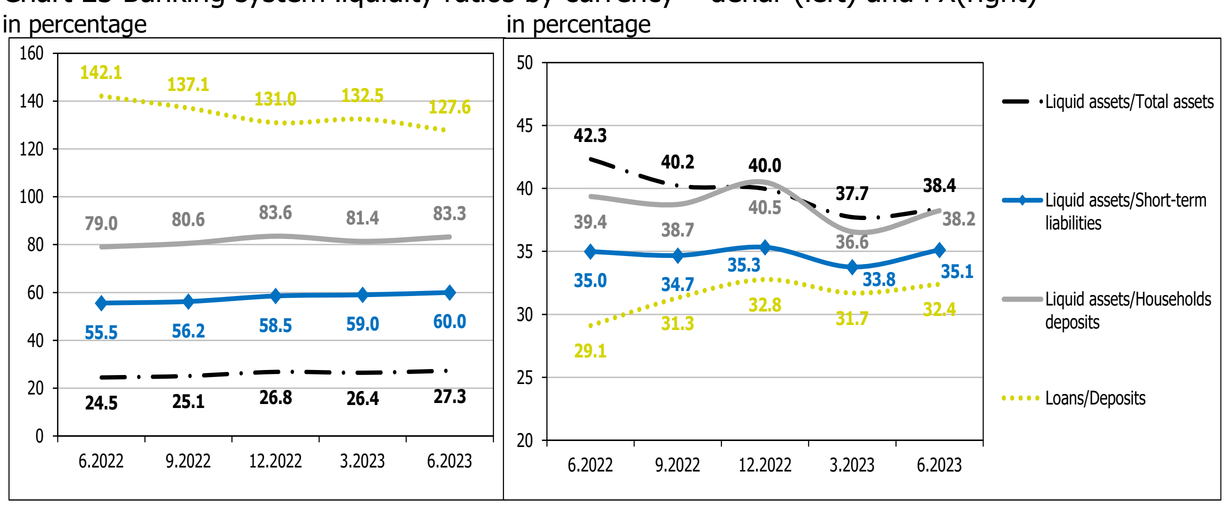
[23] Analyzed by bank, as of 30.6.2023, the share of liquid in total assets ranges between 20.5% and 49.1%, with a median of 27.7% (June 2022: between 17.6% and 49.5%). The coverage of short-term liabilities with liquid assets ranges between 34.5% and 79.9%, with a median of 50.3% (June 2022: between 31%% и 66, 3%), while the coverage of household deposits with liquid assets between 30.5% and 112.5%, with a median of 65.5% (June 2022: between 36.7% and 80.1%). The Development Bank of North Macedonia AD Skopje is excluded from this analysis.
[24] In addition to a cumulative basis, banks are required to determine and monitor a liquidity coverage ratio for each currency that is significant to the bank (each currency whose share of the bank's total balance sheet liabilities is at least 5%). Thus, a minimum level of liquidity coverage ratio by currency has not been prescribed. As of 30 June 2023, the liquidity coverage ratios for the two significant currencies, euros and denars, were 95.9% and 322%, respectively.
[25] Claims and liabilities with FX clause are considered denar claims and liabilities, since their cash flow is in denars.
[26] In this context it should be borne in mind that the European Central Bank (ECB) granted the National Bank access to euro liquidity in exchange for adequate collateral, in the form of repo line accessible since August 2020, worth Denar 400 million. The repo line access was extended multiple times and the current deadline is January 2024. The National Bank has so far no need of the funds from this repo line. For more details visit

Chart 22 Liquidity coverage ratio, as of 30.6.2023



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

Chart 23 Banking system liquidity ratios by currency – denar (left) and FX(right)



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

3.2. Dynamics and composition of liquid assets

At the end of the second quarter of 2023, the liquid assets[27] of the banking system amounted to Denar 204,462 million. Amid quarterly growth of deposit base (by 4.0%,

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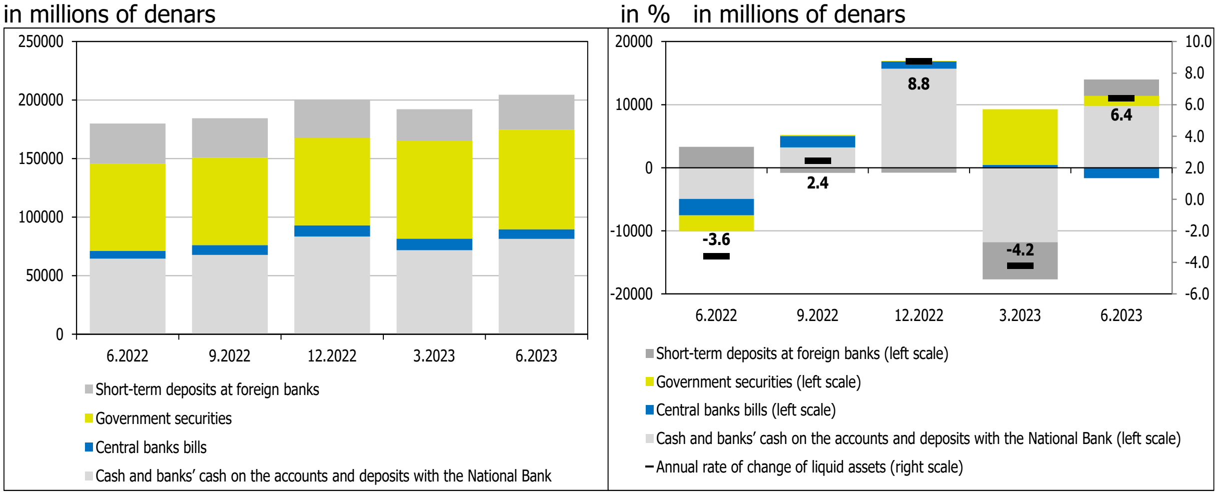
https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr221215~6bc5ecf0ff.en.html.

[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.

after the seasonal decrease in the first quarter), **the liquid assets of the banking system increased by 6.4%, i.e. Denar 8,429 million.** Analyzed by financial instruments that make up liquid assets, the increase was mostly pronounced in banks' placements in deposit facilities up to seven days with the National Bank (increase of Denar 7,920 million, or 28.4%) and overnight deposit facilities with the National Bank (increase of Denar 6,800 million, or 78.6%)[28].

More significant increase was recorded in banks' assets in corresponding accounts and short-term deposits placed in foreign banks (increase of Denar 2,588, or 9.6%). The instrument for placing banks' foreign currency deposits with the National Bank, which was reactivated in the second half of 2020, during Covid-19 pandemics, was suspended in May 2023, in line with the changed circumstances and reduced interest by banks, thus in the second quarter of 2023 these deposits reduced by Denar 586 million to zero. On the other hand, assets on denar account with the National Bank moved downwards (decrease of Denar 4,949 million, or 25.8%), while banks' investments in government securities slightly increased (placements in government bonds by Denar 698 million,

Chart 24 Liquid assets, structure (left) and growth (right)



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

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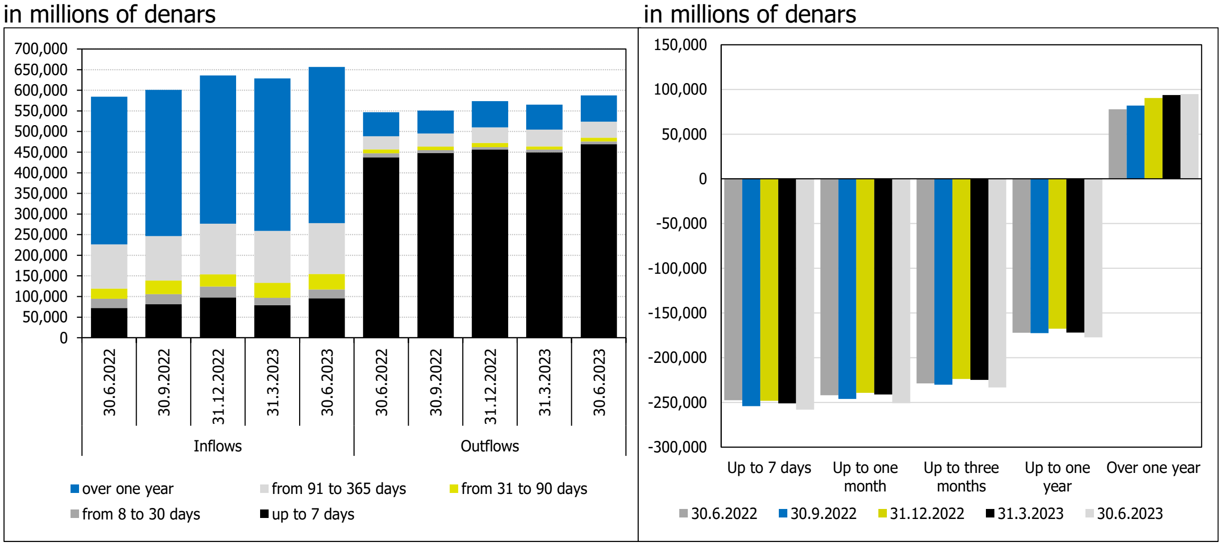
[28]In the second quarter of 2023, the National Bank continued to tighten monetary policy, which started since the end of 2021, by actively managing liquidity through the interventions on the foreign exchange market, and as of April last year by increasing interest rates. Coupled with the interest rates of the basic monetary policy instrument, the interest rates of the available overnight and seven days deposits increased on two occasions, cumulatively by 0.50 percentage points, to a level of 3.90% and 3.95%, respectively. In August 2023, interest rates on deposit facilities were additionally increased by 0.15 percentage points.

or by 1.1%, while placement in treasury bills by Denar 734 million, or by 4.2%). Banks' placements in CB bills fell by Denar 1,646 million, or by 16.6%[29].

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

As of 30.06.2023, the agreed inflows of banks distributed in the period over one year and the agreed outflows of banks distributed in the period up to seven days prevail in the maturity structure of banks' inflows and outflows. The largest difference (gap) between the banks' inflows and outflows is registered in the time periods up to seven days (negative gap) and over one year (positive gap), which results from the inclusion of the liabilities on demand and without a maturity in the maturity segment up to seven days, i.e. due to claims based on loans included in maturity segments over one year (long-term loans at the level of the banking system cover around 80% of total loans to non-financial entities). These cumulative gaps in relation to the assets of the banking system are 36.9% (the cumulative gap up to seven days) and 25.4% (the cumulative gap up to one year).

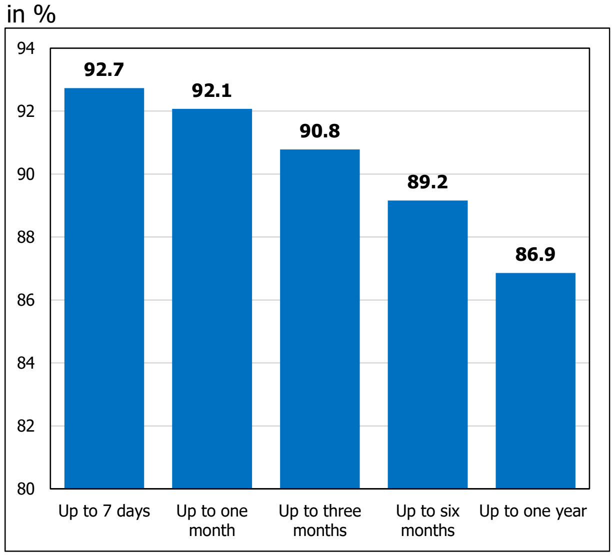
Chart 25 Maturity structure of inflows and outflows based on balance sheet assets and liabilities (left) and cumulative gap between agreed inflows and outflows, including cumulative amount of non-weighted assets (right)



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

[29] In the second quarter of 2023, as well as in August 2023, interest rate on CB bills increased cumulatively by 0.65 percentage points, to 6.15% (As of August 2023). The offered amount of CB bills remained unchanged at Denar 10,000 million.

Chart 26 Expected deposit stability, by residual period to maturity as of 30.6.2023



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

The banks expect maintenance of the deposit stability as the main source of funding for their activities. In accordance with the depositors' behavior, banks' assessments show that the largest part of the agreed cash outflows (or 86.9%) based on deposits will not happen in the following 12 months.

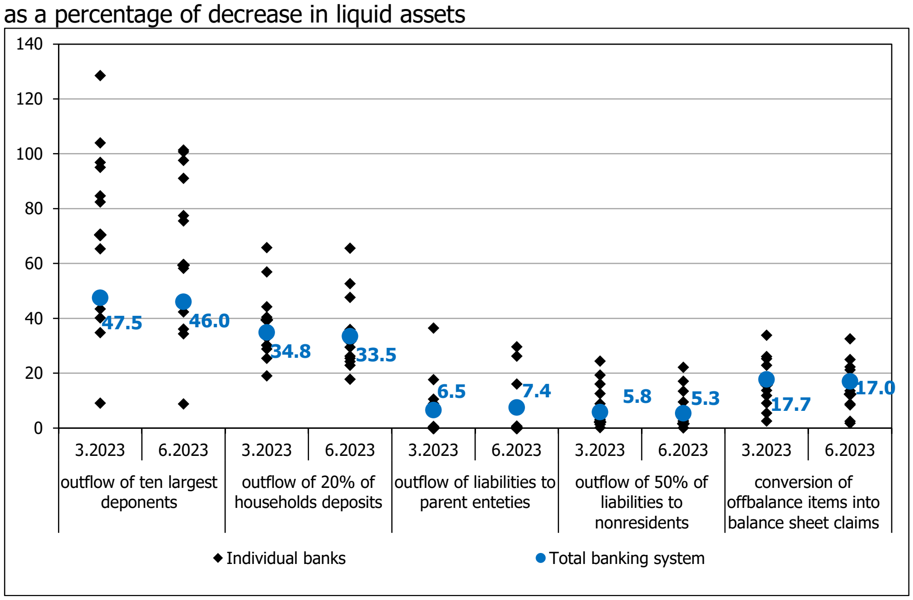
3.4. Stress-simulations for liquidity shocks

On 30.6.2023, the results of the conducted stress simulations for liquidity shocks show solid capacity of the banking system, which has sufficient liquid assets to respond appropriately to the simulated cash outflows. The resilience of the Macedonian banking system to liquidity shocks is confirmed by the results of all individual simulations of liquidity shocks, with the liquid assets being fully used (or 109.3% on 30.06.2023) only in case of significantly extreme simulation of liquidity shock, which covers combined outflows[30] of funds from banks on 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 case, the simulation of combined assumed shocks shows that the liquid assets of the banking system have the capacity to cover all assumed outflows.

[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 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] Financial instruments that comprise liquid assets, also include the following financial instruments: assets in the guarantee fund in KIBS, long-term deposits in foreign banks, money market instruments issued by foreign non-government issuers, loans with contractual residual maturity of up to 30 days and the effect of reducing the reserve requirement for foreign currency liabilities of banks, which is allocated in foreign currency due to the simulated outflow of households' foreign currency deposits.

Chart 27 Contribution of shocks to the decline in liquid assets in the simulation of a combined liquidity shock

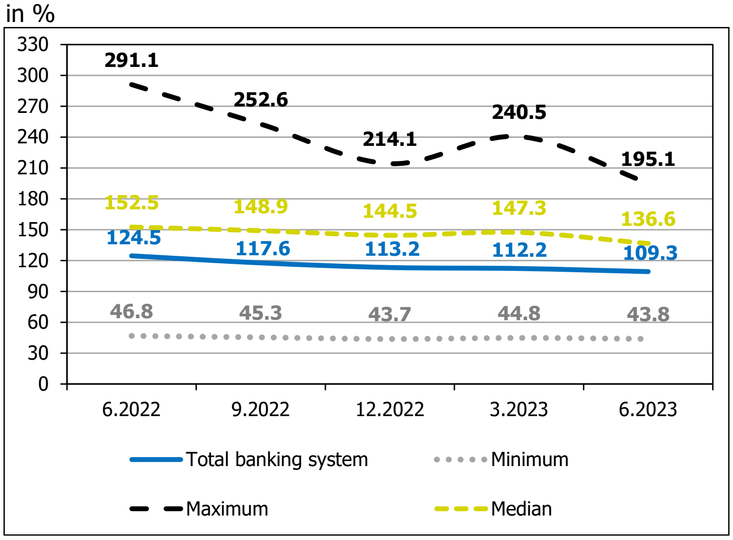


Source: National Bank, based on the data submitted by banks.

At individual simulations of liquidity shocks, the high level of liquidity which Macedonian banks have at their disposal provides settlement also of all assumed, individual, extreme liquidity outflows. The sharpest decline in liquid assets occurs amid simulation of outflow of the deposits of the ten largest depositors, and the importance of this simulation to individual banks is different, given the differences in the degree of concentration of deposits. On the contrary, simulated materialization of reputation risk and loss of confidence of the population in the banks represented by an outflow of 20% of household deposits shows a greater similarity in the results for individual banks, thus confirming the importance of the public confidence in the banking system. In the assumed conversion of certain off-balance sheet liabilities, banks would spend slightly less than 20% of their liquid assets[32]. The small share of liabilities to non-residents and to parent entities, in the structure of total banks' sources of funding has a moderate impact on the shocks associated with them on the overall result of this simulation.

[32] Outflow is assumed as a result of the migration of some off-balance sheet liabilities of the banks (uncovered letters of credit, irrevocable credit lines and unused limits based on credit cards and approved overdrafts on transaction accounts) into on-balance sheet claims.

Chart 28 Reduction in liquid assets after the simulation for combined liquidity shocks (after all shocks)



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

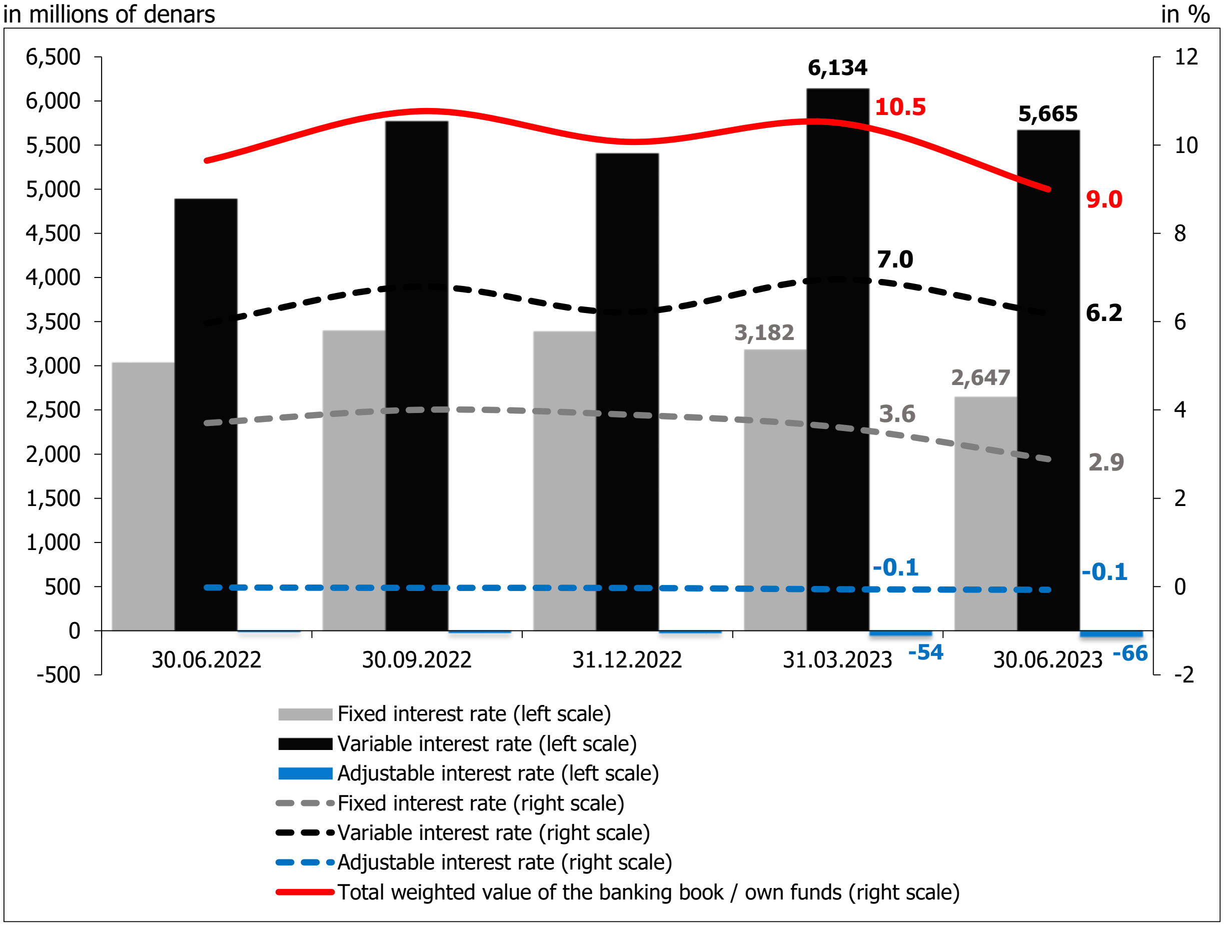
4. Interest rate risk

In the second quarter of 2023, banking system's exposure to interest rate risk from performing main banking activities reduced and remained within the prescribed limit. This decrease is mostly due to the increase (in the weighted amount) in time deposit liabilities (with fixed interest rate) and demand deposits (with variable interest rate), amid simultaneous redistributions of placements in loans from buckets with longer to buckets with shorter residual period until the next interest rate reassessment[33]. The total gap between interest sensitive assets and liabilities, without the standard interest rate shock, is positive, so the banking system is exposed to interest rate risk, on an aggregated basis. However, risks of its materialization are minimal, at least in the shorter term, amid tightening of financial conditions, both globally and locally. The rising trend of interest rates, which started last year and continued in 2023, coupled with the fact that the share of loans with variable and adjustable[34] interest rate is significant in the banking book, increases the importance of banks' exposure to indirect interest rate risk through borrowers, due to their possible reduced creditworthiness amid growth in interest-bearing debt.

[33] In accordance with the regulation, banks' exposure to interest rate risks which arises from banking activities, is monitored through the amount of the interest sensitive assets and liabilities (mainly loans and deposits), which are subject to interest rate shock for parallel, positive or negative interest rate change by 2 percentage points. At the same time, the interest sensitive assets and liabilities are distributed in time zones according to the maturity period, with variable interest rates according to the interest rate reassessment period and with adjustable interest rates according to the probability and frequency of the interest rate change. The further the time zone is, the stronger is the effect of the simulated interest rate shock of 2 percentage points, i.e. the higher the percentage that weights the amount of interest sensitive assets and liabilities. The specific nature of loans with combined interest rate is noted (fixed interest rate for a certain period, followed by a variable interest rate), which are distributed in time zones according to the actual maturity of annuities in the period of fixed interest rate (for the amount which is due in that period), and the rest of the amount subject to a future variable interest rate, is represented in adequate time zones according to the period of the variable interest rate reassessment period. At the end, net amount of the weighted interest sensitive assets and liabilities is determined, which within the regulations is known as weighted value of the banking book and represents the change of the economic value of this portfolio amid assumed interest rate shock of ±2 percentage points.

[34] Adjustable interest rate is interest rate which is unilaterally changed, upon banks' decision.

Chart 29 Total weighted assets of the banking book*, by interest rate type, in absolute amount (left scale) and relative to own funds (right scale)

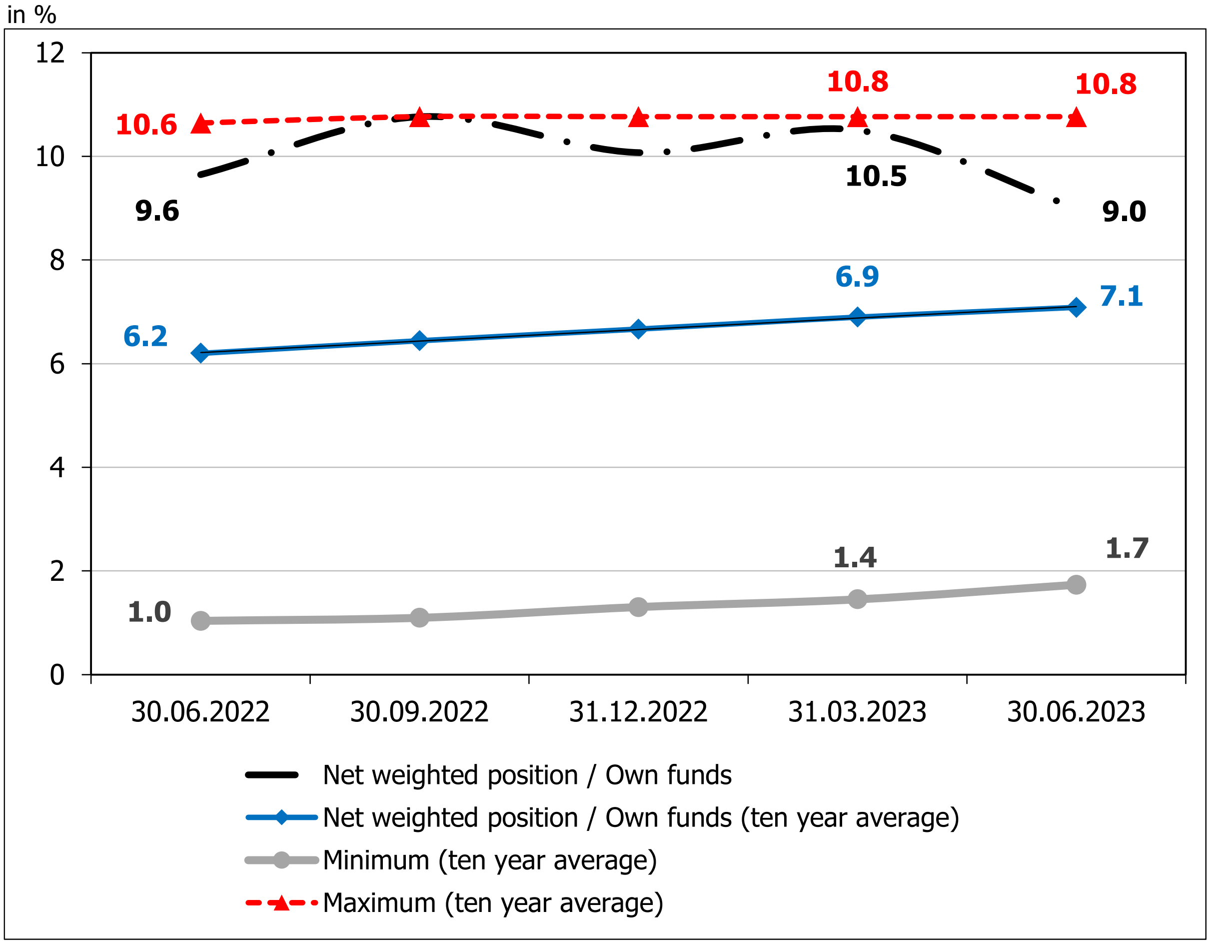


Source: National Bank, based on the data submitted by banks.
*The total weighted value of the banking book denotes the potential loss of the economic value of this portfolio, amid assumed interest shock of ±2 percentage points.

The total weighted value of the banking book[35] registered a quarterly decrease of Denar 1,016 million, or 11%, which amid increase of own funds (by 3.9%) decreased the regulatory measure for direct interest rate risk exposure of the basic banking activities (net weighted value of the banking book to own funds ratio) by 1.5 percentage points, to 9%. This ratio is below the maximum for the last 10 years (10.8%), but exceeds the ten-year average of 7.1%. Analyzing by bank, this ratio ranges from 1.7% to 14.4%, and is below the prescribed threshold of 20%[36].

[35] For the explanation of the term weighted value of banking book, see the firs footnote in this part of the Report.
[36] According to the regulation, when total weighted value of the banking book to own funds ratio exceeds 20%, the bank is required to propose measures to reduce this ratio, and the National Bank may also require allocation of appropriate amount of capital for covering the interest rate risk in the banking book.

Chart 30 Exposure of banking activities to interest rate risk ratio (net weighted position/ own funds)



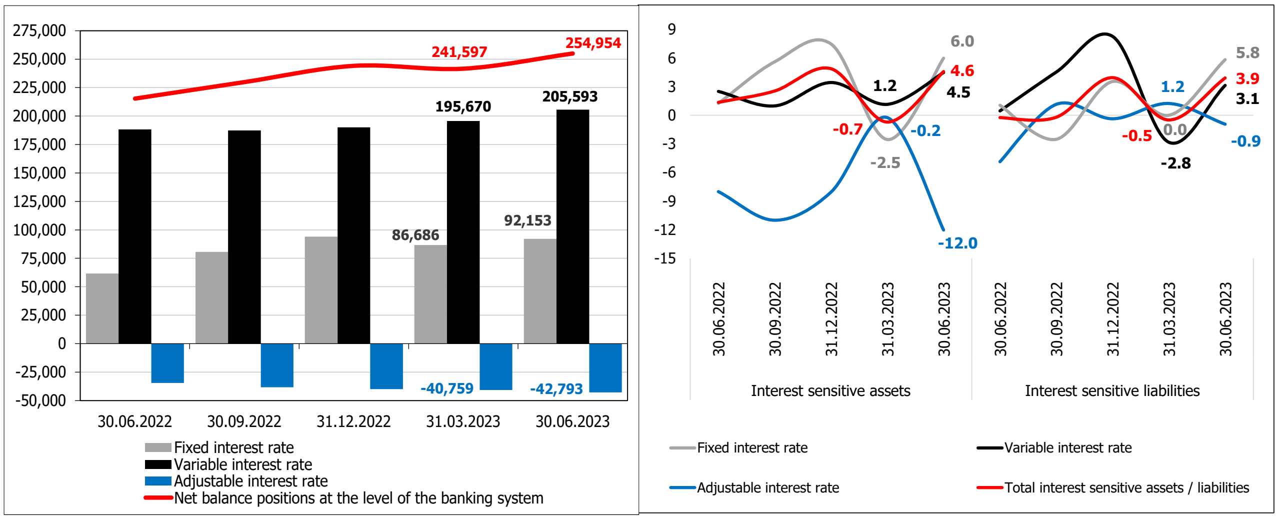
Source: National Bank, based on the data submitted by banks.

Analyzing the type of interest rate, the quarterly decline of the weighted value (net) of the banking book mostly results from the decrease in the weighted value of the portfolio with fixed interest rate[37] (by Denar 535 million, or 16.8%) and from the decrease in the weighted value of the banking book with variable interest rate[38] (by Denar For 469 million, or by 7.6%).

[37] This decline is primarily due to the increase in the amount of liabilities based on time deposits with this type of interest rate.
[38] This decline is due to the increase in demand liabilities with this type of interest rate, amid simultaneous redistribution of part of the placement in loans with this type of interest rate, from buckets with longer (from three to six months) to buckets with shorter residual maturity (up to one month).

Chart 31 Interest sensitive assets and liabilities by type of interest rate, gap (left) and quarterly growth (right)

in millions of denars | in %

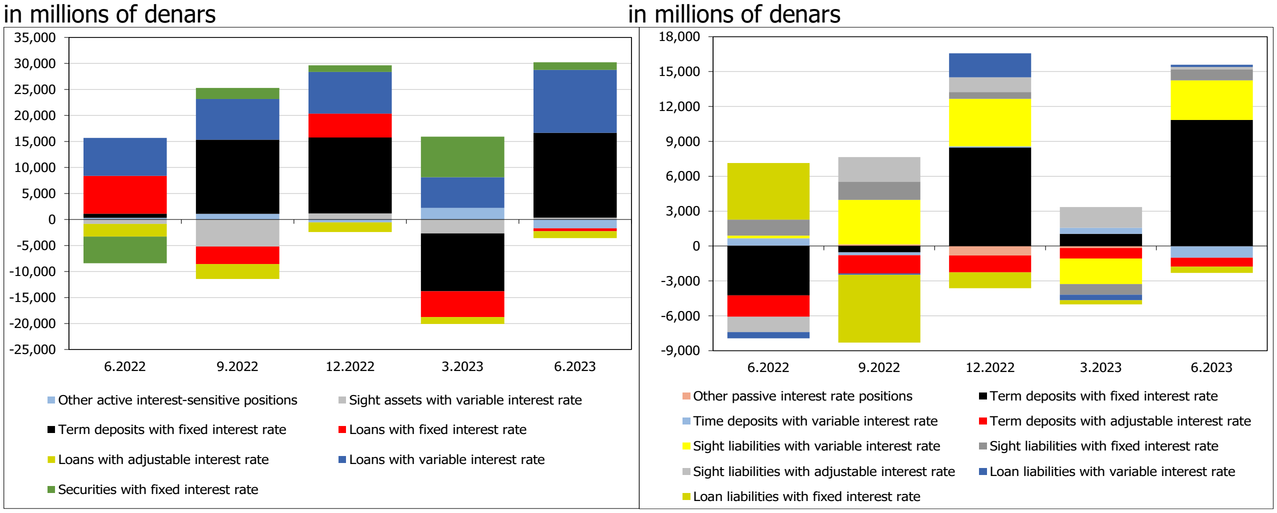


Source: National Bank, based on the data submitted by banks.

The total, non-weighted gap between interest sensitive assets and liabilities (i.e. net amount of interest sensitive assets and liabilities not using the prescribed interest shock of 2 percentage points) grew quarterly by 5.5% or Denar 13,356 million. This is mostly due to the widening of the positive gap between the positions with fixed interest rate (by 6.3% or by Denar 5,467 million) mostly due to the increase in the placements in term deposits with this type of interest rate (with the National Bank in foreign banks). The positive (non-weighted) gap between assets and liabilities with variable interest rate widened as well (by Denar 9,923 million or by 5.1%), mostly due to the increase in the placements in loans with this type of interest rates. The negative gap between assets and liabilities with adjustable interest rate widened by Denar 2,034 million, or by 5%, due to the reduction of the placements in loans with this type of interest rates.

Chart 32 Quarterly growth of interest sensitive assets (left) and liabilities (right), by type of instrument and type of interest rate.

in millions of denars | in millions of denars

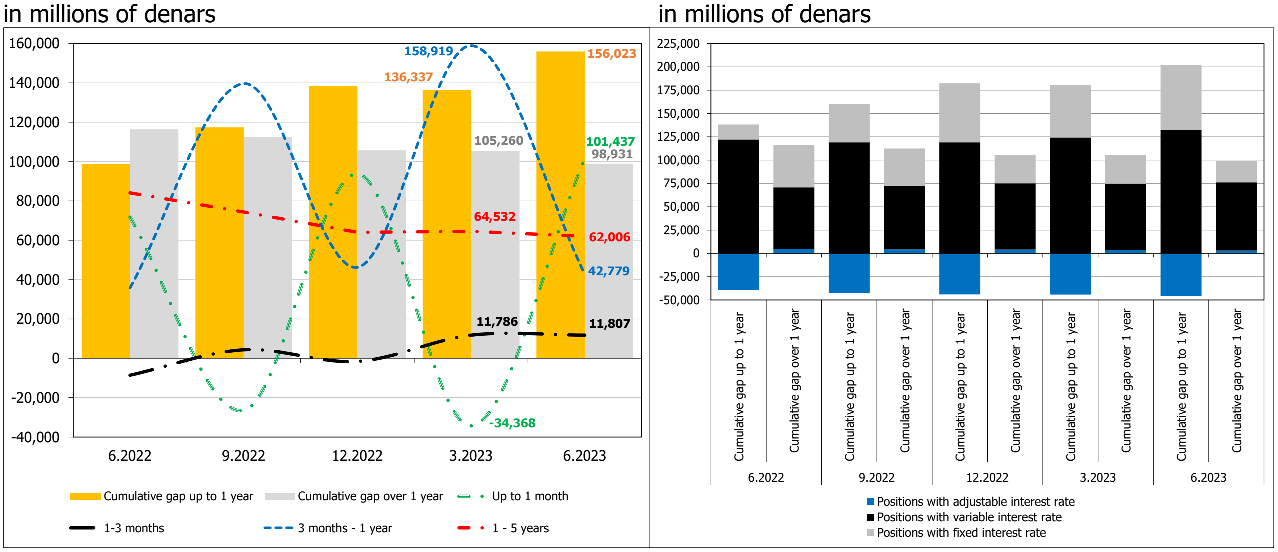


Source: National Bank, based on the data submitted by banks.

Analyzing the time period until the next reassessment of interest rates, the expansion of the total gap between the interest-sensitive assets and liabilities is entirely due to the expansion of the gap over to, by Denar 15,604 million, while the gap up to 1 year registered an insignificant expansion of Denar 207 million. Such widening is mostly due to redistribution of part of the placements in loans with variable interest rate, from the time bucket from three to six months to the time bucket up to one month, as well as due to increased placements in time deposits with fixed interest rate (with the National Bank and foreign banks).

Chart 33 Asset-liability gap, by period until next interest rate revaluation (left) and by gap structure by interest rate type (right)

in millions of denars

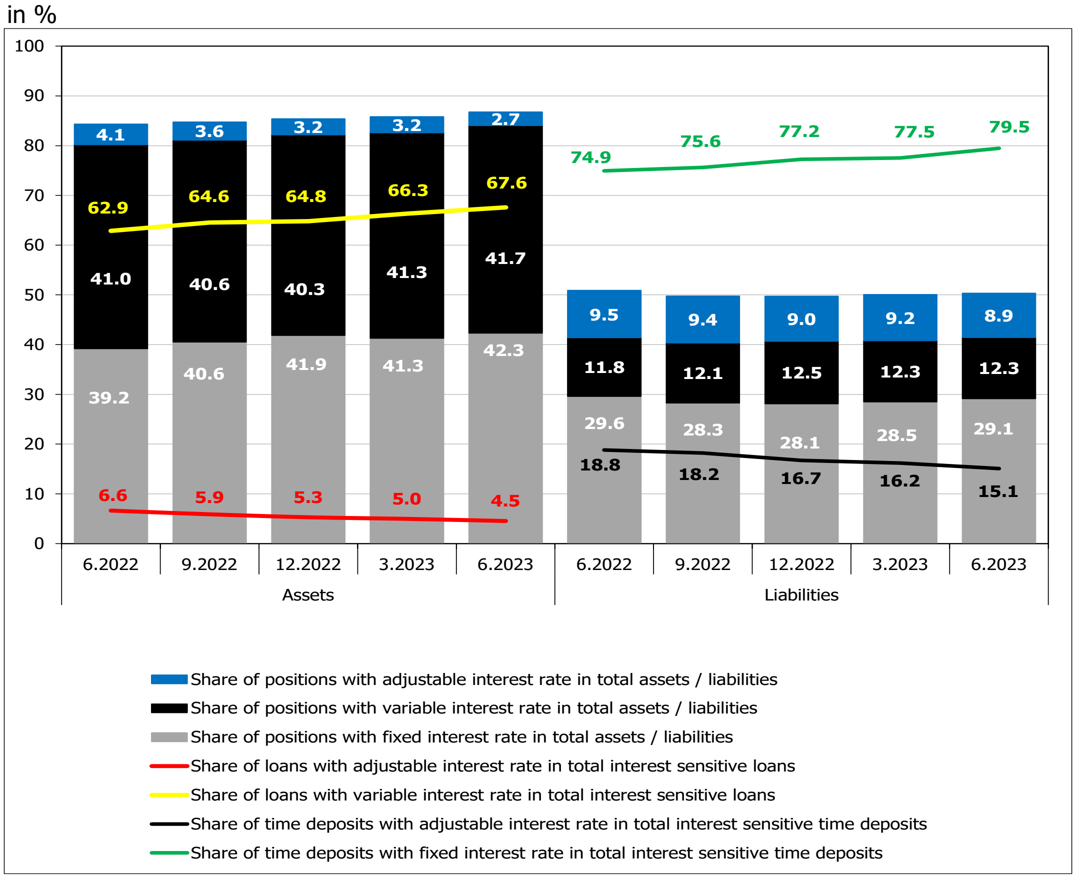


Source: National Bank, based on the data submitted by banks.

The indirect exposure to interest rate risk arising from loans with adjustable and variable interest rates, remains significant. As of 30.6.2023, the cumulative share of these loans in the total loans is 72.1% (increase of 0.8% percentage points compared to 31.3.2023), whereby 67.6% of the total loans have variable interest rate, while 4.5% are with adjustable interest rate. It should be borne in mind that in accordance with regulations, in the interest rate risk reports, the amount of all positions (including loans) that are envisaged to be regulated by a different type of interest rate in different time periods to maturity, is distributed depending on the type of interest rate that will apply in the corresponding time period. Thus, as of 30.6.2023, 15.6% of total loans for the purposes of these reports, are shown as loans with variable interest rate, in the respective future time bucket which is envisaged to be regulated by variable interest rate, although they are currently regulated by fixed interest rate[39].

[39] Or in other words, as of 30.6.2023, a variable interest rate is applied on about 52% of the amount of loans, and on the remaining about 16% (up to the presented 67.6% as of 30.6.2023), a fixed interest rate is currently applied, which during the life of the loans (usually after several years) will be replaced by a variable interest rate.

Chart 34 Assets and liabilities structure, by type of interest rate



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

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

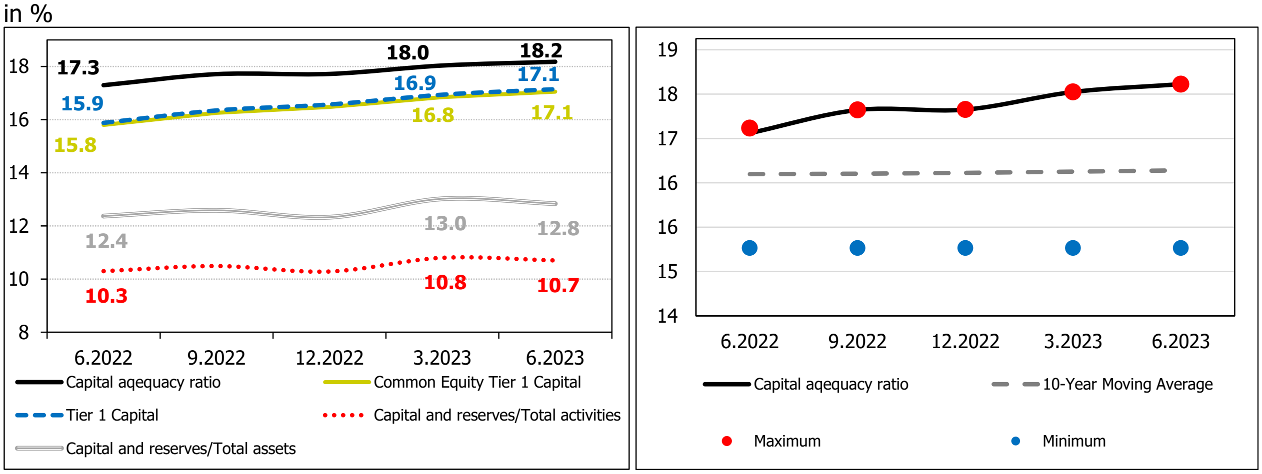
5. Insolvency risk

The solvency and capitalization ratios of the banking system continued to move upward in the second quarter of 2023. The capital adequacy ratio increased by 0.2 percentage points, to a level of 18.2%, which is the maximum value registered from 2007 up to date. This growth reflects the higher quarterly growth of own funds compared to the growth of assets weighted by risks. The growth of own funds in the second quarter is mostly due to banks' reinvested profits from the last year, while the growth of assets weighted by risks mostly stems from the banks' increased credit activity with non-financial companies. About 70% of the growth of own funds was used to meet the regulatory and supervisory requirements in relation to the banks' capital levels. The remaining around 30% of the quarterly increase in the own funds increased the "free" capital above the minimum regulatory (including the capital buffers) and supervisory requirements, increasing its share in own funds to 12.5%. This surplus, together with the capital buffers, accounts for around 35% of total own funds of the banking system, which are especially important in conditions of crisis episodes, when they can be used to deal with challenges of different nature and intensity. The conducted stress testing of the banking system resilience to the simulated shocks with extremely conservative assumptions shows increased resilience of the banking system compared with the previous quarter. This is especially important given the still uncertain environment followed by tightening of financial conditions. In such circumstances, the solvency of the banking system, which is at a satisfactory level, significantly mitigates the negative effects of potential significant materialization of any risks.

5.1. Solvency and capitalization of the banking system

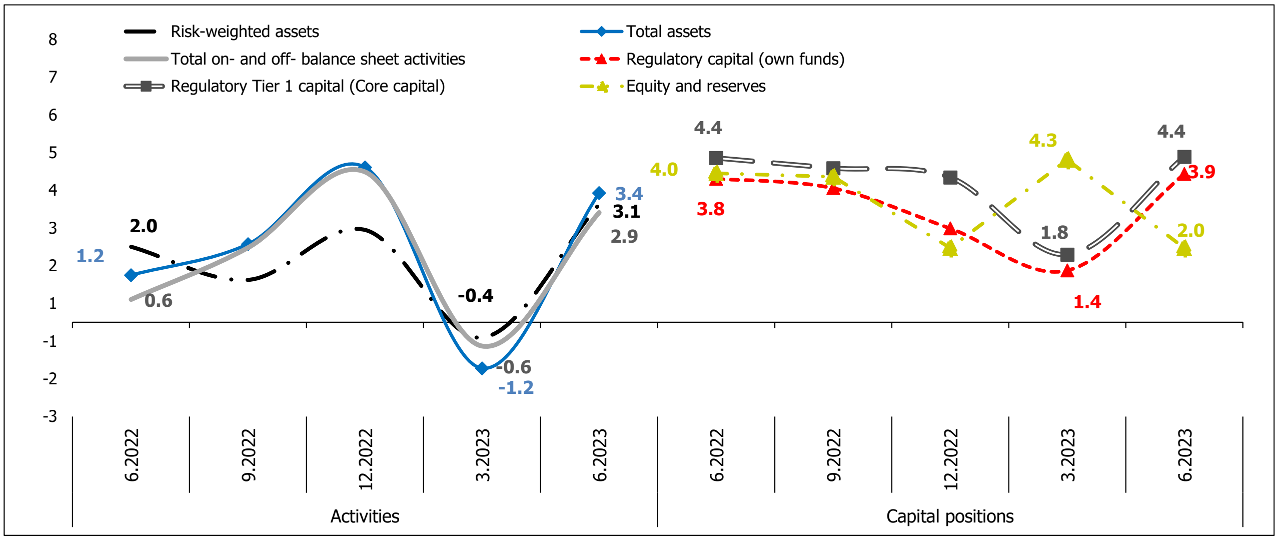
The solvency and capitalization ratios of the banking system continued to move upward in the second quarter of 2023. Quarterly, the capital adequacy ratio increased by 0.2 percentage points, to 18.2%, which is the maximum value registered in the past sixteen years.

Chart 35 Solvency and capitalization ratios of the Macedonian banking system (left) and capital adequacy ratio (right)
in %



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

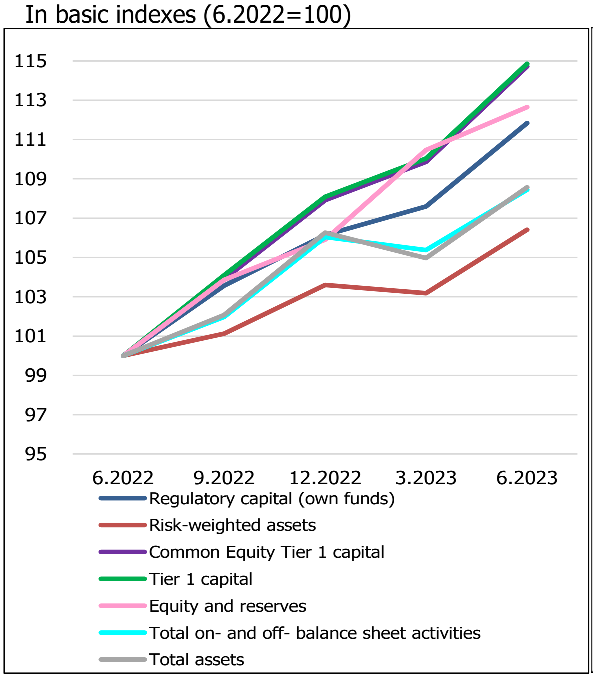
Chart 36 Quarterly growth of solvency ratio components
in %

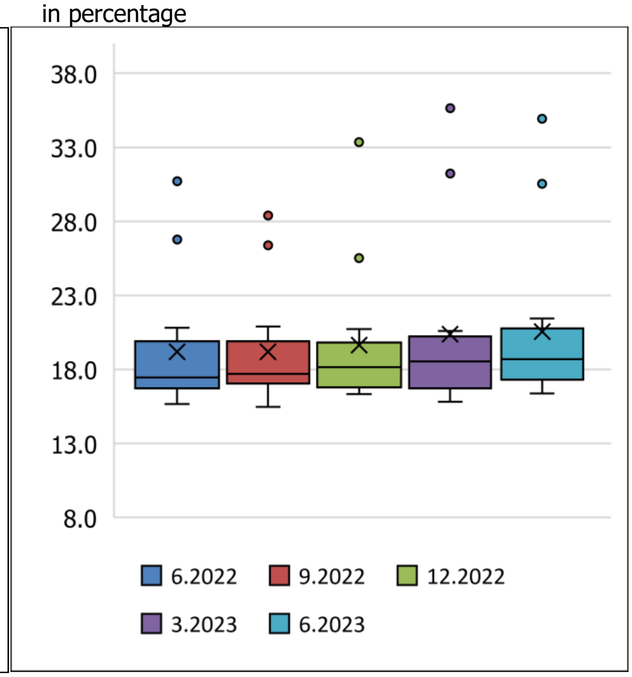


Source: National Bank, based on the data submitted by banks.

The interest rates of the Common Equity Tier 1 capital and Tier 1 capital grew by 0.3 and 0.2 percentage points and equaled to the level of 17.1%. The capital and reserves registered a quarterly growth of 2%, while own funds grew by 3.9%, mostly due to banks' decisions to reinvest the last year' profit (which is common for the first half of the year after the banks' annual shareholders' assemblies), allocation of profits to increase the general reserve fund, as well as dividend payment in shares by one small bank. The shares of equity and reserves to total assets and total on-balance and off-balance sheet activities of banks minimally decreased from 0.2 and 0.1 percentage points, to 12.8% and 10.7%, respectively. Therefore, total assets, total on-balance and off-balance sheet activities and the risk weighted assets grew by 3.4%, 2.9% and 3.1%, respectively.

Chart 37 Trends in nominator and denominator of solvency ratios (left) and dispersion measures of the banking system adequacy ratio (right)





Source: National Bank, based on the data submitted by banks.
Note on the right chart: The average value is marked with X, while the median value is marked with the middle horizontal line within the column. The column explains the interquartile difference, i.e. indicates the capital adequacy ratios in half of the banks in the system. The remote dots show the extreme values, i.e. banks in the system with the highest capital adequacy ratio.

The breakdown of the banking system solvency ratios points to the conclusion that the upward movement of solvency indicators mainly stems from the pronounced growth of the best layer of own funds, the Common Equity Tier 1 capital. The past quarters registered more pronounced upward trend in capital positions especially in the Common Equity Tier 1 capital, the growth of which entirely levels up with the growth of the Tier 1 capital. On the other hand, the growth trend of assets, total balance and off-balance sheet activities as well as risk-weighted assets is milder, which contributes to strengthening of the banking system solvency.

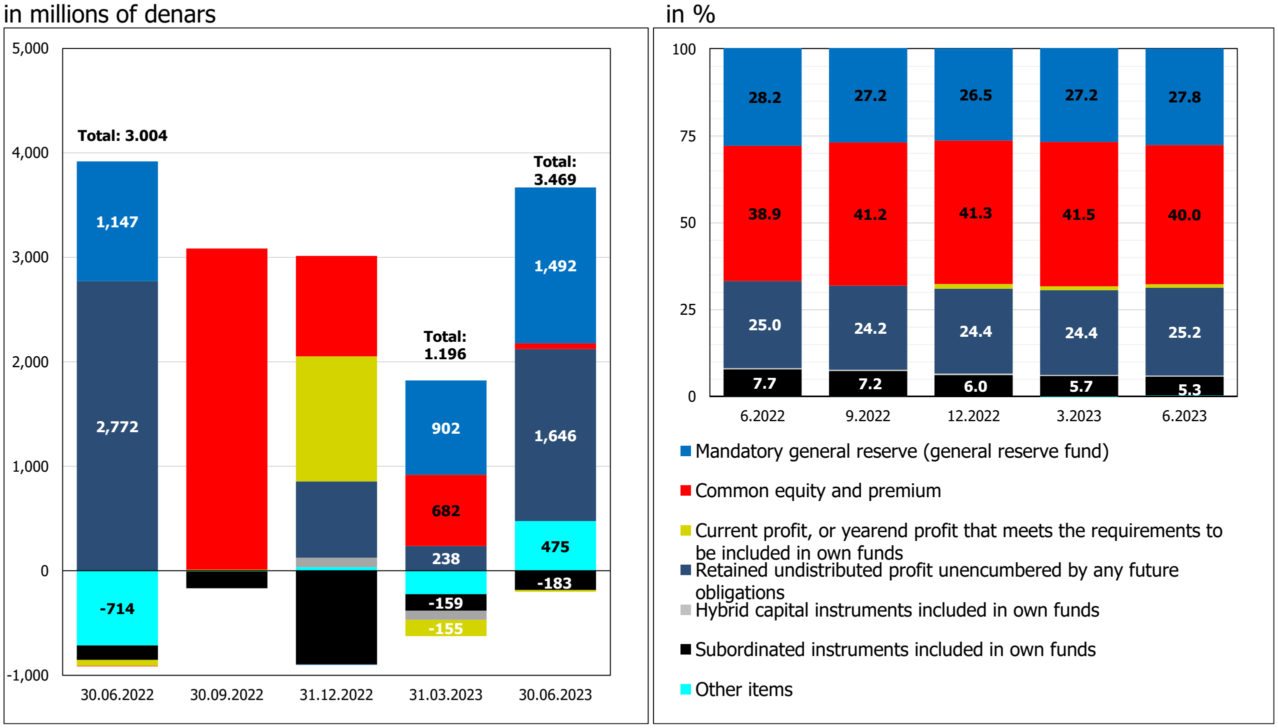
The dispersion of the adequacy ratio within the banking system also indicates improved image compared to the previous quarters. The minimum and maximum value of the adequacy ratios of all banks in the system are at a higher level compared to the same quarter last year, with a higher level of their median and average value as well. A slight increase is registered in the interquartile difference, which is at a higher level compared to the previous quarters indicating improved solvency by individual bank. The capital adequacy ratio as of 30.6.2023, is higher in all banks by 16.4%.

5.2. Quality of own funds of the banking system

The banking system has high-quality capital positions, which enable satisfactory resilience to possible stress situations. At the end of the second quarter of 2023, the growth of the highest quality layer of banking system's own funds (Common Equity Tier 1 capital) continued, dominating the total own funds with a share of 93.8% (93.4% as of 31.3.2023). The Additional Tier 1 capital and Tier 2 capital account for 0.5% and 5.7% of the banking system's own funds (0.5% and 6.1% as of 31.3.2023, respectively). Banks are required to calculate the leverage ratio semi-annually as well (as a ratio between the Tier 1 capital and total on-balance and off-balance sheet exposure), which in the first half of 2023 equaled 11.6% and shows an improvement trend compared to the second half of 2022 (11.3%), as well as compared to the first half of the previous year (10.7%).

In the second quarter of 2023, banking system's own funds, registered an increase of Denar 3,469 million, or 3.9%, which is almost three times the growth compared to the previous quarter (1.4). The largest contribution to own funds was made by retained and reinvested profits from the previous year. The growth of own funds was also supported by the dividend payment in shares through issue of common shares by one small bank[40]. The mandatory general reserves (general reserve fund) and the retained non-distributed profit registered a growth, preserving the dominant position in the structure of own funds with a share of 53%. A certain slight decrease was registered in subordinated instruments (due to reduction of the accounting value because of the entering in the last five years to maturity), and the other changes were also with a positive sign (as a result of the changes in the fair value of the instruments held for sale and are appropriately reflected in revaluation reserves). For more details about the level of own funds by group of banks see the Annexes to this report.

Chart 38 Structure of the quarterly growth of own funds (left) and structure of the own funds (right)

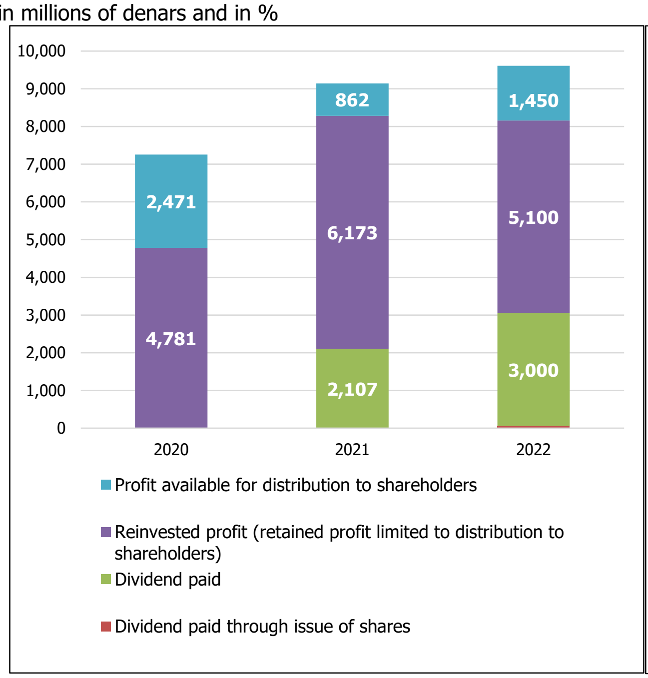


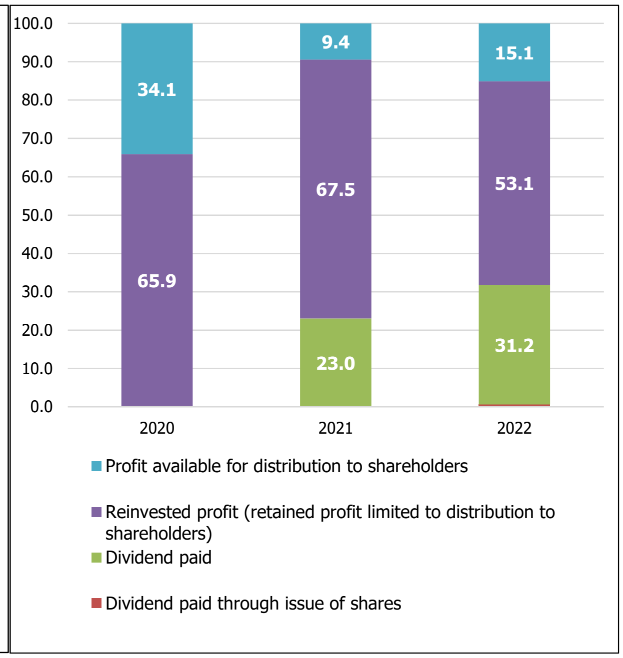
Source: National Bank, based on the data submitted by banks.

[40]For more details, please visit the following link.

Most of the banks' profit in 2022 was used to increase capital positions. Reinvested profits in banks' own funds (the distribution of which to shareholders is limited) account for 53.1% of the profit in 2022, and despite registering a decrease (by Denar 1,073 million compared to the last year), it remained dominant. All of the thirteen banks in the system ended the year with profit, whereby only four banks paid dividend (two large, one medium-sized and one small bank[41]). Around 31% of the profit in 2022 was intended for dividend payment in 2023 (an amount higher by 30% compared to the last year or an increase of Denar 893 million). Also, one large bank used part of the profit to increase the undistributed profits available for future dividend payment to shareholders. Hence, the part of profit retained by banks in capital positions for distribution to shareholders is higher (by Denar 587 million compared to the last year).

Chart 39 Amount of profit distributed by banks for the current year (left) and in percentage shares (right)
in millions of denars and in %





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

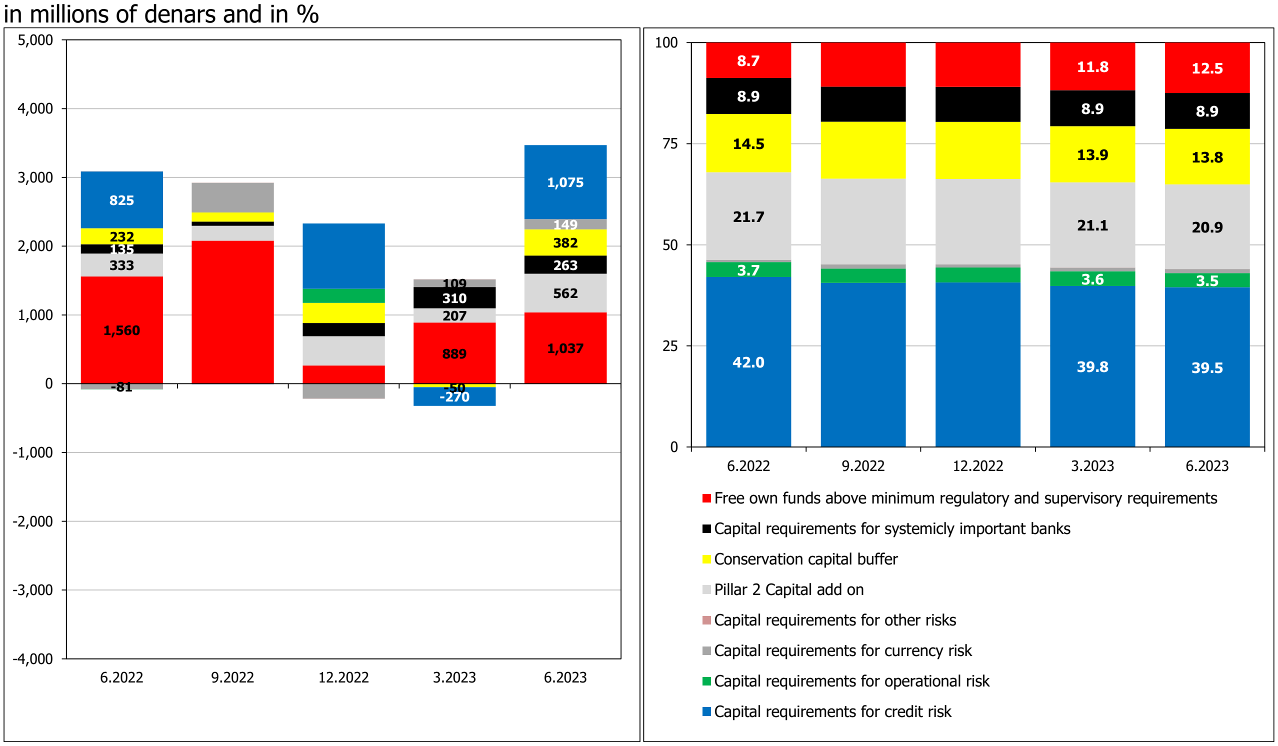
Analyzed by purpose of own funds, all components of capital requirements recorded an increase. The amount of capital for covering risks increased by Denar 1,224 million, or by around 3.1%, yet its share in total own funds of the banking system, decreased (from 44.4% as of 31.3.2023 to 44.0% as of 30.6.2023). The quarterly growth of capital for covering risks almost entirely stems from the increase in capital requirements for covering credit risks (by Denar 1,075 million)[42]. Therefore, the highest increase in total on-balance and off-balance sheet exposure of

[41] One small bank paid around 95% of the planned dividend for 2022 in a form of shares through new issue of shares, increasing the Common Equity Tier 1 capital. The rest of the dividend was paid in cash to the shareholders who according to the nominal amount of one share and limitations of the regulatory bodies cannot acquire shares from the new issue (as well as payment of any difference in relation to the value of the newly acquired shares). For more details, please visit Decision for share capital increase and Decision on the use and distribution of retained earnings for 2022.

[42] The increase in capital for covering credit risk is a result of the increased risk-weighted assets in the second quarter of 2023, in the structure of which a more significant contribution was registered by claims on other trade companies (Denar 7,009 million), small loans portfolio (Denar 4,494 million), claims on banks (Denar 922 million), claims covered with

the banking system was recorded by banks activities with 0% risk weight (by Denar 9,791 million or by 4.5%). More significant contribution to the growth was made by the positions with 100% weight (by Denar 8,918 million) mostly due to increased claims from other trade companies and portfolio of small loans. Total amount of capital buffers[43] increased by Denar 646 million, or by 3.2%, on a quarterly basis, and at the end of the second quarter of 2023 it almost maintained the same share of 22.6% in total assets of the banking system as in the previous three quarters. The amount of the capital supplement determined by the supervisory assessment registered a quarterly increase of Denar 562 million, or by 3% and accounts for 20.9% of the total own funds of the banking system. Around 30% of the quarterly growth of own funds was used to increase available own funds, above the minimum regulatory and supervisory requirements, which at the same time recorded the largest quarterly growth of 10% (increase of Denar 1,037 million), reaching 12.5% of total own funds.

Chart 40 Structure of quarterly growth (left) and balance (right) of own funds, by the requirement for covering risks and for maintaining the required capital buffers
in millions of denars and in %



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

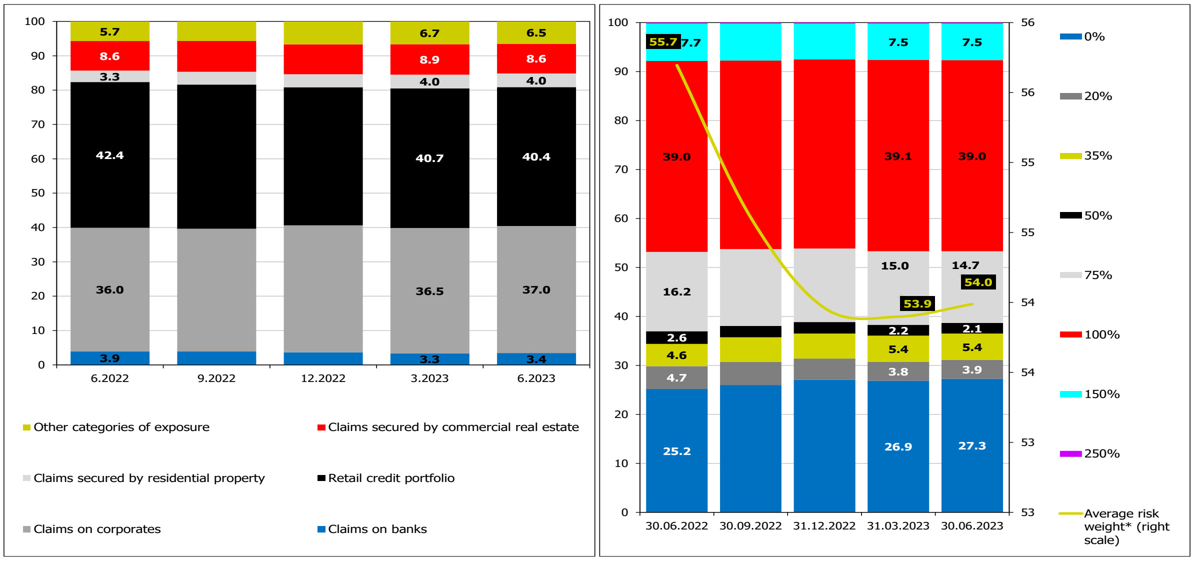
The faster quarterly growth of risk-weighted assets by 3.1% (Denar 13.4 million) compared to the growth in total on-balance and off-balance sheet exposure of the banking system (2.9)

residential properties (Denar 531 million) and commercial properties (Denar 189 million) and stakes in investment funds (Denar 2 million). At the same time, decline was registered by local and regional government (Denar 52 million) and claims from public institutions (Denar 1 million).

[43] Of four capital buffers specified in the Banking Law, in the second quarter of 2023, all banks were required to meet the capital conservation buffer of 2.5%, while banks identified as systemically important to meet the appropriate capital buffer rate for systemically important banks (for more information, visit the following link). The countercyclical capital buffer rate for exposures in the country amounting to 0.5% has been applied starting from 1 August 2023.

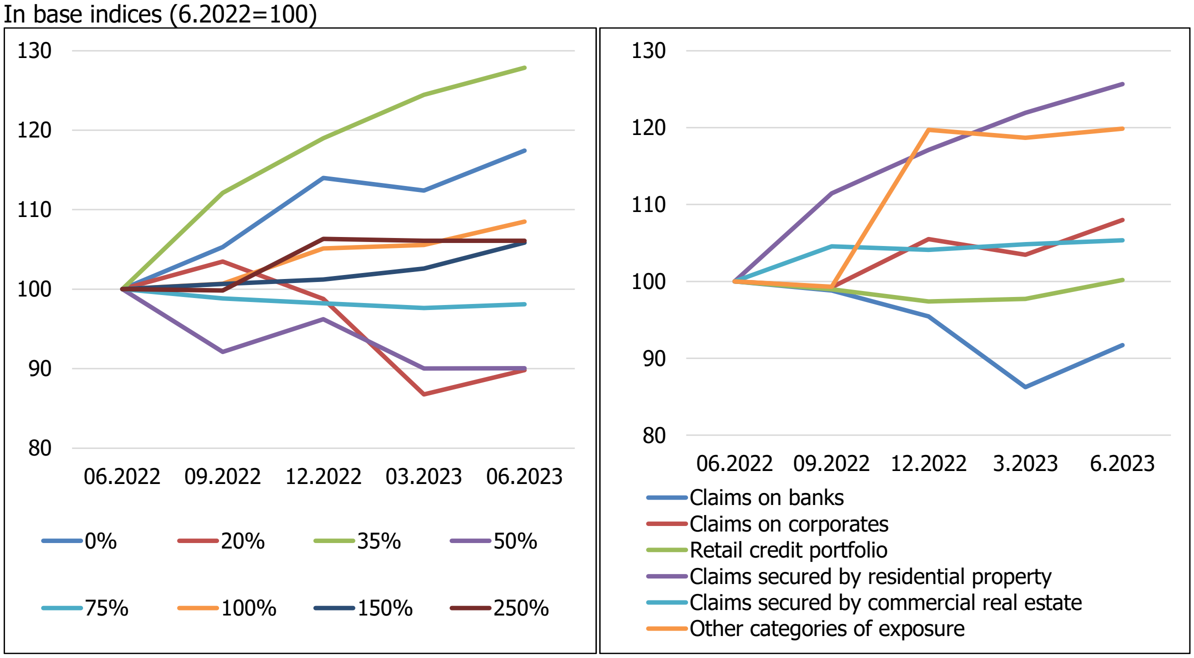
resulted in a minor growth (of 0.1 percentage points) of the average risk weight, to 54%. For more details on the capital requirements for covering risks and on the capital adequacy ratio, by group of banks, see the Annexes to this Report.

Chart 41 Structure of capital requirements for credit risk, by category of exposure (left) and total on-balance and off-balance sheet exposure, by risk weights (right)
in %



Source: National Bank, based on the data submitted by banks.
Note: The average risk weight is calculated as a ratio between risk-weighted assets and total banking system balance and off-balance sheet exposure.

Chart 42 Total on-balance and off-balance exposure, by risk weights (left) and category of credit risk exposures (right)
In base indices (6.2022=100)



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

The movement trend analysis of the total on-balance and off balance sheet exposure by risk weights indicates the most pronounced growth of risk-weighted activities of 35% including claims covered with residential properties, as well as low-risk activities of banks (investments in securities issued by central banks and governments). On the other hand, the growth of activities with higher risk weights is more moderate.

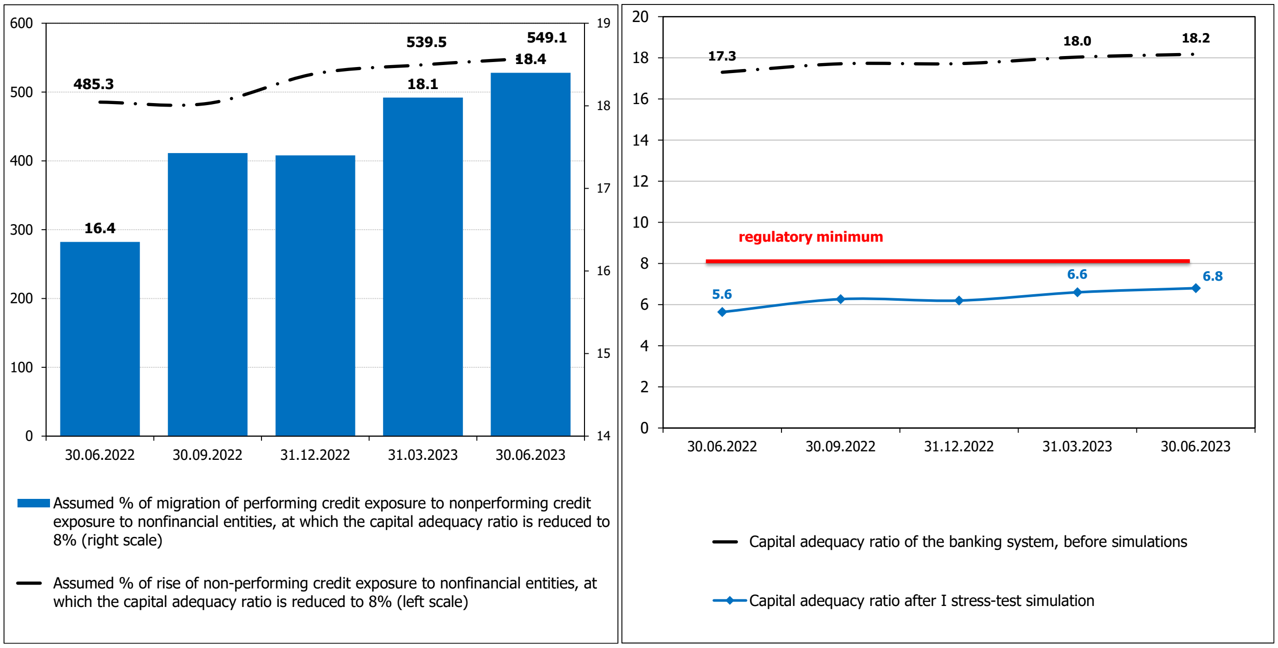
3.3. Stress-testing of the banking system resilience to hypothetical shocks

The banking system shows a satisfactory resilience to the regular simulated shocks, which assume extreme materialization of credit risk (isolated, or in combination with materialization of currency and/or interest rate risk in the banking book). The results of the regular stress-testing are better compared with 31.3.2023, mostly due to the higher initial level of capital adequacy ratio. The regular stress-testing highlights only the simulations with highly extreme assumptions, the probability for materialization of which is very low, which is in fact the point of the stress-testing process. For the purposes of this report, we represent the result of the **simulation for simultaneous materialization of credit, currency and interest risk[44].** After such shock, the capital adequacy ratio of the banking system reduced below requirement, to 6.8%, which is better compared to the last quarterly date when the capital adequacy ratio reduced to 6.6%.

Hypothetical shocks on the part of the credit risk had the greatest impact on the solvency of the banking system. The results of the stress test show that it takes a growth of 549.1% of non-performing loan exposure, i.e. migration of 18.4% from regular to non-performing loan exposure for the capital adequacy of the banking system to drop to 8%. However, these are rather extreme and less likely simulations, especially in the short term, given that in the second quarter of 2023 only 0.3% of the regular credit exposure to non-financial sector received a non-performing status. At the same time, the condition of non-performing credit exposure to non-financial entities registered a moderate quarterly increase of 3.2%. For more details on the capital requirements for covering risks and on the capital adequacy ratio, by group of banks, see the Annexes to this Report.

[44] Stress-testing includes simulation of simultaneous materialization of credit, currency and interest rate shocks, through:
- deterioration of the quality of credit exposure to non-financial entities, assuming a migration of 20%, 25% and 30% of the credit exposure to the non-financial sector of risk categories A, B and C-performing, respectively, to C-non-performing, D and E, where the migrated exposure is distributed equally (33.3% each) to the weaker risk categories, while maintaining the same percentage of coverage with impairment;
- growth of exposure to financial entities which is non-performing by 100%, at the expense of reducing the exposure in risk category A;
- depreciation of the denar against the euro by 30%; and
- growth of lending and deposit interest rates from 1 to 5 percentage points;

Chart 43 Necessary deterioration of the quality of credit exposure for the capital adequacy of the banking system to drop to 8% (left) and results of stress-test simulations(right)
in %



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

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

3. Bank activities

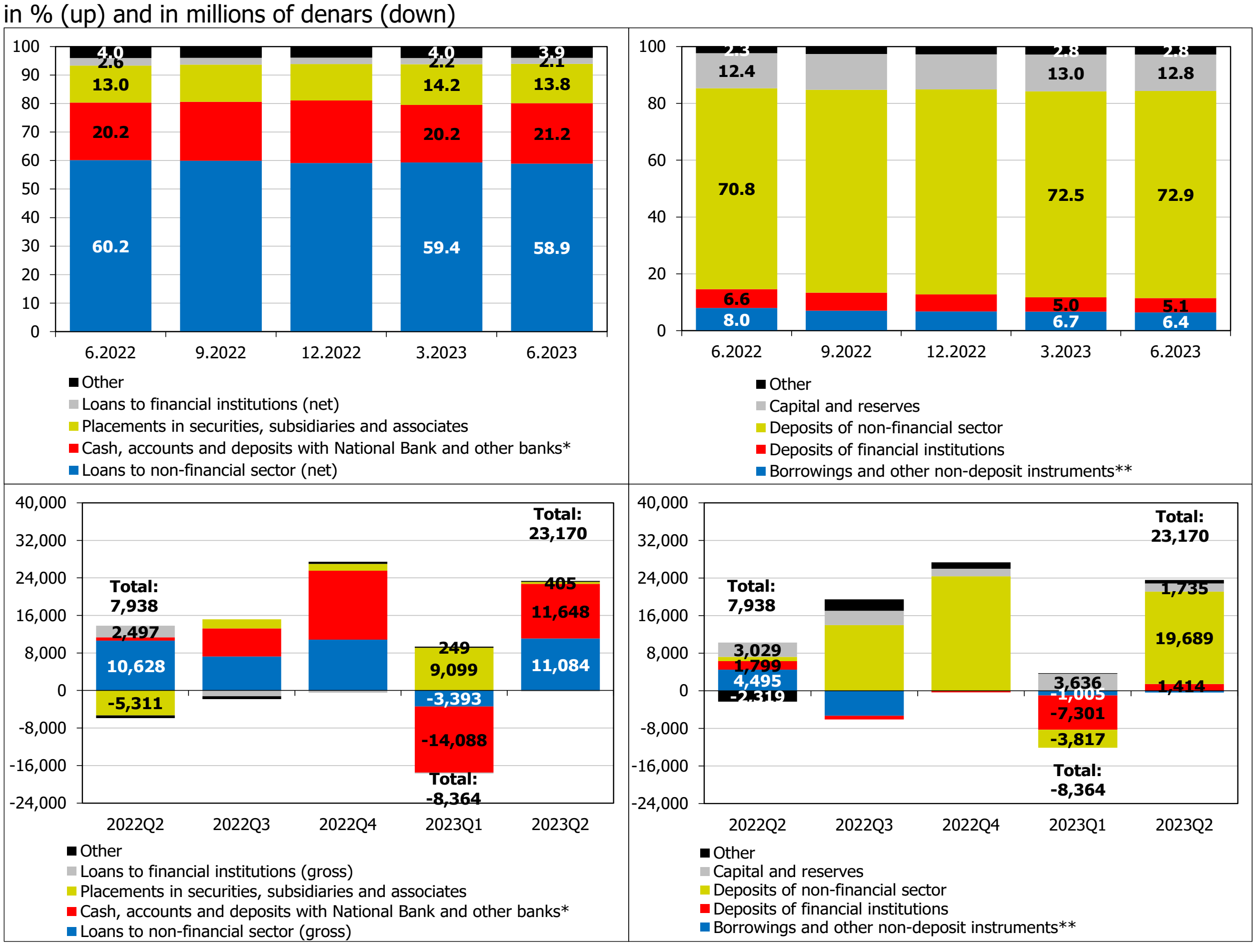
The macroeconomic environment in which banks operate is affected by global factors, the prospects of which remain uncertain given the prolonged war in Ukraine, followed by reduced, yet high inflation rates and tightened financial and lending conditions. In such circumstances, the performances of the macroeconomic indicators of the domestic economy are mainly as expected, and the National Bank continued with monetary policy tightening to stabilize inflation and inflationary expectations caused by external price shocks. Changes to the reserve requirement add to such monetary setup aimed at increasing denar savings, same as the macro-prudential measures that additionally strengthened the banking system.

After the decline in the first quarter of the year, primarily due to seasonal effects, the balance sheet of the banking system significantly increased in the second quarter of 2023, mostly due to the growth in deposits of non-financial entities. Corporate deposits made a large contribution to the quarterly growth of total deposits, albeit household deposits significantly grew. Favorable movements continue in terms of maturity and currency structure of savings (growth in long-term and denar deposits), reflecting the effects of the measures taken by the National Bank and the stabilized expectations of economic agents. Besides the deposits of non-financial entities, quarterly growth was also recorded in deposits of financial institutions, as well as in equity and reserves of banks, mostly due to retention of profit from previous year.

The largest portion of the growth of the banking system assets accounts for liquid assets and placements in loans to non-financial entities, which increased almost equally. Similar to deposit activity, corporate loans made larger contribution to the quarterly growth of total loans, although the household loans increased significantly as well.

Chart 44 Structure of assets (up left) and liabilities (up right) and structure of the quarterly growth of assets (down left) and liabilities (down right) of the banking system in % (up) and in millions of denars (down)

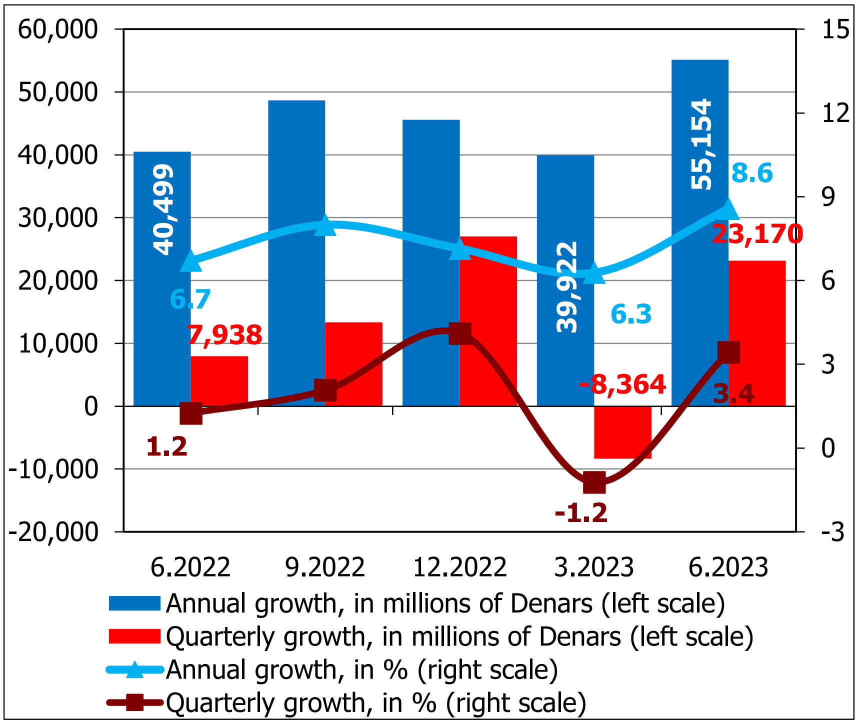
in % (up) and in millions of denars (down)



Source: National Bank, based on data submitted by banks. Note: * Cash, accounts and deposits with the NBRNM and other banks also include the assets in the guarantee fund of KIBS, as well as the reserve requirement in foreign currency; ** Other non-deposit instruments include issued subordinated and hybrid capital instruments.

In the second quarter of 2023, the balance sheets of the banking system increased by Denar 23,170 million, or by 3.4%, which is a significant improvement compared to both previous quarter (-1.2%), and the same quarter of 2022 (1.2%). Such quarterly growth is mostly conditioned by the increase in deposits of non-financial entities, with a growth recorded in deposits of financial institutions (mostly parent entities) as well, and in equity and reserves of banks (mostly from reinvestment of profits). On the assets side, banks increased, almost equally, the placements in loans to non-financial entities, as well as liquid assets, mostly through higher investments in deposit facilities with the National Bank and short-term deposits in foreign banks.

Chart 45 Assets growth of the banking system
in millions of denars and in %



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

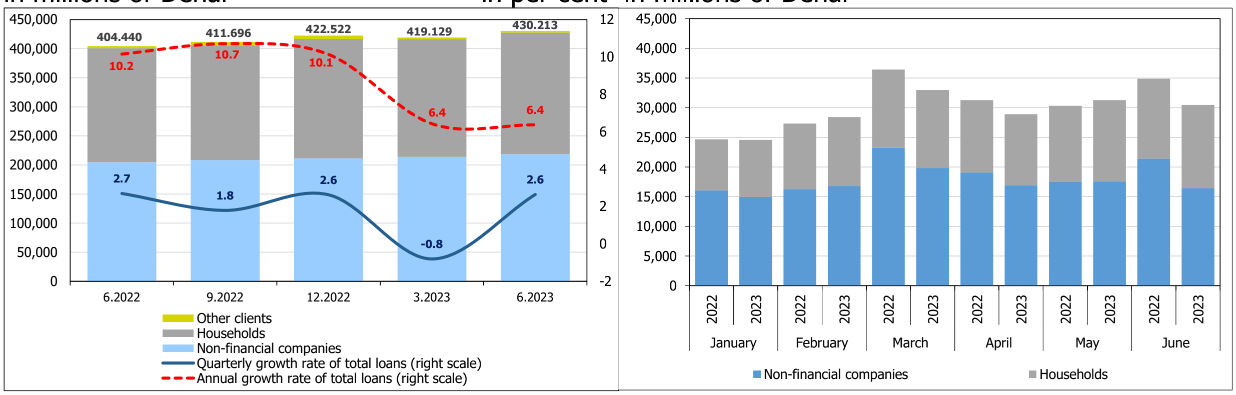
1.1. Loans to non-financial entities[45]

In the second quarter of 2023, the lending activity of banks grew, after the decline in the previous quarter, due to seasonal factors. The quarterly growth of loans to non-financial sector equals Denar 11,084 million or 2.6%, which is a similar to the quarterly growth pace of the four quarters of the previous year. The annual growth of loans equaled 6.4%, maintaining the level from the previous quarter and remaining above the annual growth forecast in April (6.2%). The annual credit growth rate decelerates compared to the growth rates during 2022, but remains moderate and above the average in the EU member states (of around 1.3% in the second quarter of 2023). These movements occur in conditions of net tightening of credit conditions amid further monetary policy tightening[46] and net decrease in the demand for household loans.

Bank-by-bank analysis shows increased lending in eight out of twelve banks[47] compared to the previous quarter, which is almost entirely due to the increased lending by large banks.

[45] Loans to non-financial entities include loans to resident and non-resident non-financial entities, including loans to private and public non-financial companies, central government, local government, non-profit institutions serving households (loans to other clients), sole proprietors and natural persons (loans to households).
[46] The Bank Lending Survey in the second quarter of 2023 shows that the total corporate credit standards were tightened on a net basis, while the total household credit standards registered slight net tightening. The net percentage of banks that announced a net tightening of corporate and household credit standards is lower compared to the first quarter of 2023. The National Bank policy rate in the second quarter of 2023 was increased two times by a total of 0.50 percentage points, from 5.50% in March to 6.00% in June.
[47] The analysis does not include DBNM AD Skopje.

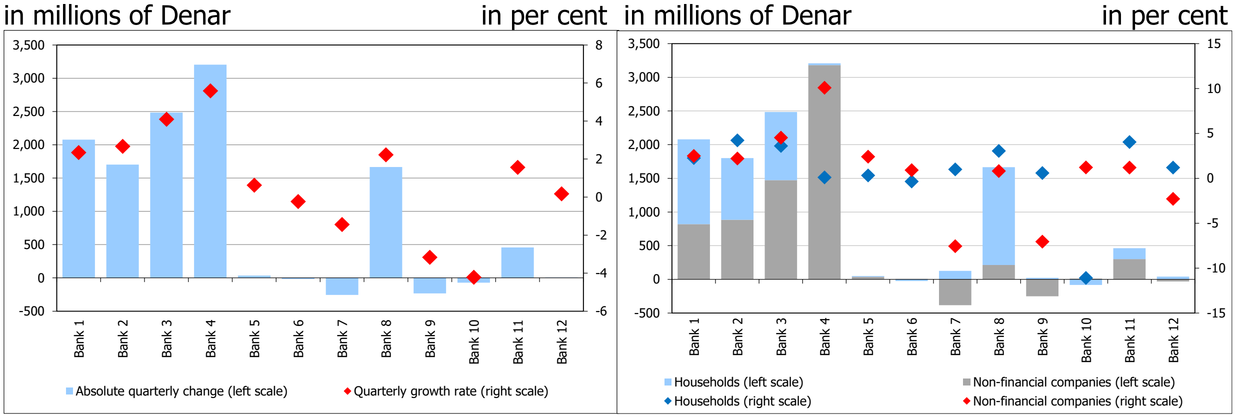
Chart 46 Loans to non-financial entities (left) and newly approved loans by sector (right)
in millions of Denar in per cent in millions of Denar



Source: National Bank based on data submitted by banks.

In the second quarter of 2023, newly approved loans to non-financial sector increased by 5.4% on a quarterly basis. The quarterly increase is due to the significant growth of newly approved corporate loans (15.4%), while the newly accepted household loans recorded a slight decline (1.2%). Similar movements were noted on an annual basis (compared to the second quarter of 2022), thus the growth of the new corporate loans was slower (3.1%), while the decline of new household loans was more pronounced (12.1%).

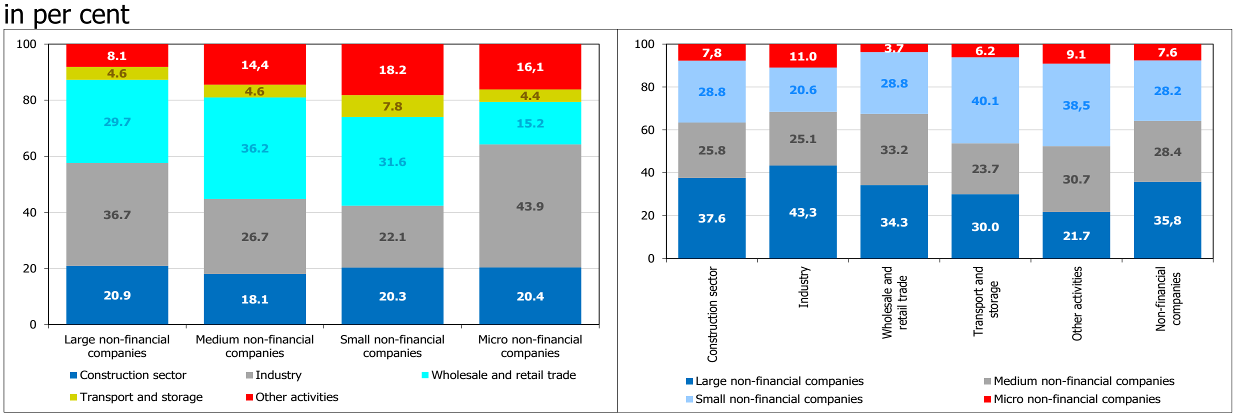
Chart 47 Growth of total loans to non-financial entities (left) and of loans to non-financial companies and households (right) by bank
in millions of Denar in per cent in millions of Denar in per cent



Source: National Bank based on data submitted by banks.

Loans to non-financial corporations in the second quarter of 2023 increased by Denar 6,270 million or by 3.1%, while annually the growth amounted to 6.6%, which is a slightly higher growth rate compared to the previous quarter, but twice as low as the double-digit growth rates in the previous year. However, the annual growth rate of these loans is above the average ten-year growth. The quarterly growth was driven by the significantly increased loans to clients in electricity supply (27.0%), with significant growth rates in corporate loans in the production of metals, chemical industry and catering sector (all by 8.9%). The positive movements in corporate lending compared to the previous quarter occur amid decreased net tightening of credit standards by banks in terms of interest rate, non-interest-bearing income and collateral requirements, as well as a slight net increase of demand for loans. However, the annual growth of loans decelerated, which particularly reflects decreased loans in real estate activities, as well as a significantly slower growth of loans in trade, construction, food industry and production of machinery and equipment. The third quarter of 2023 expects net easing of the credit standards amid moderate net increase of the demand for loans[48].

Chart 48 Structure of loans to non-financial companies by individual activities and according to the size of the company
in per cent



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

According to the size of non-financial companies[49], loans to large enterprises have the largest share (35.8%), which increased compared to the previous quarter, while the lowest share was registered in loans to microenterprises (7.6%), which is partly due to higher amounts of loans to larger enterprises, and partly due to banks' hesitancy for lending to smaller enterprises[50]. Analyzed by clients' activity, the largest share was registered in loans to companies in wholesale and retail trade (31.0%) and industry (30.3%), with a significant share of loans to construction companies (19.9%).

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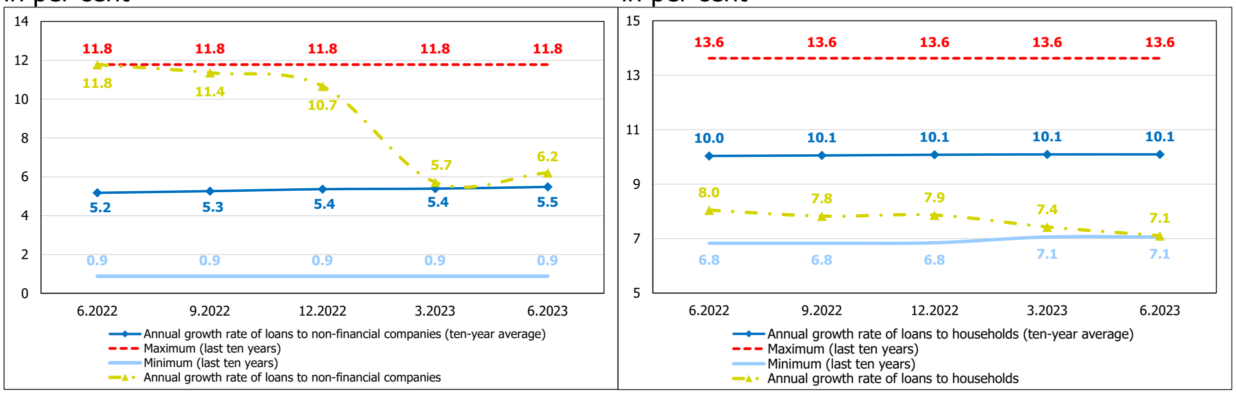
[48] Source: Bank Lending Survey in the second quarter 2023.
[49] The criteria for classification of entities by size (into large, medium, small and micro) are defined in Article 470 of the Law on Trade Companies.
[50] Some of the reasons that banks are not prone to financing small and medium-sized enterprises are the poor financial literacy, poor corporate reporting and the unwillingness of enterprises to disclose and share business information (for more information see p. 5 in Macedonia2025 (2020). *Barriers for access to finance for MSMEs in North Macedonia: Stock of existing data and knowledge*.

Chart 49 Ten-year moving average of annual growth rates of loans to non-financial companies (left) and household loans (right)

in per cent



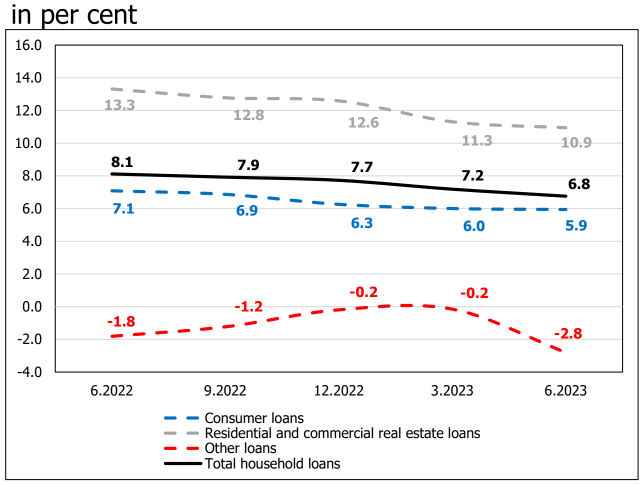
Source: National Bank based on data submitted by banks.

* Note: Excluding the effect of all mandatory net write-offs made in the period 1.1.2016 - 30.6.2023.

Lending to households in the second quarter of 2023 registered higher growth on a quarterly basis amid more moderate net decrease in demand for loans, as well as increase in interest rate on consumer and housing loans. The household loans increased by Denar 4,919 million or by 2.3% on a quarterly basis, which is almost twice as high as the growth in the previous quarter. However, the annual growth rate continued to slow down and amounted to 6.8%. Excluding the effect of net write-offs, the annual growth rate equaled 7.1%, which is at the minimum value in the last decade. Observing the type of credit product, loans for purchasing residential and commercial properties grew quarterly by 2.9%, while consumer loans grew by 2.5%. The third quarter of 2023 expects more pronounced net tightening of total household credit standards amid moderate net increase in demand for loans.[51]

Chart 50 Annual growth rates of household loans;

in per cent



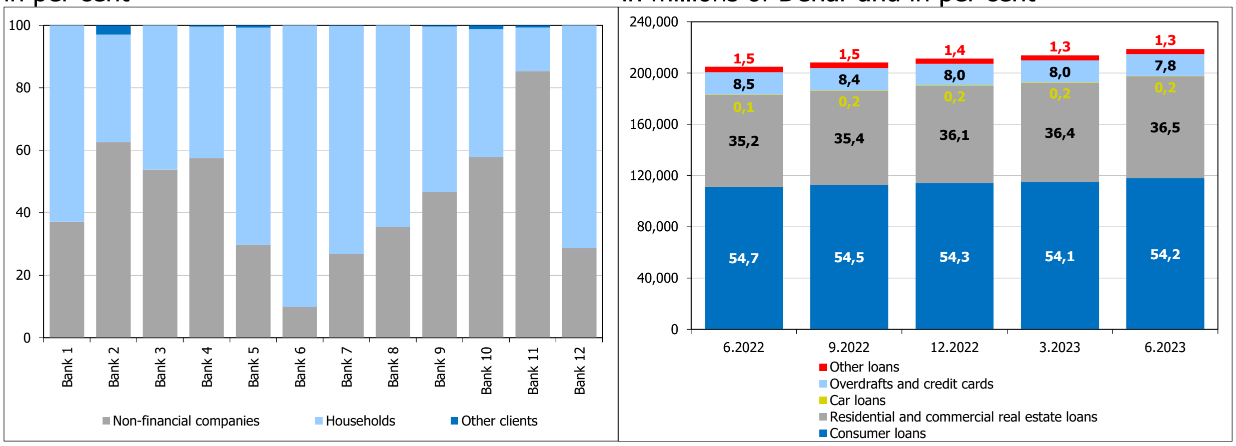
Source: National Bank and National Bank's Credit Registry based on data submitted by banks.

[51] Source: Bank Lending Survey in the second quarter 2023.

Households remain a dominant sector in total credit portfolios of banks with 50.8%, which is a decrease of 0.2 percentage points compared to the previous quarter. Analyzing by credit product, the share of non-earmarked loans equals 63.3% in total loans to natural persons, which is a fall of 0.2 percentage points compared to the previous quarter, which means continuation of the long-term trend of decrease at the expense of the increase in the share of housing loans.

Chart 51 Sectoral structure of loans to non-financial entities, by bank (left) and structure of loans to natural persons, by product (right)

in per cent / in millions of Denar and in per cent

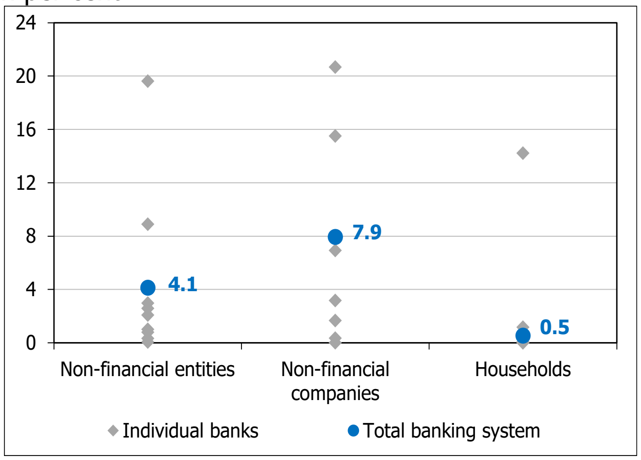


Source: National Bank's Credit Registry based on data submitted by banks.

Green loans[52] registered an intensive growth, but their share in banks' loan portfolios remains low and equals 4.1%. As of 30.6.2023, total green loans to non-financial sector grew by Denar 2,067 million or by 13.2% compared to 31.3.2023. The high growth is mainly due to the increased green corporate loans by 13.7%, while green household loans grew by 6.4%.

[52] For the purposes of this report, green loans denote loans that are intended to improve the energy efficiency of the households and the corporate sector; loans for support of the investments in green technologies, materials and solutions; loans for support of investments in renewable energy sources, control and prevention of pollution, protection of the environment, mitigation of climate risks, etc.

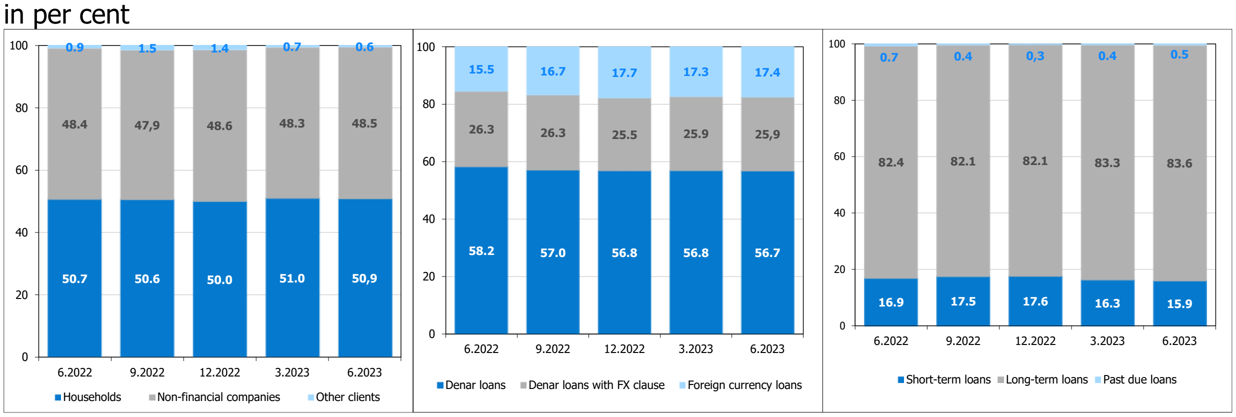
Chart 52 Share of green loans in total loans to non-financial entities, by sector and by bank
in per cent



Source: National Bank based on data submitted by banks.

The currency structure analysis shows that denar and loans with currency component registered and increase in the second quarter of 2023. Compared to the previous quarter, denar loans increased by Denar 5,780 million or by 2.4%[53], while loans with currency component grew by Denar 5,304 million or by 2.9%[54]. Denar loans account for 56.7% in total loans, which is a decline of 0.1 percentage point on a quarterly and 1.5 percentage points on an annual basis. Within loans with currency component, the share of loans with foreign currency clause is higher (25.9%) compared to foreign currency loans (17.4%).

Chart 53 Structure of total loans by sector (left) and currency (middle), and structure of regular loans by maturity (right)
in per cent



Source: National Bank based on data submitted by banks.

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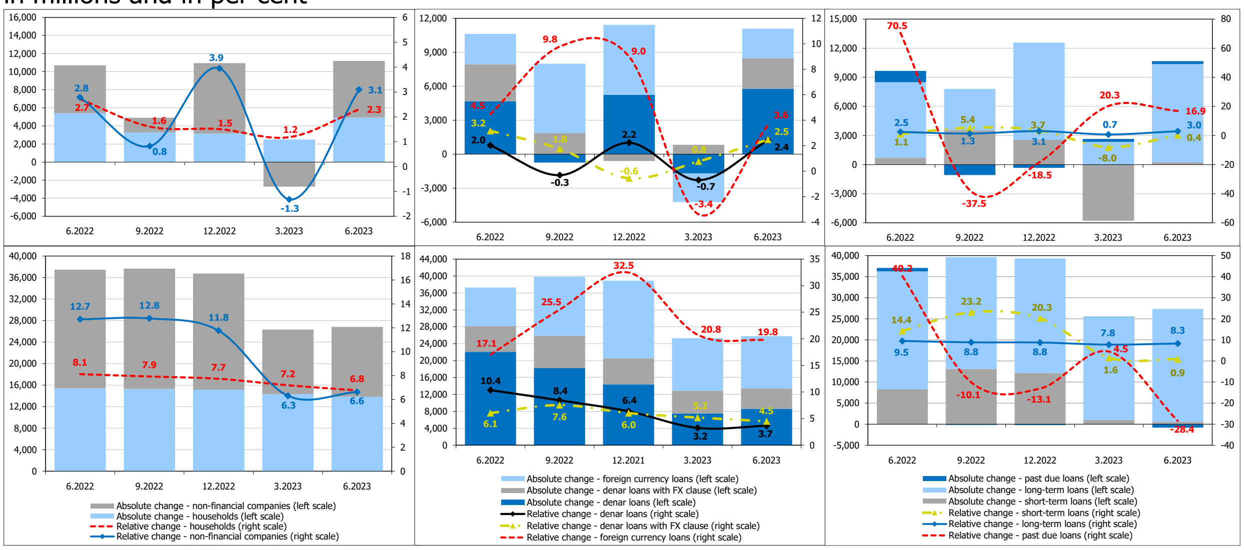
[53] The quarterly increase in denar loans to non-financial sector is due to higher corporate loans by Denar 3,970 million or by 3.3% and household loans by Denar 1,889 million or by 1.6%, while loans to other clients registered a decline of Denar 80 million or by 6.0%.

[54] The increase in loans with currency clause to non-financial sector on a quarterly basis reflects the growth in denar loans with currency clause by Denar 2,697 million or by 2.5% and foreign currency loans by Denar 2,607 million or by 3.6%. The increase in denar loans with currency clause was primarily due to increased household loans (by Denar 2,362 million or by 2.9%), as well as increased corporate loans (by Denar 372 million or by 1.4%). The increase in foreign currency loans is mainly due to increased corporate loans (by Denar 1,928 million or by 3.4%), as well as due to increased household loans (by Denar 669 million or by 4.6%).

Observing maturity[55], both short-term and long-term loans registered growth in the second quarter of 2023. Long-term lending noted a more pronounced growth on a quarterly basis, which grew by Denar 10,124 million or by 3.0%, while short-term lending slightly increased by Denar 246 million or by 0.4%. Such movements contributed to further increase in the prevailing share of long-term loans, which reached 83.6%. Denar loans increased quarterly by Denar 294.3 million or by 16.9%)[56].

Chart 54 Quarterly (top) and annual (bottom) growth of loans, by sector, currency and maturity
in millions and in per cent



Source: National Bank based on data submitted by banks.

1.2. Deposits of non-financial companies

In the second quarter, deposits registered a quarterly growth of Denar 19,689 million or 4.0%, following the decline in the first quarter of 2023. On annual basis, total deposit base of banks increased by Denar 54,191 million, or by 11.9%, which is an acceleration compared to the annual growth in the previous quarterly date. The growth of deposits in the second quarter of 2023 was mostly due to deposits of non-financial companies, although deposits of households significantly increased.

Bank-by-bank analysis shows that all banks registered a quarterly deposit growth, with the largest share (of 82%) of the group of large banks in the growth of the total banking system deposits.

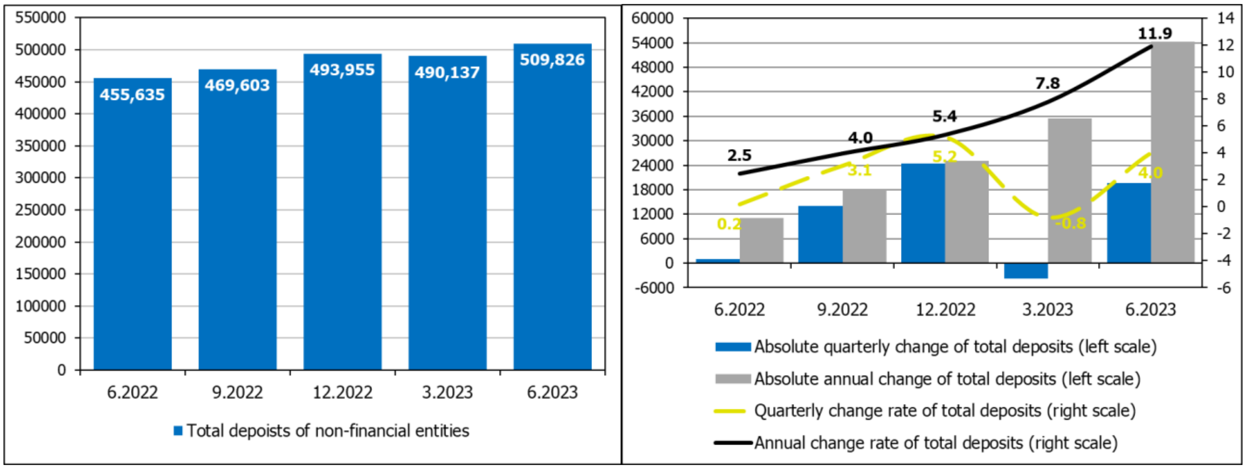
The sector-by-sector analysis shows higher contribution of non-financial companies to the deposit growth. After the decline in the previous quarter, deposits of non-financial companies increased quarterly by Denar 11,315 million or by 8.1%. Annually, these deposits registered a more significant increase of Denar 23,131 million or 18.2%.

[55] The analysis of maturity structure excludes non-performing loans.
[56] The share of past due loans is only 0.5% in total regular loans, thus their changes are subject to large oscillations.

Households, as the traditionally most significant deponent in the Macedonian banking system (share of 66.7% in total deposits), continued to grow (by Denar 8,312 million or by 2.5%), at an accelerated pace compared to the previous quarter (1.1%). Moreover, these deposits registered an accelerated growth on an annual basis. Thus, compared to the same period in 2022, their growth amounted to Denar 28,505 million or 9.1%.

Chart 55 Stock (left) and flow (right) of deposits of non-financial companies

in millions of denars | in millions of denars and in %



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

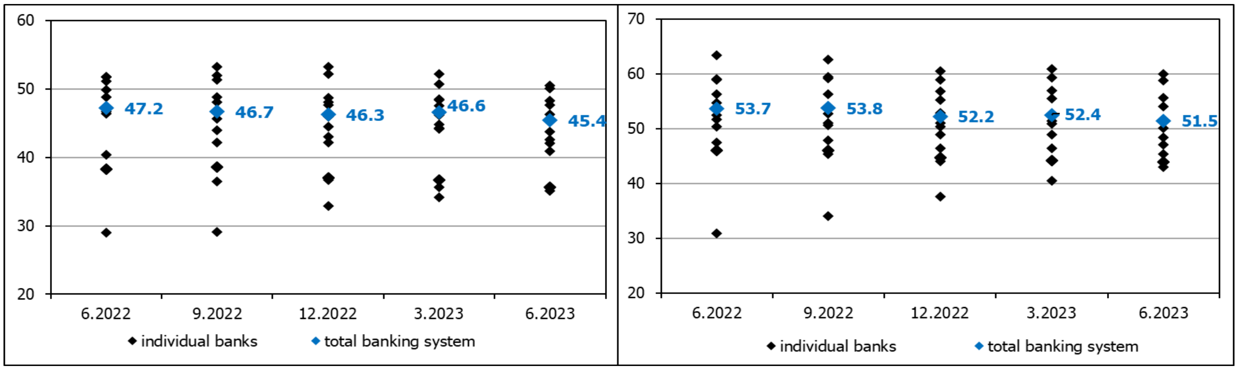
Observing the currency, the largest contribution to the quarterly growth in deposit base was made by the increased denar deposits, which grew by Denar 16,543 million or by 6.3%[57] (in the previous quarter, denar deposits declined).

The quarterly growth of denar deposits mostly resulted from demand deposits of non-financial companies, which increased by Denar 8,326 million or by 10.4%. Large contribution to the growth of denar deposits was made by the household sector with an increase in denar deposits of Denar 7,245 million or 4.6%. In this sector, the growth of denar deposits was conditioned by the growth of demand deposits (of Denar 3,833 million or 3.9%), as well as the growth in long-term deposits (of Denar 3,355 million or 8.2%. **The quarterly growth of denar deposits also increased their share in total deposit base up to 54.5% (53.3% as of 31.3.2023), at the expense of the decline in the share of foreign currency deposits, to 45.4% (46.6% as of 31.3.2023).**

[57] Annually, denar deposits recorded a growth of Denar 37,967 million or 15.8%, which, analyzed by maturity, is mostly due to the growth of demand deposits, and by sector, mostly results from households.

Chart 56 Share of foreign currency deposits in total deposits of the banking system (left) and in total household deposits (right)

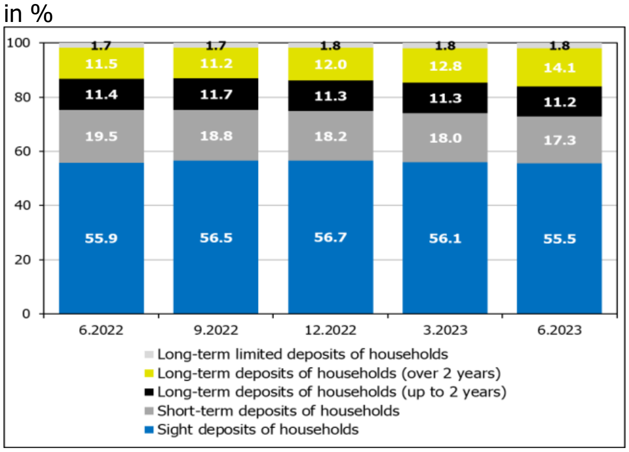
in %



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

Chart 57 Maturity structure of household deposits

in %



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

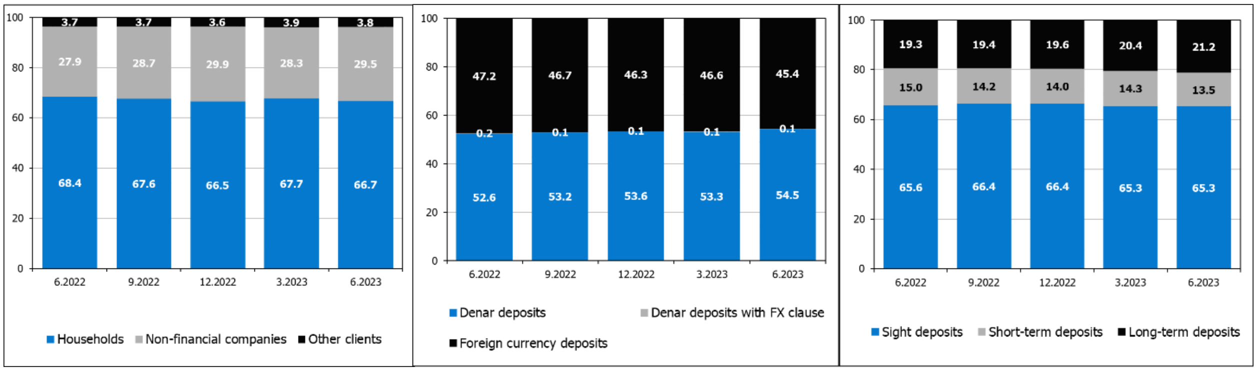
Analyzing maturity, demand deposits made the largest contribution (65.9%) to the quarterly growth of total deposit base, with a quarterly increase of Denar 12,971 million or 4.1%. At the same time, long-term deposits significantly increased by Denar 8,176 million or 8.2%[58], while short-term deposits declined by Denar 1,458 million or 2.1%.

Demand deposits still dominate the total deposit base (65.3% at the end of the second quarter of 2023, same as of 31.3.2023).

Analyzing the maturity structure of household deposits, in the second quarter of 2023, there was an increase in the structural share of long-term deposits (from 26% as of 31.3.2023, to 27.1% as of 31.6.2023). On the other hand, the share of demand deposits and short-term deposits reduced by 0.6 percentage points each, to 55.5% and 17.3%, respectively.

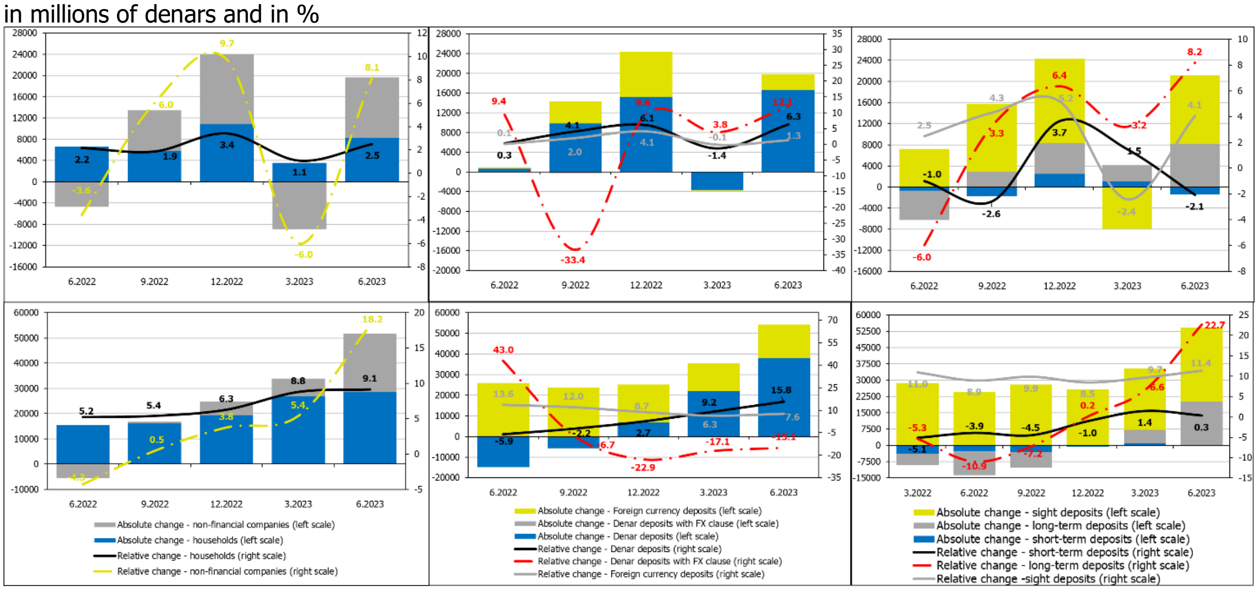
[58] The quarterly increase of long-term deposits as of 30.6.2023, was mostly due to denar deposits (by Denar 5,460 million or by 11.0%), while foreign currency long-term deposits increased by Denar 2,683 million or by 5.4%.

Chart 58 Structure of total deposits, by sector (left), currency (middle) and maturity (right)
in %



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

Chart 59 Quarterly (up) and annual (down) deposit growth by sector (left), currency (middle) and maturity (right)
in millions of denars and in %

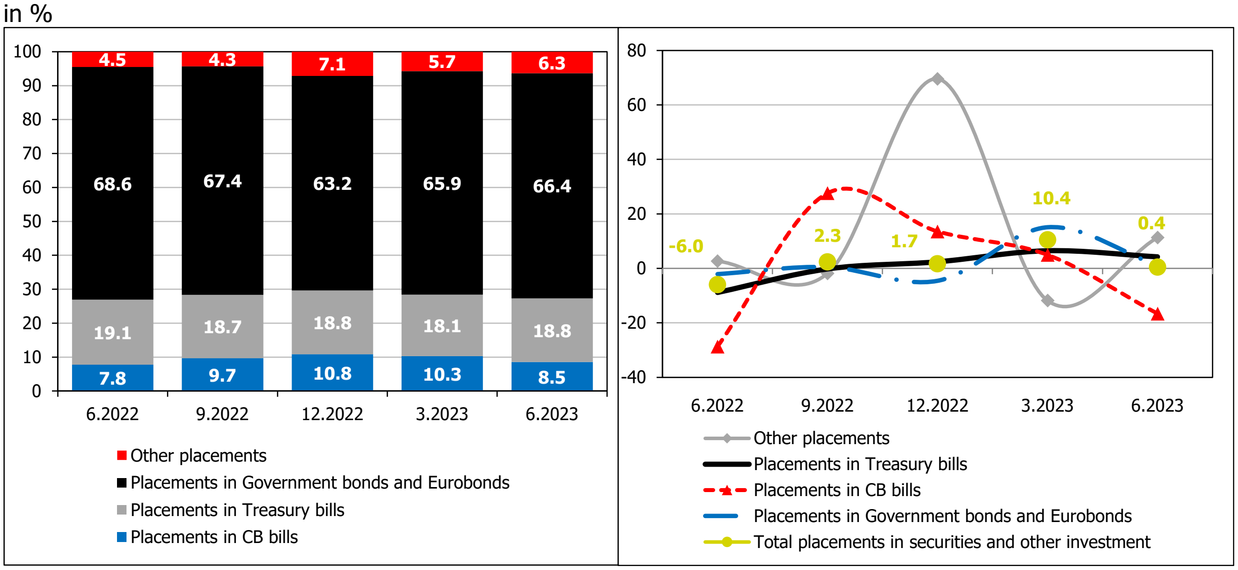


Source: National Bank, based on the data submitted by banks.

1.3. Other activities

Banks' placements in securities, subsidiaries and associates[59] increased slightly on a quarterly basis, by Denar 405 million (or by 0.4%), but their share in banks' total assets decreased to 13.8% (14.2% at the end of the previous quarter). The largest quarterly growth of 11.3% (Denar 619 million) was noted by other investments due to placements of one large bank in bills issued by foreign central banks and governments. Moderate quarterly growth was recorded by placements in treasury bills[60] of Denar 734 million or 4.2%, with a smaller increase in banks' placements in government bonds (1.1%). On the other hand, CB bills placements with the National Bank declined by 16.6%[61]. Such developments increased the share of investment in treasury bills and government bonds in total banks' placements in securities to 85.2% as of 30.6.2023 (84% as of 31.3.2023) at the expense of the decrease in the share of investments in CB bills to 8.5% (10.3% as of 31.3.2023).

Chart 60 Structure (left) and quarterly growth (right) of investments in securities, subsidiaries and associates
in %



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

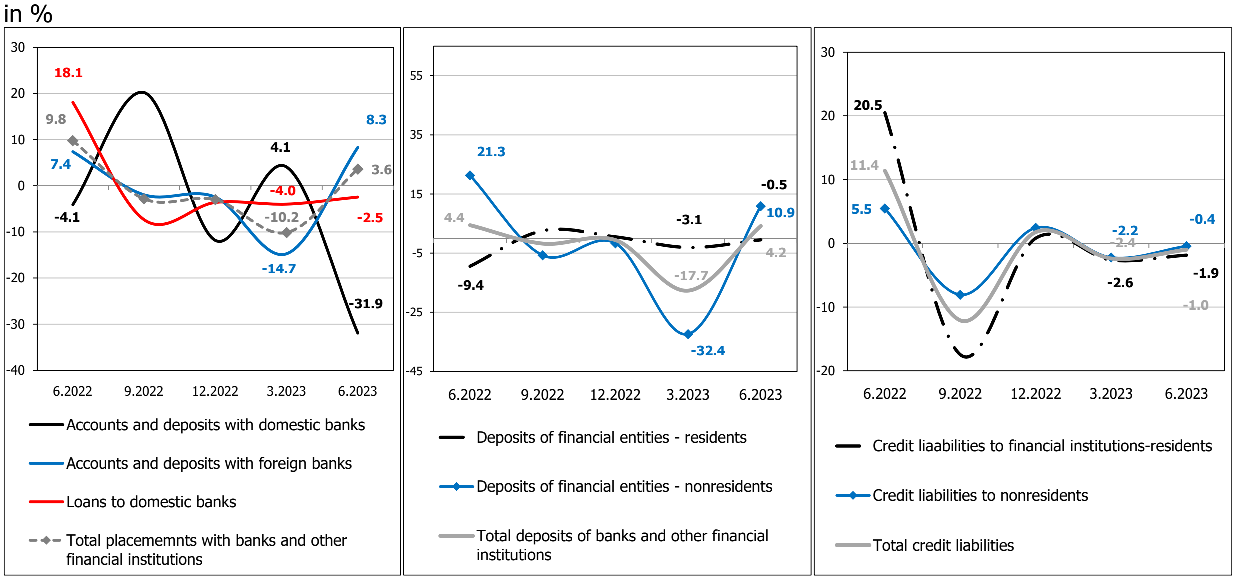
Placements with banks and other financial institutions (accounting for 7% of the total assets of the banking system) in the second quarter of 2023 increased by Denar 1,703 million, or 3.6%. Such increase mainly resulted from deposits in foreign banks by Denar 2,463 million or by 8.3%, while loans to domestic banks and accounts and deposits in

[59] The analyses of these investments are based on their net book value.
[60] During the second quarter of 2023, interest rates on one-year treasury bills set by the Ministry of Finance registered no changes and remained at 4%. On the other hand, interest rate on government bonds grew and at the latest issuance held in the second quarter of 2023 it amounted to 5,901 for bonds without currency clause and 5.65% for bonds with currency clause.
[61] At the CB bills auctions, held in the second quarter of 2023, the offered amount of CB bills remained the same, i.e. Denar 10,000 million, while the demand at the auction held in June was below the supply and amounted to Denar 8,334 million. During the second quarter of 2022, as well as in the past quarters, the National Bank continued to increase the interest rates, whereby the interest rate on CB bills increased by 0.50 percentage points to 6%. In the last auction held in August 2023, the interest rate on CB bills reached 6.15%.

domestic banks declined (by Denar 345 million and Denar 583 million, or by 2.5% and 31.9%, respectively[62]).

Total banks' loan liabilities (which account for 5.4% of total liabilities of the banking system) decreased by Denar 387 million, or 1% quarterly, which is mostly due to reduced loan liabilities to domestic banks[63]. **Deposits from banks and other financial institutions,** despite the quarterly growth, remain a modest source of banks' financing, accounting for 6.5% of total liabilities of the banking system. The quarterly growth of deposits of banks and other financial institutions of Denar 1,414 million (by 4.2%) almost entirely results from the growth of deposits of non-resident financial institutions of Denar 1,516 million, or 10.9%, with the greatest growth registered in short-term deposits up to one month (an increase of Denar 1,547 million).

Chart 61 Quarterly growth rate of claims on financial institutions (left), loan liabilities (right) and deposits of financial institutions (middle)
in %

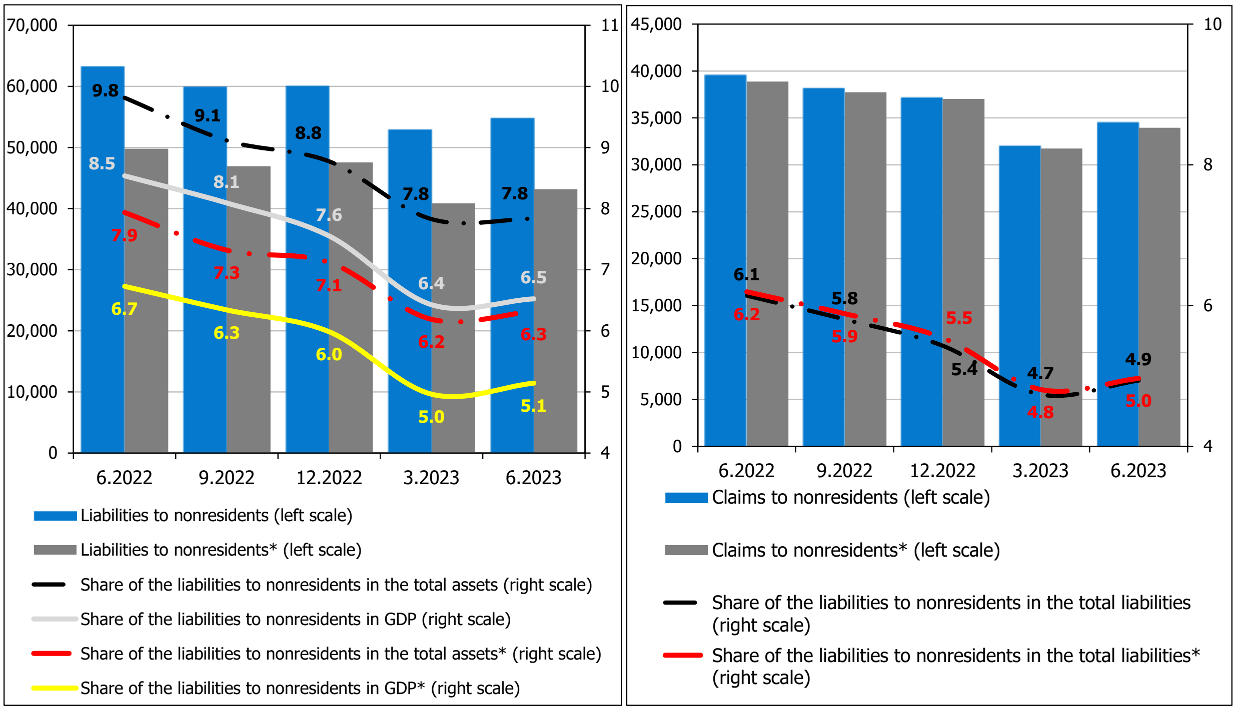


Source: National Bank, based on the data submitted by banks.

[62]The quarterly decrease in loans to domestic banks almost entirely stems from the decrease in long-term loans to banks in foreign currency with maturity of over two years, with DBNM, while the decrease in accounts and deposits with domestic banks is due to the decrease in term deposits in foreign currency in domestic banks.

[63] In the second quarter of 2023, largest contribution to the decrease of loans to domestic banks was made by the decrease in foreign currency loan liabilities with five-year maturity with one large bank (by Denar 173 million) and with maturity of two to five years with one large bank (by Denar 70 million).

Chart 62 Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %

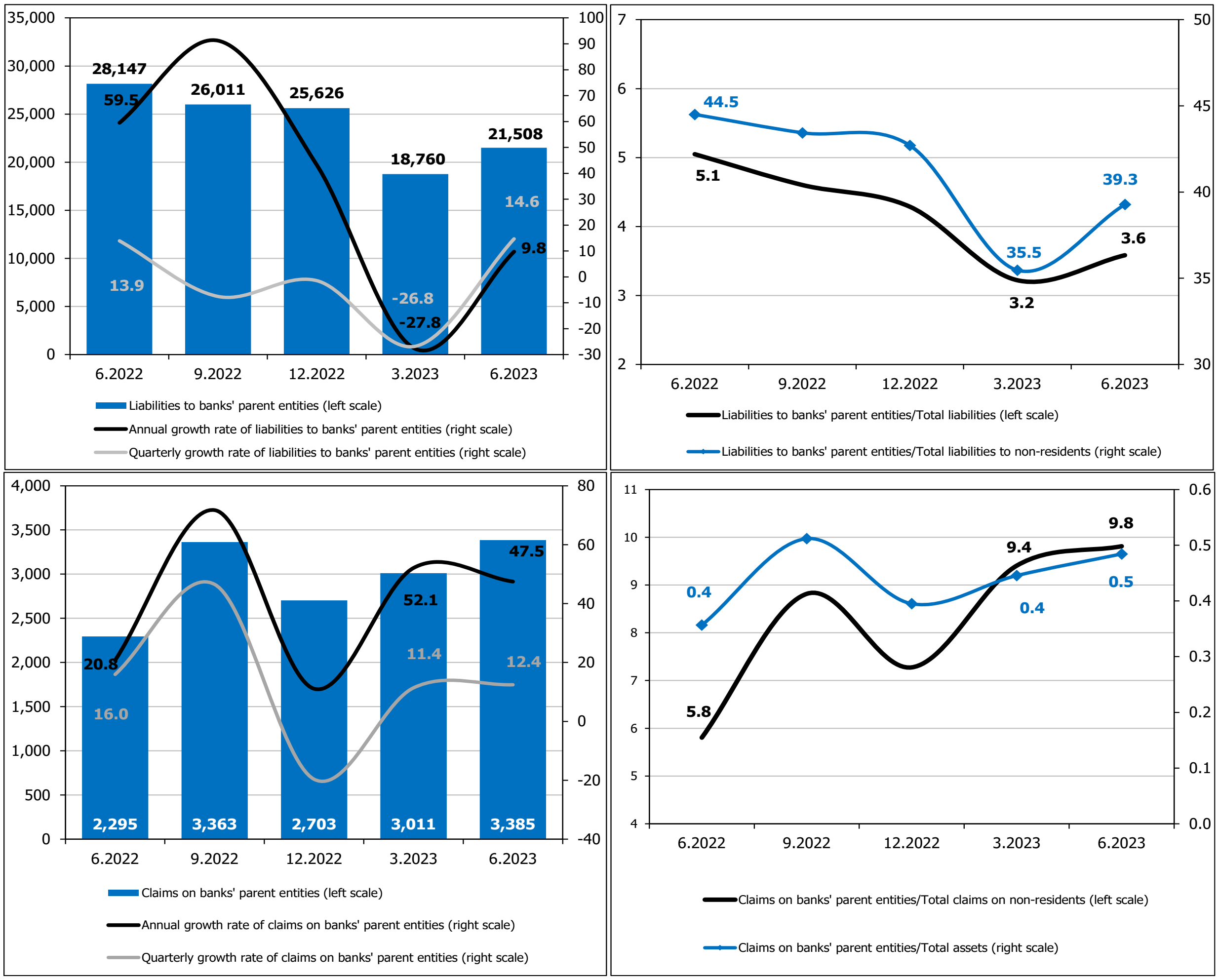


Source: National Bank, based on the data submitted by banks.
*Without the share of DBNM AD Skopje

The scope of banking system activities with non-residents is constantly very limited. As usual, as of 30.6.2023, banks owe[64] more than they claim on non-residents, with liabilities recording slower growth compared to the increase in claims on non-residents. Domestic banks' liabilities to non-residents went up quarterly by Denar 1,853 million, or 3.5%, and their share in total banking system liabilities remained the same as in the previous quarter of 7.8%[65] at the end of the second quarter of 2023. Such quarterly increase almost entirely results from increased liabilities on short-term foreign currency deposits to non-resident financial institutions. The quarterly growth of banks' claims on non-residents increased and amounted to Denar 2,488 million, or 7.8%, largely due to increased foreign currency time deposits abroad.

[64] As of 30.6.2023, seven 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 6.3%.

Chart 63 Liabilities to (top) and claims on (bottom) banks' parent entities
in millions of denars and in %



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

Liabilities to banks' parent entities continued to increase, but do not represent a significant source of financing to domestic banks' activities. In the second quarter of 2023, banks' liabilities to their parent entities increased by Denar 2,748 million (or 14.6%) largely due to the increase in short-term deposits of the parent entity with 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 increased to 3.6% and 39.3%[66], respectively. Claims on parent entities registered a quarterly growth of Denar 374 million or 12.4%, thus increasing its share in total asset to 0.5% (0.4% as of 31.3.2023) and claims on non-residents of 9.8% (9.4% as of 31.3.2023).

[66]As of 31.3.2023, these rates equaled 3.2% and 35.5%, respectively.

4. Profitability

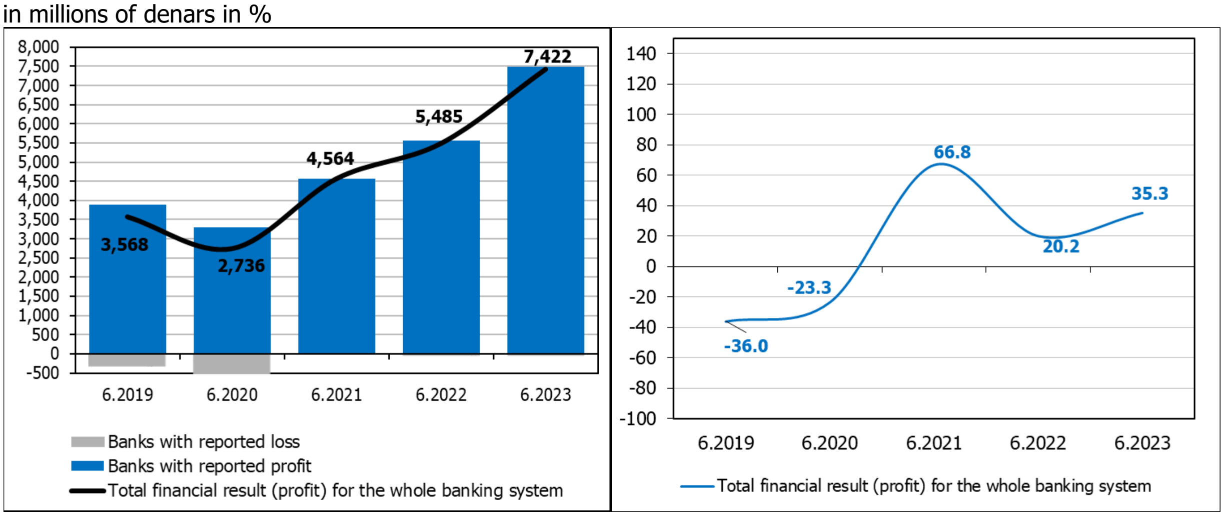
In the first half of 2023, the domestic banking system reported an accelerated profit growth compared to the same period last year. Amid rise in interest rate and interest-bearing assets, the higher financial result was conditioned on the interest income, the growth of which was supported by interest rates of almost all sectors. Small contribution to the profit increase was made by higher net income from commissions. Expenditures increased on all bases. The accelerated profit growth positively affected the operating efficiency and profitability ratios of the banking system.

Both lending and deposit interest rates hiked in the first six months of 2023.

2.1. Banking system profitability and efficiency ratios

In the first quarter of 2023, the banking system generated profit of Denar 7,422 million, which is by Denar 1,937 million, or by 35.3% higher compared to the same period of the previous year. Higher net interest income was the main engine of the profit growth (net interest income increased by Denar 3,554 or 43.6%) with a significantly lower contribution from net fee and commission income (the increase of which equals Denar 191 million or 6.4%). In contrast, expenses grew on all grounds. Operating costs increased by Denar 868 million or by 13.5%, which is a faster growth compared to the growth of these costs in the same period of the previous year (increase of Denar 386 million or 6.4%). **The net impairment cost increased by Denar 490 or 34%.** Negative contribution to net profit was made by other income, which compared to the same period of the previous year were lower by Denar 425 million or by 19.1%.

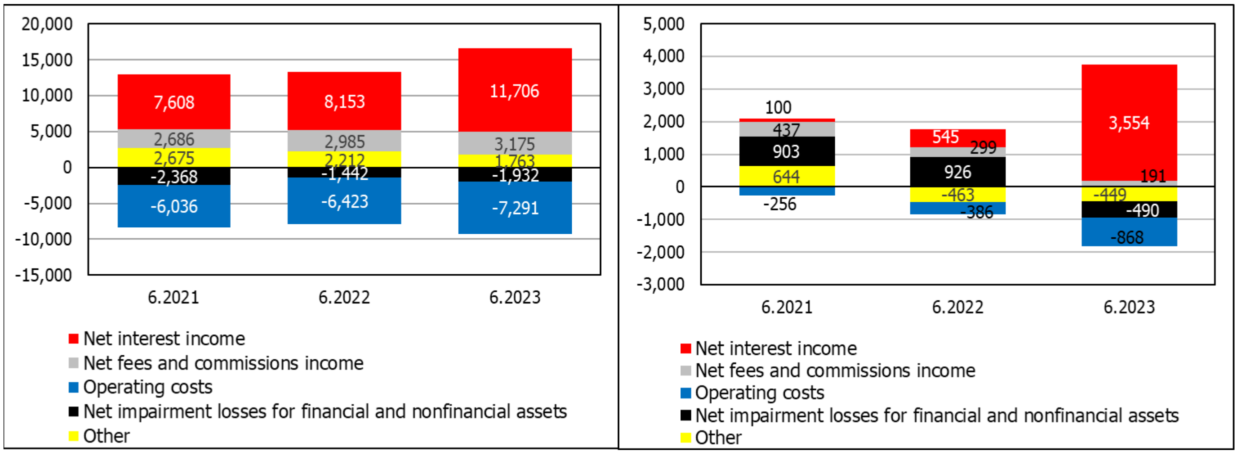
Chart 64 Total profit recognized by banks (left) and annual growth (right)
in millions of denars in %



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

Chart 65 Contribution to the generation of profit (left) and to the growth of profit (right) of banks

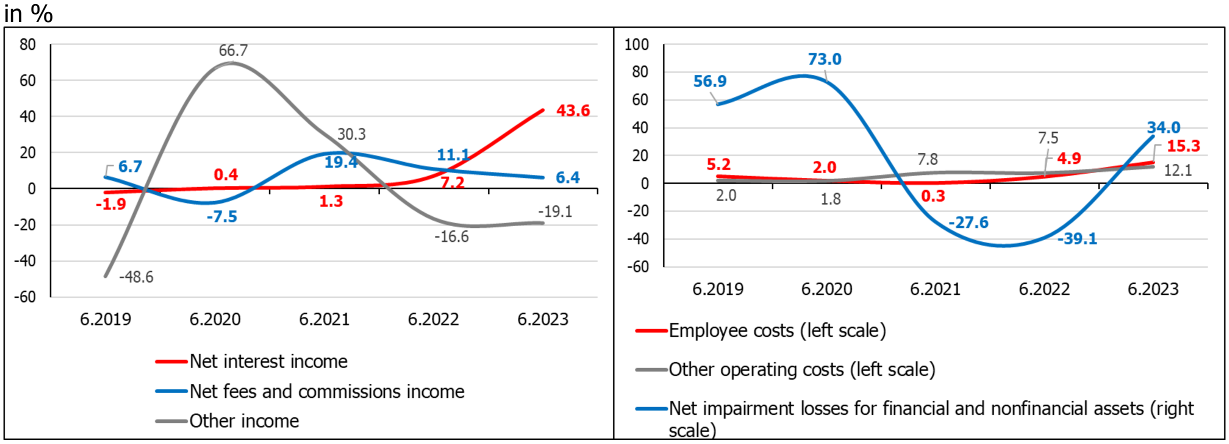
in millions of denars



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

Chart 66 Annual growth rate of the main income (left) and expenditure items (right) of banks

in %



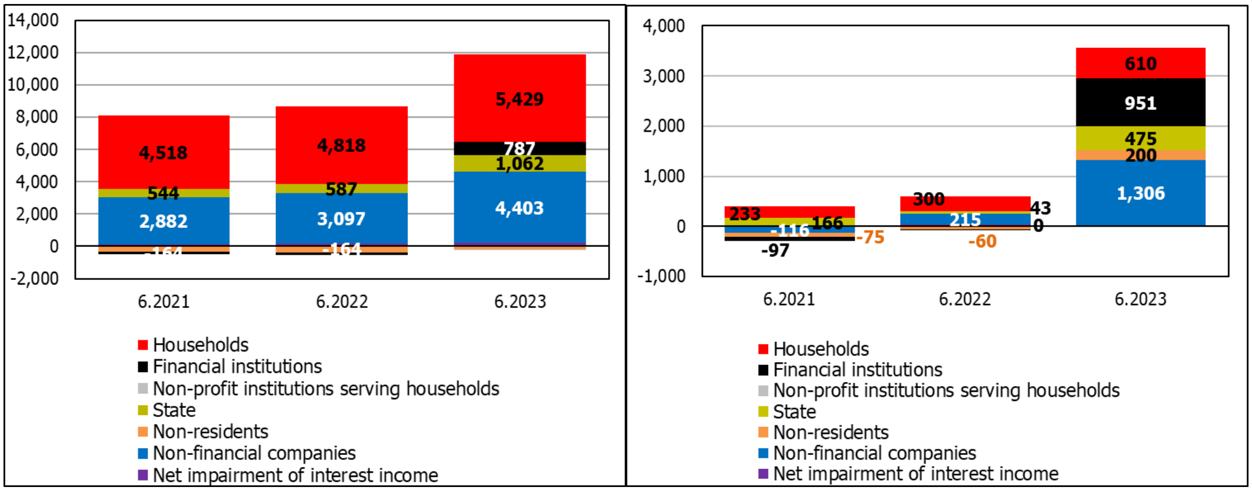
Source: National Bank, based on the data submitted by banks.

In conditions of interest rate growth and increase in the average interest-bearing assets[67] **to interest-bearing liabilities** [68] **ratio, the higher net interest income is based on the higher absolute increase in interest income (by Denar 4,327 million or by 45.1%), compared to the increase in interest expenses (by denar 773 million or by 53.5%).** Therefore, net interest income recorded growth from almost all sectors, amid higher increase in interest income compared to the increase in interest expenses.

[67] Compared to the first half of 2022, the interest-bearing assets increased by Denar 68,397 million or by 12.4% (as of 30.6.2022, this growth amounted to Denar 43,649 million or 8.6%).

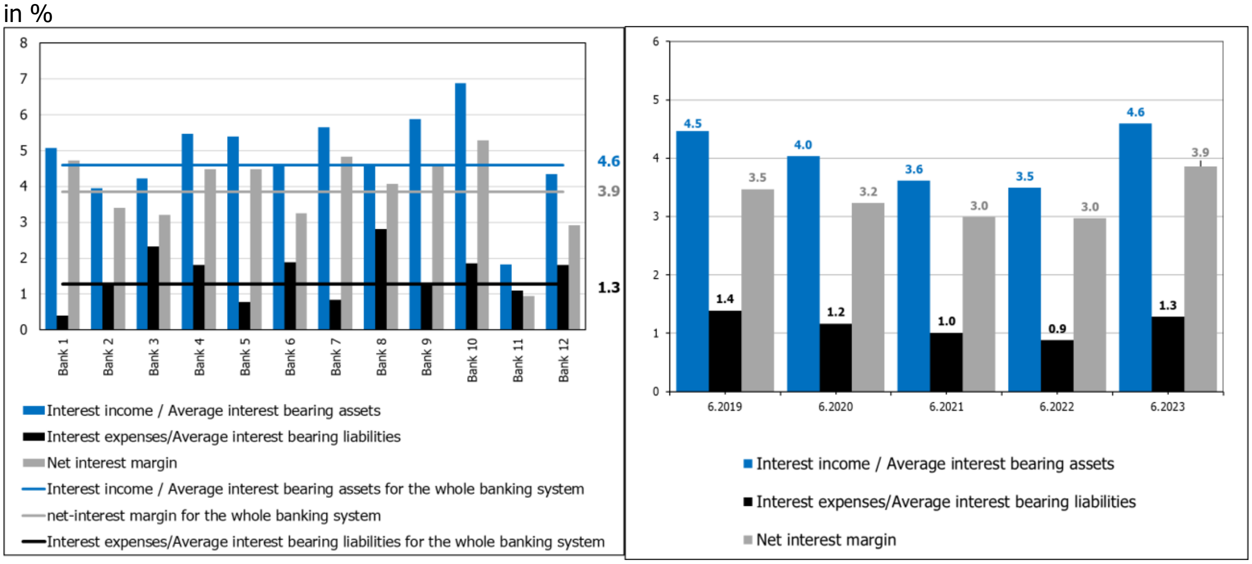
[68] Compared to the first half of 2022, the interest-bearing liabilities increased by Denar 24,016 million or by 7.3% (as of 30.6.2022, this growth amounted to Denar 9,465 million or 3%).

Chart 67 Net interest income of the banking system by sector, structure (left) and contribution to profit (right)
in millions of denars



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

Chart 68 Net interest margin as of 31.12.2022, by bank (left)* and of the banking system (right)
in %

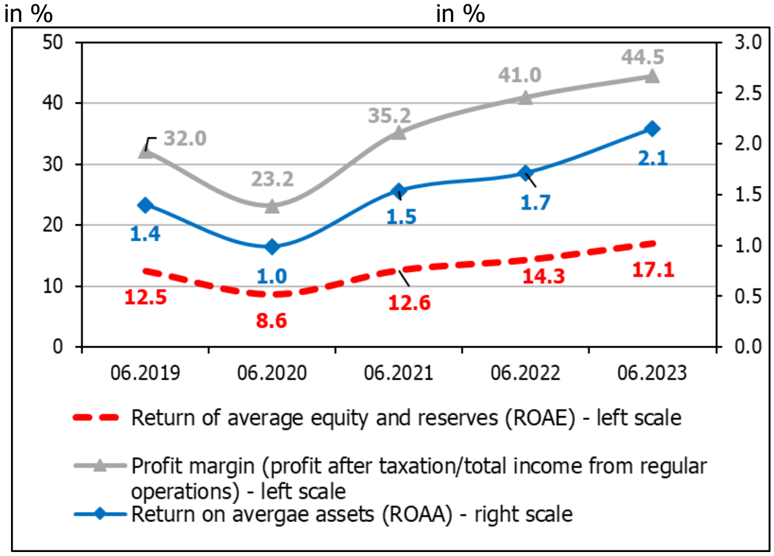


Source: National Bank, based on the data submitted by banks.
* Indicators of the banking system are shown in lines.

Following the decline in net interest margin in the first half of 2020 and 2021 and its stagnation in the same period of 2022, in the first six months of 2023 it grew by 0.9 percentage points, reaching 3.9%. The growth is due to the more pronounced growth of net interest income (43.6%) compared to the average interest assets (10.4%).

The accelerated profit growth in the first half of 2023 had a positive impact on the main profitability ratios[69] of the banking system. Compared to the same period last year, the rate of return on average equity and the rate of return on average assets increased by 2.8 and 0.4 percentage points, respectively, while the profit margin increased by 3.5 percentage points.

Chart 69 Rates of return on average assets and on average equity and profit margin



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

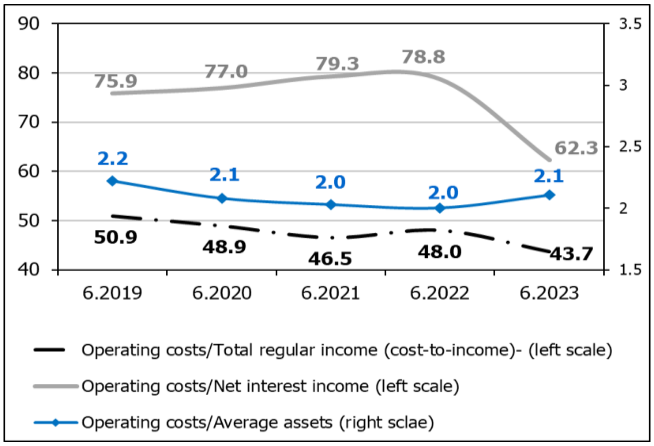
Most of the operating efficiency ratios have improved in the first half of 2023. The operating costs to net interest income ratio, as well as the operating costs to total regular income ratio significantly improved, by 16.5 and 4.3 percentage points, respectively, due to the faster growth in net interest income (43.6%) and total regular income (24.8) [70], compared to the growth of operating costs (13.5%)[71]. Only the operating costs to average assets ratio slightly increased by 0.1 percentage point.

[69] Profitability and efficiency ratios of the banking system and banking groups are presented in the Annexes to this Report.

[70] The increase in total regular income is determined by the increase in net interest income (by denar 3,554 million or by 43.6%) and net income from commissions and fees (by Denar 191 million or by 6.4%).

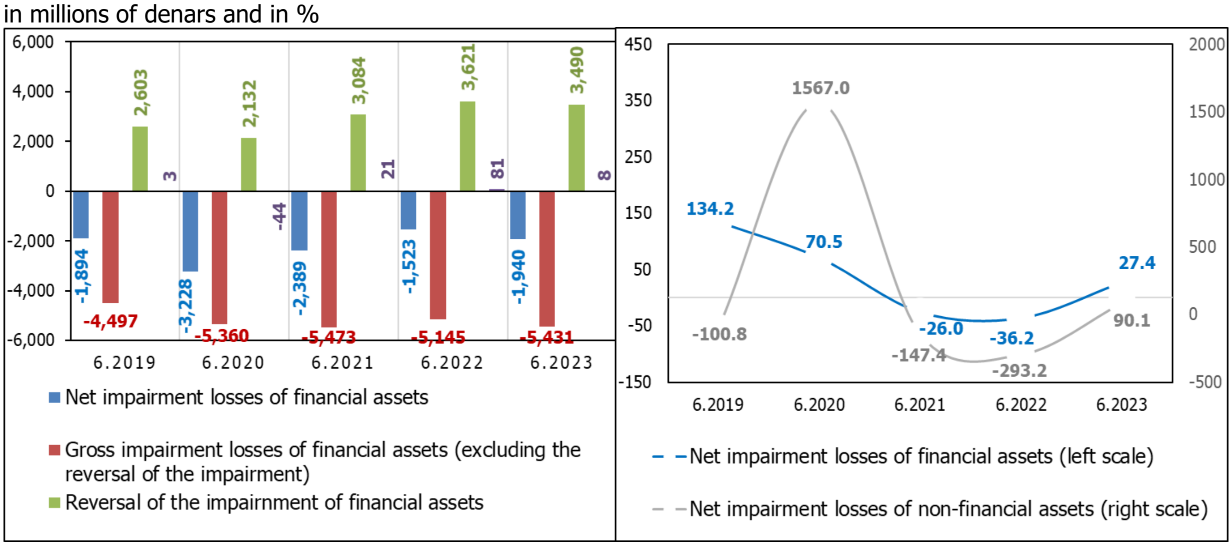
[71] In the first half of 2023, the operating costs increased by Denar 868 million (or by 13.5%), primarily employee expenses (by Denar 422 million or by 15.3%) and general and administrative costs (by Denar 324 million or 13.7%).

Chart 70 Operational efficiency ratios
in %



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

Chart 71 Impairment cost for financial and non-financial assets, stock (left) and annual flow (right)
in millions of denars and in %

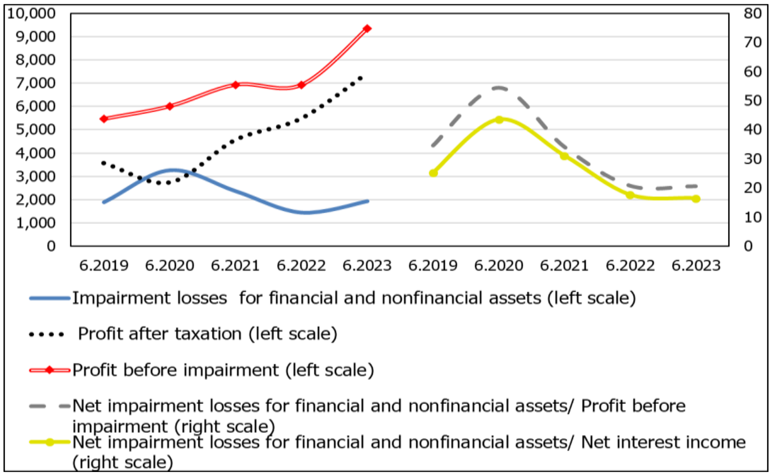


Source: National Bank, based on the data submitted by banks.

In the first half of 2023, impairment costs for financial and non-financial assets (net) increased by Denar 490 million or 34%. The increase in these costs is primarily due to impairment costs of financial assets (which is a net increase of Denar 417 million or 27.4%). This increase was mostly due to the increase in the gross impairment costs of loans and other placements (by Denar 197 million or by 4.4%) on the one hand, and the lower release of impairment of these assets (by Denar 144 million or by 4.6%) on the other. **The amount of net impairment of non-financial assets is insignificant**.

Chart 72 Net impairment costs –to- gain, and –to- net interest income ratios

in millions of denars in %



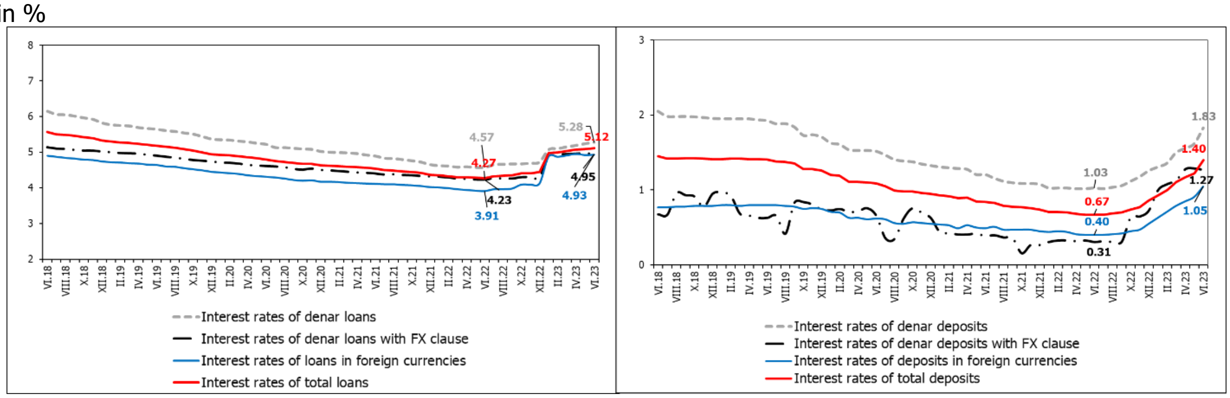
Source: National Bank, based on the data submitted by banks.

2.2. Interest rates and interest rate spread

At the end of the first half of 2023, total lending and deposit interest rates amounted to 5.12% and 1.4%, respectively, which is a growth of 0.85 and 0.73 percentage points compared to the end of the first half of the last year when they amounted to 4.27% and 0.67%, respectively. The interest rate spread widened due to the faster growth in lending interest rates, relative to the growth in deposit interest rates. The interest rate spread between total interest rate on loans and the total interest rate on deposits in June 2023 equaled 3.72 percentage points, compared to 3.60 percentage points at the end of the first half of 2022.

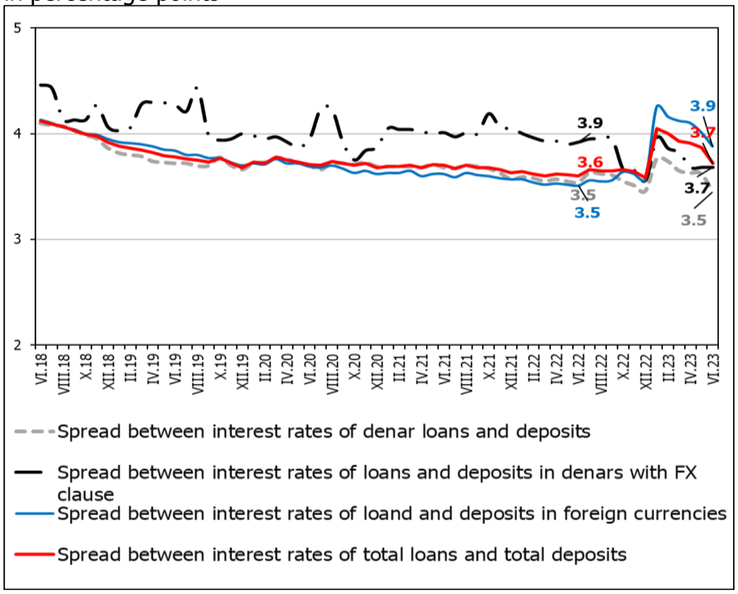
Chart 73 Lending (left) and deposit interest rates (right)

in %



Source: National Bank

Chart 74 Interest spread
in percentage points



Source: National Bank.

The interest rates on banks' newly agreed activities (credit and deposit) registered upward movements as well. Thus, the interest rate on newly granted loans (denar and foreign currency) in June 2023 amounted to 5.26%, compared to 3.99% at the end of the first half of the previous year, which is an increase of 1.27 percentage points. An increase of 1.71 percentage points was also recorded in total interest rate on newly accepted deposits (denar and foreign currency), which in June 2023 amounted to 2.69% (0.98% in June 2022). Hence, the faster growth of interest rate on newly accepted deposits compared to newly granted loans narrowed the interest rate spread by 0.44 percentage points, thus at the end of June it amounted to 2.57% (3.01% in June 2022).