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 FIRST QUARTER OF 2023

June 2023

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I. Summary

The environment in which the banking system operates is still uncertain, due to global factors, followed by still high yet reduced inflation rates and tightening of financial conditions. The end of the first quarter of 2023 witnessed temporary turbulences on the financial markets, driven by the developments in US and Swiss banking systems. These events had limited effects given the prompt response from the policy makers, while the global financial system remained stable. The Macedonian banking system was not affected by these developments, given the use of the traditional business model by banks, low direct exposures to and borrowings from non-residents and absence of greater integration in global financial flows.

As of the end of the first quarter of this year, the growth of deposits of non-financial entities accelerated annually, while the growth of loans slowed down. In conditions of further confidence in the banking system, deposits of non-financial entities register an accelerated annual growth to 7.8%, (5.4% as of 31.12.2022) of both household and non-financial companies deposits. Analyzing the currency structure, the accelerated growth is due to denar deposits, amid slowdown in the annual growth of foreign currency deposits, while the maturity structure of deposits registered accelerated annual growth rates of deposits by all maturities (demand, and short-term and long-term time deposits). The favorable shifts in long-term deposits, which after a long period of decrease registered an increase in the first quarter annually, are particularly evident. In conditions of certain tightening of financial conditions and reduced demand for loans, the banking system lending activity noted a slower annual growth to 6.4% (10.1% as of 31.12.2022). Most categories of banking system activities declined or decelerated on a quarterly basis, **primarily due to seasonal effects.** Thus, both lending and deposit activity registered an identical quarterly decrease (by 0.8%), mainly due to reduced corporate loans and deposits.

The National Bank continued adjusting the monetary policy in the first quarter of 2023 and introduced macroprudential measures. The policy rate increased from 4.75% in December 2022, to 5.50% in March 2023 (5.75% as of May 2023), while in early 2023, changes to the reserve requirement were made, mainly aimed at encouraging savings in domestic currency. In April 2023, macroprudential measures were taken to introduce maximal values of DSTI ratio (55% when approving new or increasing existing credit exposure in denars and 50% when approving new or increasing the existing credit exposure with currency component) and LTV ratio (85%, when approving new or increasing existing exposure secured with residential real estate). These macroprudential measures, introduced on 1.7.2023, prevent accumulation of systemic risks in the household segment and real estate market.

The solvency of the banking system improved. The capital adequacy ratio increased by 0.3 percentage points quarterly, to 18.0%, which is a record high in the last sixteen years. The improved solvency mostly results from reinvesting of last year's profits. Over 93% of the own funds account for Common Equity Tier 1 capital, which is the highest-quality segment of the banks' regulatory capital. Analyzed by purpose, almost one third of the banking system own funds account for capital buffers or are "free" above the required minimum level, which banks may use to deal with different challenges in the downward phases of the economic cycle and in crisis conditions. The stress testing shows that the banking system is resilient to the simulated shocks.

The liquidity indicators remained satisfactory. Despite the quarterly decrease in liquid assets, the liquidity monitoring and assessment ratios remained satisfactory. Thus, liquid assets account for 29.1% of total banks' assets (30.0% as of 31.12.2022), while the coverage of short-term liabilities and household deposits with liquid assets amounts to 47.3% and 57.9%, respectively (as of 31.12.2022, these indicators equaled 47.7% and 61.1%, respectively). The liquidity coverage ratio of the banking system equals 269.5%, which is significantly higher than the regulatory minimum (100%) and confirms the sufficient amount 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 quality was maintained. Total non-performing loans continued to decrease (-2.1%), thus their share in total loans decreased by 0.1 percentage points (-2.1%), to a new historically lowest level of 2.8%. The rate of non-performing household loans remained at the level of the previous quarter at 1.9%, while the share of non-performing to total corporate loans decreased by 0.1 percentage points, to 3.8%.

In the first quarter of this year, the presence of currency component (FX and incorporating FX in banks' products) in banks' balance sheets decreased. The banking system exposure to currency risk is more than three times lower than the requirement of 30% of own funds i.e. 8.2% as of 31.3.2023.

The banks' exposure to interest rate risk in the banking book is within the prescribed limit and as of 31.3.2023 equals 10.5% of own funds, which is a quarterly decline of 0.4 percentage points. The rising trend of interest rates, which began last year and continued in 2023, highlights the importance of interest rate risk, especially the interest rate risk to banks which arises from their clients' exposure to interest rate risks. Therefore, as before, banks need to continue with greater vigilance and strengthening of risk management practices.

In the first quarter of 2023, the profit of the domestic banking system increased by 44.3%, 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 costs. The ratios of return on average assets and average equity and reserves equal 2.2% and 17.6%, respectively, which is a better performance compared to the same period last year (1.6% and 14.0%, respectively). The operational efficiency indicators generally improved, despite the increase in the operating costs of 8.9%, compared to the preceding year.

The macroeconomic image in the first quarter of 2023 has not changed significantly compared to the previous period. The risks, mainly related to the external environment, remain and adequately affect the environment in which the domestic banking system operates and consequently its activities and risk profile in the upcoming period. 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, when needed.

II. Structure of the banking system

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

As of 31.3.2023, the number of banks in the Republic of North Macedonia remained unchanged compared to the previous quarter and equaled thirteen. Nine banks are in predominant foreign ownership, five of which foreign bank subsidiaries.

Table 1 Structure of major balance sheet positions by banks' majority ownership (as of 31.3.2023)
in millions of denars and in %

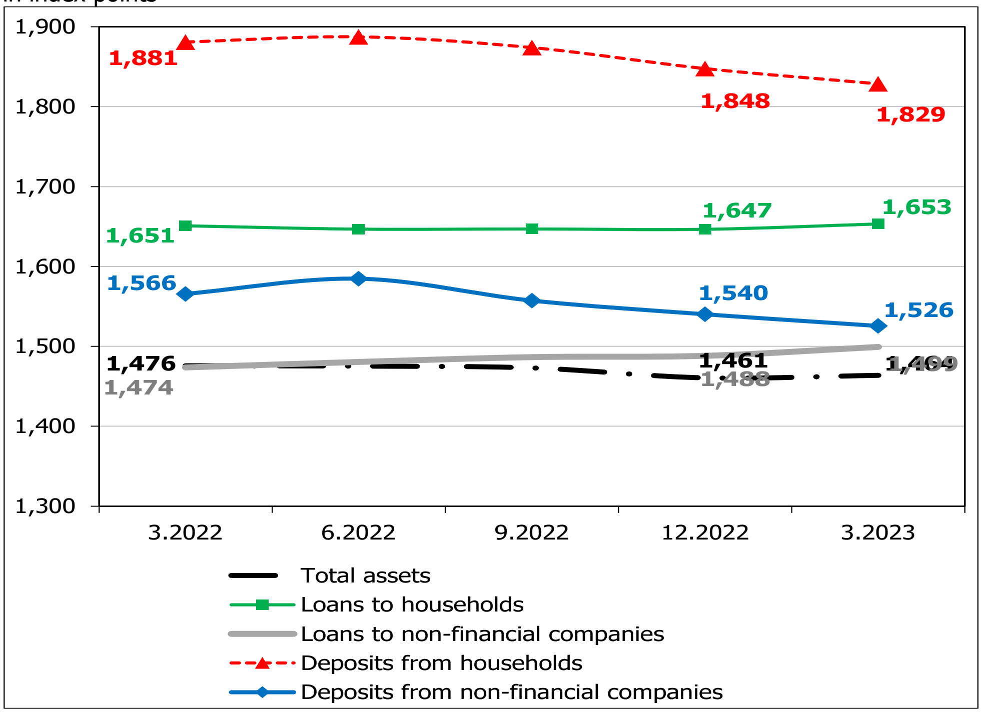
Type of ownership	Number of banks	Capital and reserves		Assets		Loans to non-financial sector		Deposits from non-financial sector		Total revenues*		Financial result*	
		Amount	In %	Amount	In %	Amount	In %	Amount	In %	Amount	In %	Amount	In %
Banks in dominant ownership of foreign shareholders	**9**	**67,188**	**76.4%**	**486,502**	**72.0%**	**343,057**	**81.8%**	**342,612**	**69.9%**	**22,768**	**76.1%**	**8,052**	**74.3%**
- subsidiaries of foreign banks	*5*	*58,903*	*66.9%*	*406,099*	*60.1%*	*288,870*	*68.9%*	*288,742*	*58.9%*	*19,292*	*64.4%*	*7,165*	*66.1%*
- Austria	1	9,621	10.9%	81,770	12.1%	60,686	14.5%	48,711	9.9%	3,272	10.9%	1,100	10.1%
- Bulgaria	1	1,269	1.4%	10,960	1.6%	7,522	1.8%	8,434	1.7%	430	1.4%	45	0.4%
- Greece	1	19,821	22.5%	121,298	17.9%	88,665	21.2%	91,338	18.6%	6,660	22.2%	2,482	22.9%
- Slovenia	1	15,602	17.7%	110,820	16.4%	74,694	17.8%	86,277	17.6%	5,478	18.3%	2,599	24.0%
- Turkey	1	12,590	14.3%	81,251	12.0%	57,303	13.7%	53,981	11.0%	3,452	11.5%	939	8.7%
- other banks in dominant foreign ownership	*4*	*8,285*	*9.4%*	*80,404*	*11.9%*	*54,186*	*12.9%*	*53,870*	*11.0%*	*3,476*	*11.6%*	*888*	*8.2%*
- Bulgaria	2	3,683	4.2%	29,263	4.3%	19,461	4.6%	20,042	4.1%	1,697	5.7%	449	4.1%
- Germany	1	3,774	4.3%	42,920	6.4%	29,279	7.0%	27,507	5.6%	1,344	4.5%	283	2.6%
- Switzerland	1	828	0.9%	8,221	1.2%	5,447	1.3%	6,321	1.3%	435	1.5%	156	1.4%
Banks in dominant ownership of domestic shareholders	**4**	**20,808**	**23.6%**	**189,388**	**28.0%**	**76,072**	**18.2%**	**147,526**	**30.1%**	**7,168**	**23.9%**	**2,785**	**25.7%**
- private ownership	*3*	*17,268*	*19.6%*	*173,648*	*25.7%*	*75,915*	*18.1%*	*147,526*	*30.1%*	*6,978*	*23.3%*	*2,700*	*24.9%*
- state ownership	*1*	*3,540*	*4.0%*	*15,740*	*2.3%*	*158*	*0.0%*	*0*	*0.0%*	*190*	*0.6%*	*85*	*0.8%*
Total:	**13**	**87,996**	**100.0%**	**675,891**	**100.0%**	**419,129**	**100.0%**	**490,137**	**100.0%**	**29,937**	**100.0%**	**10,837**	**100.0%**

Source: National Bank, based on the data submitted by banks.
*Total income and financial result are calculated for the last twelve months (31.3.2022-31.3.2023).

Banks with dominant foreign ownership prevail in the structure of the major balance sheet positions of the banking system in the first quarter of 2023. The most significant change was registered in the financial result, with a reduced share of these bank by 2.1 percentage points. The change in assets is also noticeable, where the share of banks in foreign ownership reduced by 0.6 percentage points. Banks with foreign ownership still have the largest share in total loans to non-financial sector, which amounts to 81.8% with a decline of 0.2 percentage points.

Chart 1 Herfindahl index

in index points



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

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

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

in %

Position	31.03.2023		31.12.2022	
	CR3	**CR5**	**CR3**	**CR5**
Total assets	57.0	81.1	56.5	81.5
Loans to households	61.6	83.6	61.1	83.5
Loans to non-financial companies	52.2	81.0	51.6	80.4
Deposits from households	69.4	85.8	70.1	86.1
Deposits from non-financial companies	54.1	81.8	54.4	83.2
Financial result*	71.5	90.3	72.6	91.0
Total revenues*	60.2	82.7	60.4	82.6

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

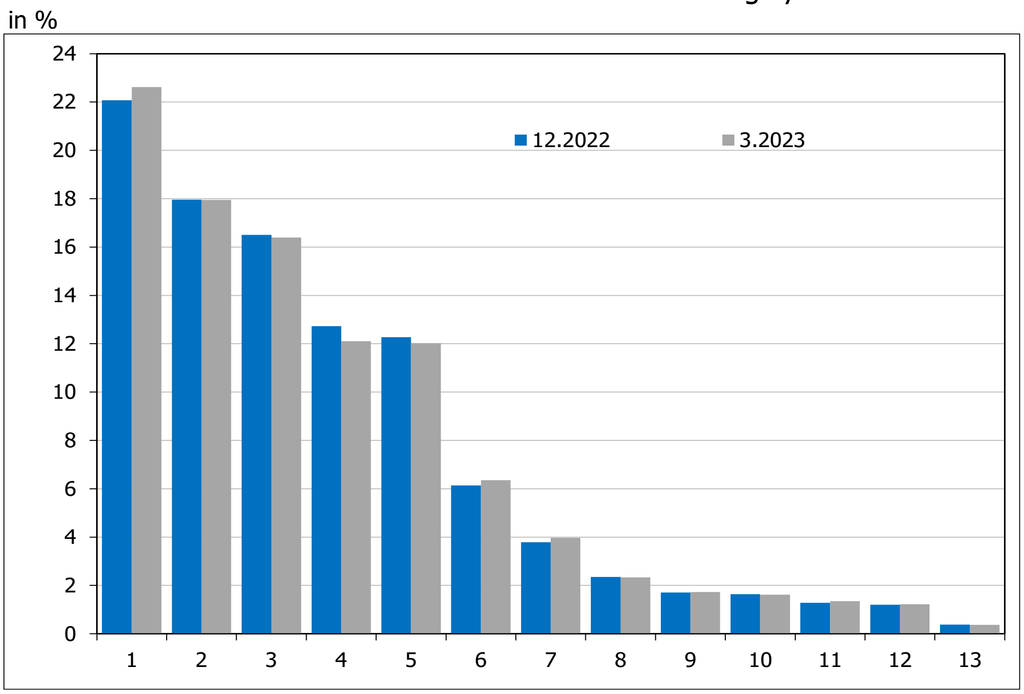
*Total income and financial result are calculated for the last twelve months (31.3.2022-31.3.2023).

[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.), where 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 indicators of the three and five banks with largest share in individual banks' balance sheet positions mainly registered slight changes on a quarterly basis. A more pronounced change was noted in the share of banks in the financial result, with a moderate decrease in the share of the three and five banks with the largest share, by 1.1 and 0.7 percentage points, respectively, and a significant decrease in the share of the five banks with the largest share in deposits of non-financial companies by 1.4 percentage points.

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



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

The difference in bank size by their assets is still high, while the spread between the bank with highest market share (22.6%) and the bank with the lowest market share (0.4%) widened by 0.6 percentage points, compared to the previous quarter. The five large banks remain the only banks with a double-digit market share, which cumulatively amounts to 81.1%, with a decrease of 0.4 percentage points compared to the previous quarter.

III. Bank risks

1. Credit risk

In the first quarter of 2023, the credit portfolio quality was preserved, and slightly improved. Thus, the non-performing loans rate improved (by 0.1 percentage point) and amounted to 2.8%, which is a record low. The improvement of the non-performing loans rate mostly results from the corporate sector, where the share of non-performing loans reduced to 3.8%. The rate of non-performing household loans remained at the level of the previous quarter and amounted to 1.9%. The solvency and stability risks of the banking system, amid assumption for complete default to non-performing loans, are limited due to relatively high coverage of non-performing loans with impairment, which enables the non-provisioned portion of non-performing loans to occupy a minimal portion of banking system own funds. The results of stress testing confirm the resilience of the banking sector to the simulated credit risk shocks.

Other aspects of the credit risk analysis show weak signals of downward shifts in the quality of credit portfolio, but they are subject to closer and continuous monitoring and for now, do not represent risk to the future quality of credit portfolio. The prolonged loans recorded a growth, but they are currently no source of risk to the domestic banking system, due to their relatively modest share in total loans. Restructured loans, which, if increasing or sizable, tend to indicate worsening of a credit portfolio quality, decreased on a quarterly basis. However, amid still uncertain environment due to the war in Ukraine and its effect on the supply chains and prices, tightening of financial condition and volatility of markets, the banks should be cautious in credit risk management, especially in creating expectations for credit losses for these loans, and the overall credit portfolio.

1.1 Materialization of credit risk in banks' balance sheets

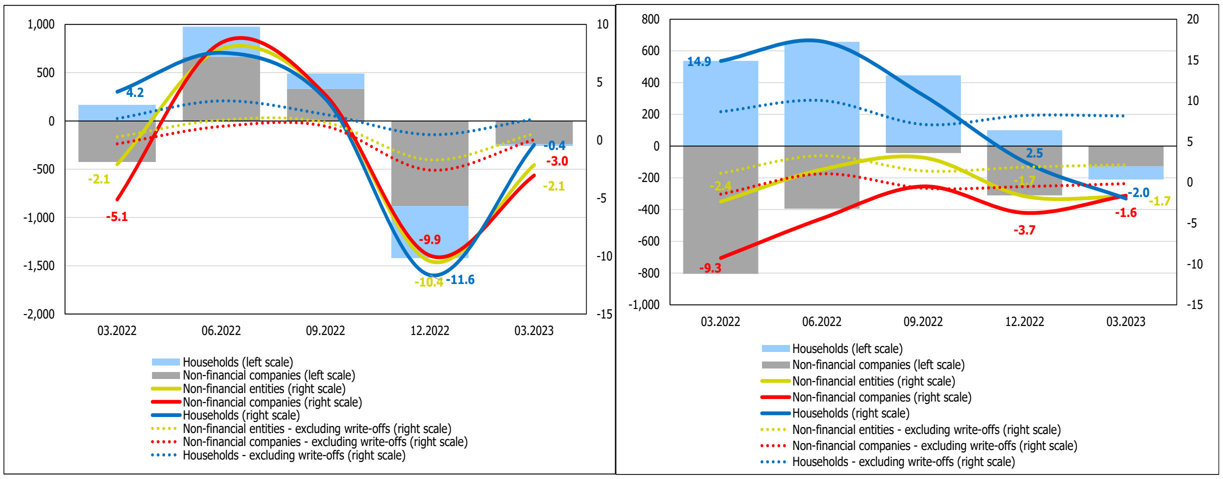
In the first quarter of 2023, the non-performing loans to non-financial sector decreased, but at a slower pace than in the previous quarter. The decrease amounted to 2.1% or Denar 259 million, mostly due to mandatory write-offs[3] of claims, with a certain impact of the collection of non-performing loans as well. The decrease in non-performing loans in the first quarter of 2023 entirely stems from non-financial companies in retail and wholesale trade[4].

[3] Excluding the effect of net write-offs, non-performing loans to non-financial sector registered a minimal quarterly growth of 0.6%

[4]Non-performing corporate loans prevail in the total non-performing portfolio with a share of 64.9%.

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

in millions of denars in %



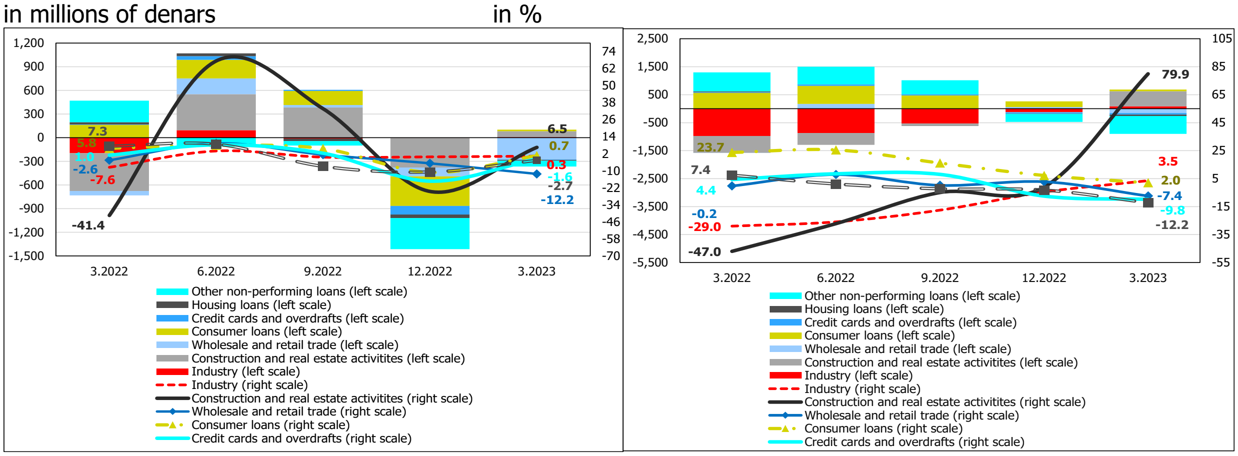
Source: National Bank, based on the data submitted by banks.

Note: The dotted lines show a growth of non-performing loans by excluding the effect of all mandatory write-offs made in the period 1.1.2016 - 30.6.2021. Starting from December 2019, the data also contains the compulsorily collected written-off loans.

Non-performing credit portfolio of the corporate sector in the first quarter of 2023 decreased by 3.0% or by Denar 242 million[5], yet slower compared to the previous quarter and the first quarter of the previous year. The decrease in non-performing loans was also noted in most of the economic activities, and was the most significant in wholesale and retail trade and production of metals, machinery, tools and equipment. In contrast, the increase in non-performing loans was registered in food industry, construction and catering. The high annual growth rate of non-performing loans in construction is partly a result of the base effect, i.e. the decline in the beginning of the first quarter of 2022 due to collection of claims, and partly due to unfavorable effects of the energy crisis and rising prices of construction materials and other expenses.

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

in millions of denars in %



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

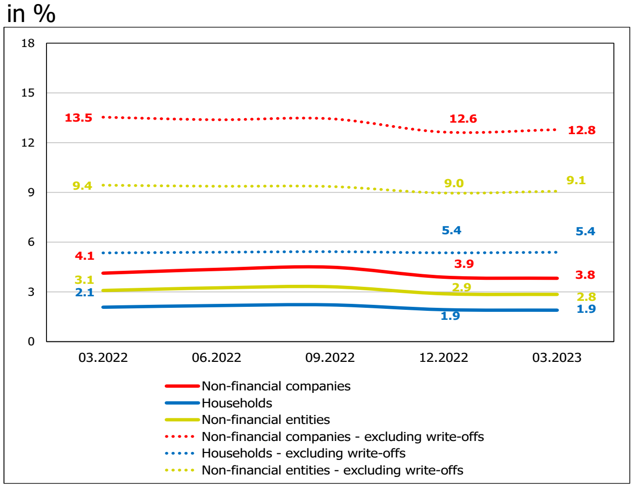
[5] By isolating the effect of mandatory net write-offs, non-performing corporate loans increase by a minimum 0.1%.

Non-performing household loans recorded a quarterly decline of 0.4% or Denar 16 million[6] which is slower compared to the previous quarter (11.6% or by Denar 538 million), while in the first quarter of last year these loans increased. The decelerated decline in non-performing household loans is a result of the non-performing consumer loans, which increased in this quarter (by 0.7% or by Denar 20 million), as opposed to the decline in the previous quarter (by 11.2% or by Denar 375 million), as well as of the increase in non-performing claims based on overdrafts (by 3.8%, i.e. Dear 8 million), against the fall of 10.9% or Denar 26 million in the previous quarter. On the other hand, non-performing loans for purchasing residential and commercial properties decreased quarterly by 3.9% (Denar 15 million).

Amid reduced credit support by banks[7] in the first three months of this year (0.8% quarterly) and decrease in the non-performing loans, the non-performing loans rate decreased by 0.1 and 0.2 percentage points compared to 31.12.2022 and 31.3.2022, respectively and amounted to 2.8%, which is a record low of this indicator[8]. An improvement was also recorded in the share of loans classified in regular risk categories B and C - regular (as approximation of the so called Phase 2 loans with significantly increased credit risk according to IFRS 9) to total loans to non-financial sector (mostly due to the decline in loans classified in risk category B by 3.1%, which arises from collections in wholesale and retail trade activities).

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

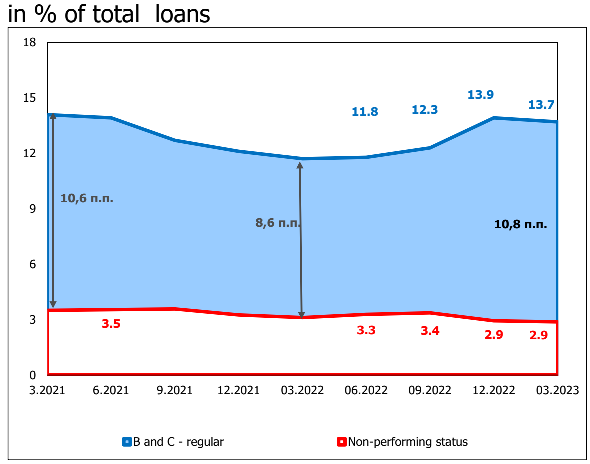
in %



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

in % of total loans



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

[6]If we exclude the effect of mandatory net write-offs, the growth of non-performing household loans increases and amounts to 1.8%.

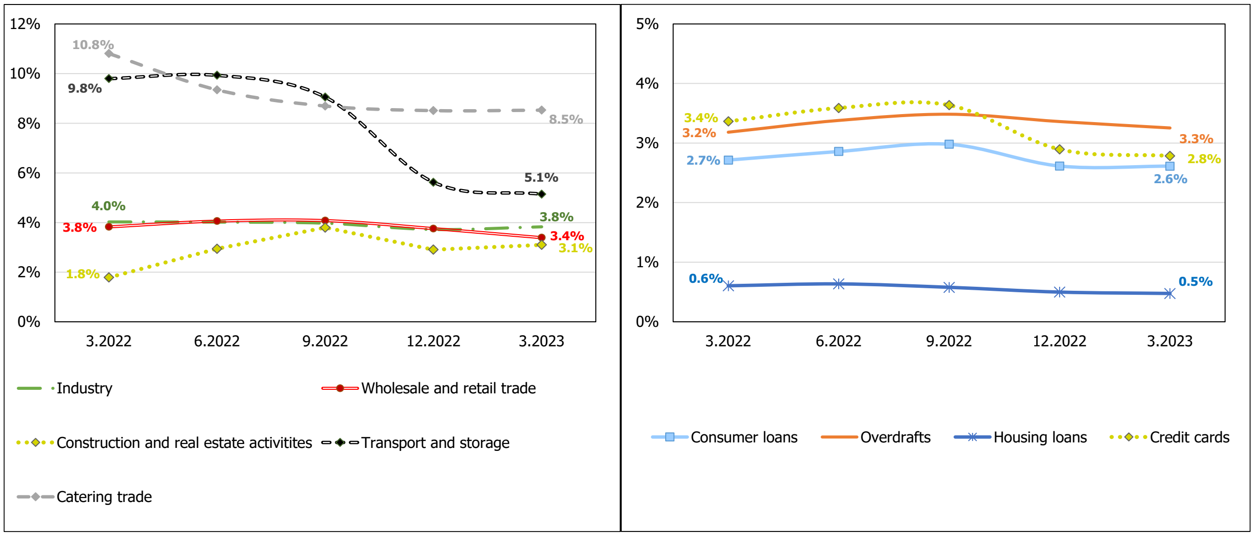
[7]The annual growth of credit activity in the first quarter of 2023 decelerated and is expected to continue until the end of the year amid uncertainty and tightened financial conditions. Certain impact is also expected from the adopted systemic and macroprudential measures to strengthen the banking sector resilience, in line with the introduction of the obligation to allocate countercyclical capital buffer of banks which is applicable as of August 2023, as well as setting thresholds in terms of the size and household indebtedness, which aim at reducing systemic risks in the segment of lending to households and real estate market.

[8]If we exclude the effect of the mandatory write-offs, the share of non-performing to total loans increased to 9.1%, which is around the minimum rates in the past decade, i.e. remains below its ten-year average of 10.8%.

*Regular loans classified in B and C risk categories and non-performing loans, are approximation of the so called group 2 and 3 according to IFRS 9, respectively. The slight differences in the rates of NPL relative to the Chart on the left, are due to the two different data sources.

The share of non-performing loans to total loans of legal entities also decreased by 0.1 percentage point and reduced to 3.8%[9]. The decrease in the non-performing loans rate was registered in all important predominant activities of non-financial companies, with the most significant improvement in the non-performing loans rate in service activities in the field of arts, entertainment and recreation and other service activities, which were previously most affected by the pandemic. In contrast, certain deterioration (by 0.9 percentage points) was also evident in the food industry, amid significant increase in non-performing loans (by 10.4%). Also, this rate increased in the construction sector and information and communication services (by 0.3 and 0.2 percentage points, respectively).

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.

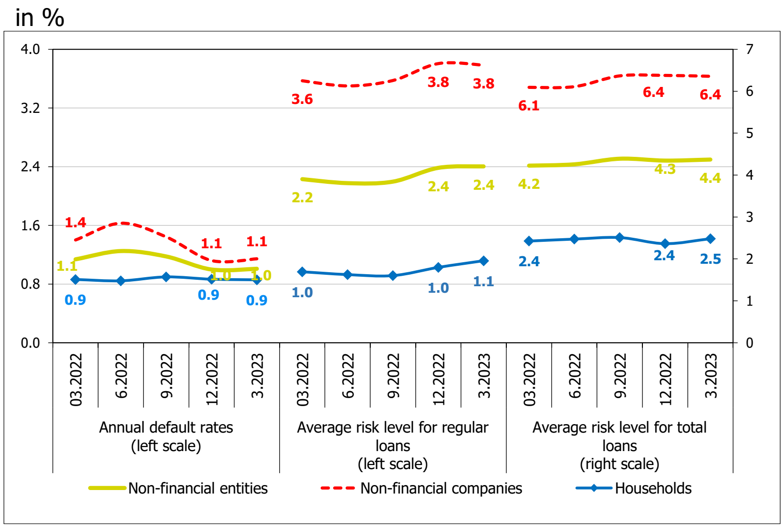
At the end of the first quarter of 2023, the rate pf non-performing loans in the household credit portfolio remained unchanged at 1.9%[10]. Analyzing purpose, this quarter registered no significant changes in the quality. The rates of non-performing loans in the two largest categories of household loans, i.e. consumer and housing loans, remained at the stable level during the quarter of 2.6% and 0.5%, respectively.

The annual default rate of regular loans to non-financial sector remained unchanged in the first quarter of 2023, compared to the previous quarter. The average provisioning (average risk level) of regular and total loans to non-financial sector, as well as of corporate loans was also unchanged. However, these levels slightly increased in regular and total

[9]If we exclude the effect of the mandatory net write-offs, the share of non-performing to total corporate loans increased to 12.8%, which is slightly above the lowest rate in the past decade, yet below its ten-year average.
[10]If we exclude the effect of the mandatory net write-offs, the rate of non-performing household loans equals 5.4%, at the level of its 10-year moving average.

household loans, which indicates that banks perceive certain increase in the risks of the household's credit portfolio, which are still assessed as significantly lower compared to the placements to enterprises. The expected credit losses for regular loans to non-financial corporations equal 3.8%, which is significantly higher compared to households (1.1%) at the end of the first quarter of 2023, amid similar default rates for both sectors. Given the uncertainties both in global and domestic economy, banks need to monitor the quality of credit portfolio closely, and to appropriately and timely allocate provisions to cover expected credit losses.

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

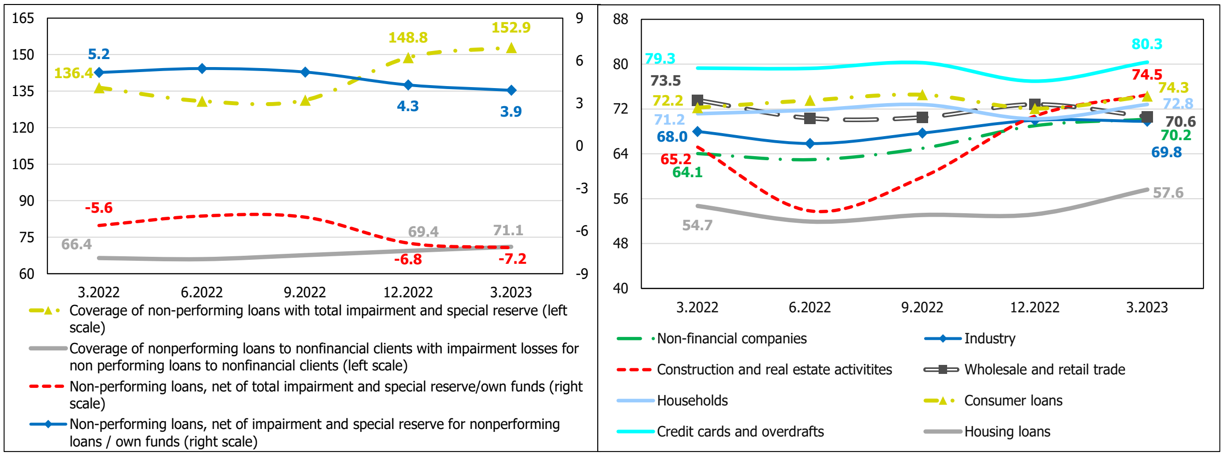


Source: National Bank's Credit Registry, based on data submitted by banks.

The negative consequences of a possible complete default on non-performing loans, i.e. the volume of unexpected credit losses on this basis have a limited impact on the domestic banking system solvency. This is a result of the high coverage of non-performing loans with impairment for these loans, which at the end of the first quarter of 2023 registered an increase of 1.7 percentage points compared to the previous quarter and amounted to 71.1%. At the same time, the non-provisioned amount of non-performing loans accounts for only 3.9% of the banking system own funds and compared to the previous quarter registered an improvement of 0.4 percentage points. This means that amid assumption of complete default of current non-performing loans, the banking system solvency would not be jeopardized.

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

in %

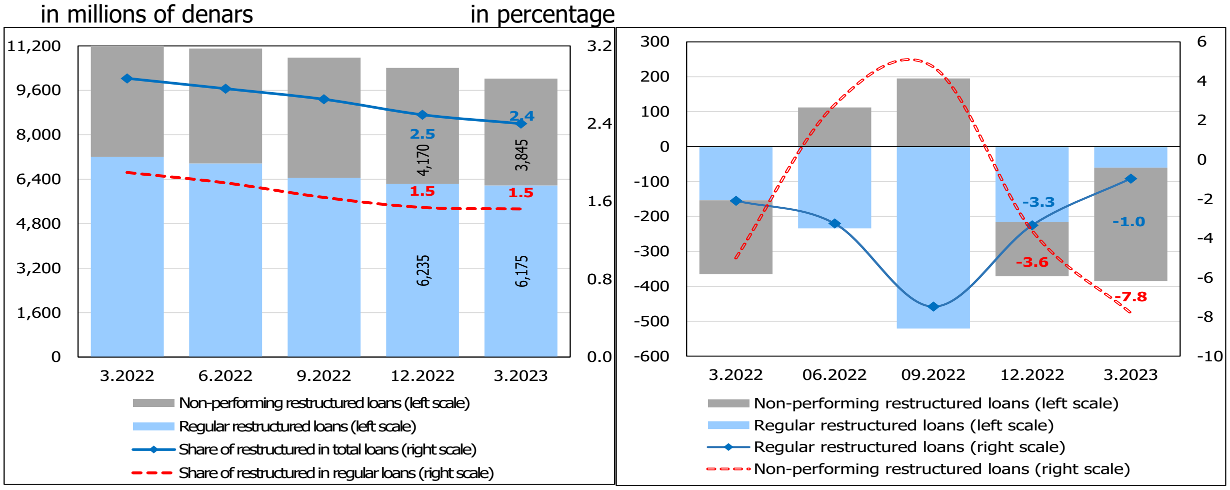


Source: National Bank's Credit Registry, based on data submitted by banks.

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

in millions of denars

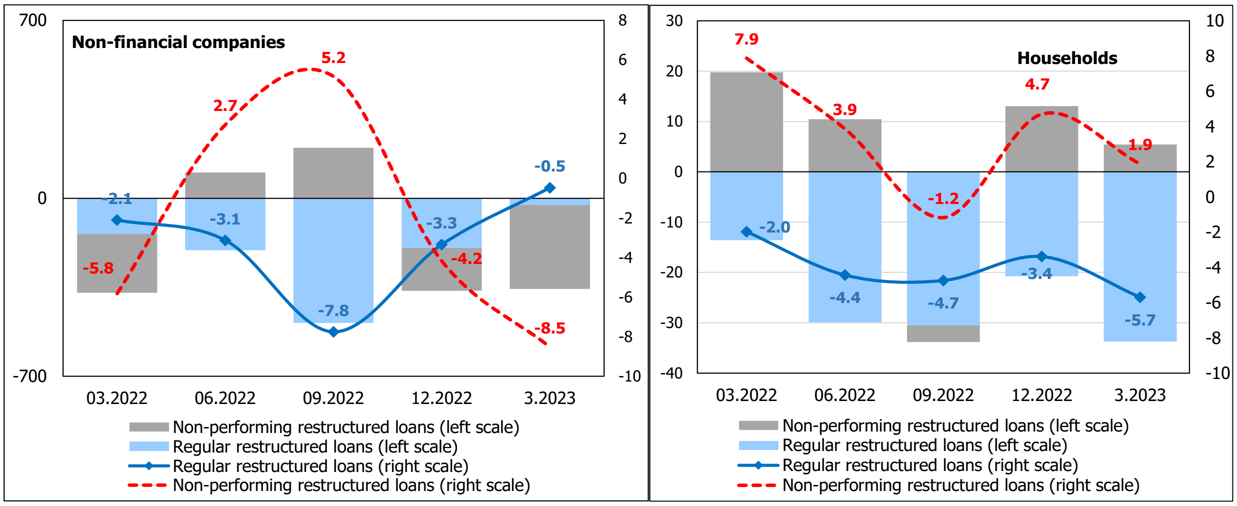
in percentage



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

Restructured loans by nature, are loans that need to be followed more closely, because the restructuring is performed on claims on clients whose financial condition deteriorated (which makes these loans a possible source of new non-performing loans if the restructuring has not fulfilled the expected goals to adjust the credit burden to the financial condition of the client). **The restructured loans have an insignificant share in total loans of 2.4%, with a continuous decrease,** which was registered in the first quarter of 2023 as well. The higher risk which marks the restructured loans is also perceived through higher average provision of regular restructured loans which amounts to 20.6% and is significantly higher compared to the coverage with impairment of total regular loans of 2.4%. On the other hand, the coverage of non-performing restructured loans with allocated provisions (of 68.8%) is similar to the coverage of total non-performing loans (of 71.1%).

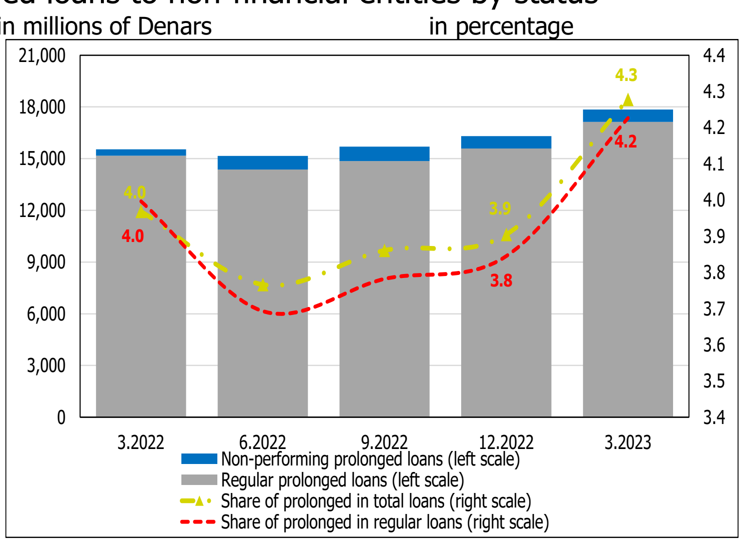
Chart 11 Annual growth of restructured loans, by sector



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

Downward trend was also registered in restructured loans to certain non-financial sectors (decrease of 0.5% or Denar 26 million in corporate and 5.7% or Denar 34 million in household loans). The restructuring is mainly registered in non-financial corporations, which account for almost 91% of the total restructured loan portfolio[11].

Chart 12 Prolonged loans to non-financial entities by status



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

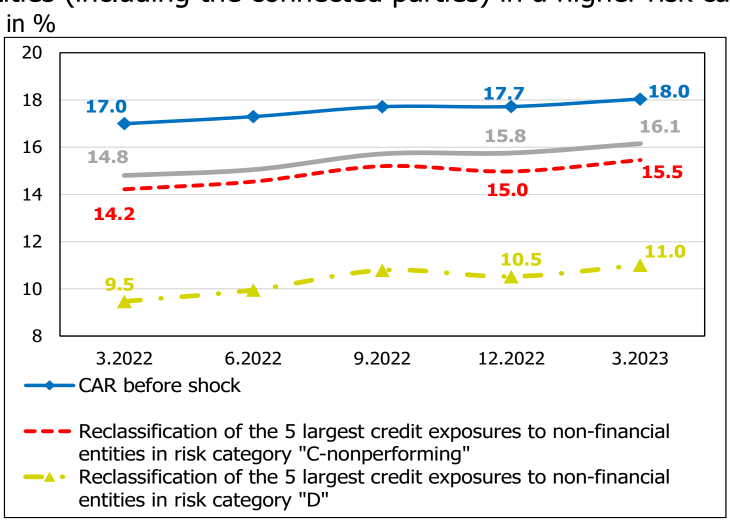
[11]The share of restructured loans in credit portfolios of non-financial legal entities and households was 4.5% and 0.4%, respectively.

The first quarter of 2023 registered an accelerated growth of regular prolonged loans[12]. Thus, total prolonged loans increased by 9.5%, that is Denar 1,551 million quarterly, which is a faster growth compared to the end of 2022 (3.9%, i.e. Denar 606 million). Within them, regular prolonged loans prevail (share of 96%), simultaneously contributing to the quarterly growth of total prolonged loans. Analyzing the sectors, the prolonged maturity was mainly registered in non-financial corporations (share of 92%). The prolonging may be a possible source of risk, especially if used as a way to ease the debt burden of non-financial companies which have no sustainable operating cash flows or have difficulties in maintaining their competitive ability on the market. Currently, the materialization of this risk would have limited effects, due to the low share of prolonged loans in the total credit portfolio of banks (4.3% at the end of the first quarter of 2023). However, the growth tendency of these loans requires greater vigilance in credit risk management of these loans. This is by far more relevant for loans to non-financial corporations, where the share of prolonged loans to total loans is 8.1%[13], compared to households, where the share of these loans is insignificant (0.7%)[14].

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 go 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% to 12.7%, which is an unchanged result compared to the previous quarter.

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



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

[12]According to the regulation, maturity is prolonged if no financial difficulties have been identified in clients.
[13] In non-financial corporations, the average risk of prolonged loans equals 8.2%, while the non-performing loans rate is 4.4%.
[14]In households, the average risk of prolonged loans is 1.1%, 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-functional, reduces the capital adequacy ratio of the banking system from the initial 18% to 15.5%, which is a minor improvement compared to the last quarter (decrease of 2.7 percentage points). The improvement in the results stems from the higher capital adequacy before the simulations, and slightly from the decrease in the level of the concentration level in the non-financial sector's loan portfolio[15]. As of 30.6.2023, the reduced capital adequacy ratio in such scenario would range from 1.3 percentage points to 4.9 percentage points, whereby it 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[16] hypothetical shocks of worsening of the quality of credit portfolio to the non-financial sector. Even in the case of this extreme simulation, the capital adequacy of the banking system does not fall below the requirement. Upon this simulation, the capital adequacy ratio reduces by 5.5 percentage points, to 12.28%[17] (5.2 percentage points and 12.4%, respectively at the end of 2022). The shocks would cause absorption of 30.8% of the initial capital adequacy ratio, which is slightly more compared to the end of 2022 (29.3% of the initial capital adequacy ratio). The greatest effect on the capital adequacy ratio is that of the assumed new restructuring of the credit risk exposure that the banks would carry out on the regular exposure without a current delay in repayment of liabilities (contribution of 38.9% to the decrease of capital adequacy), followed by deteriorated quality of credit exposure with residual

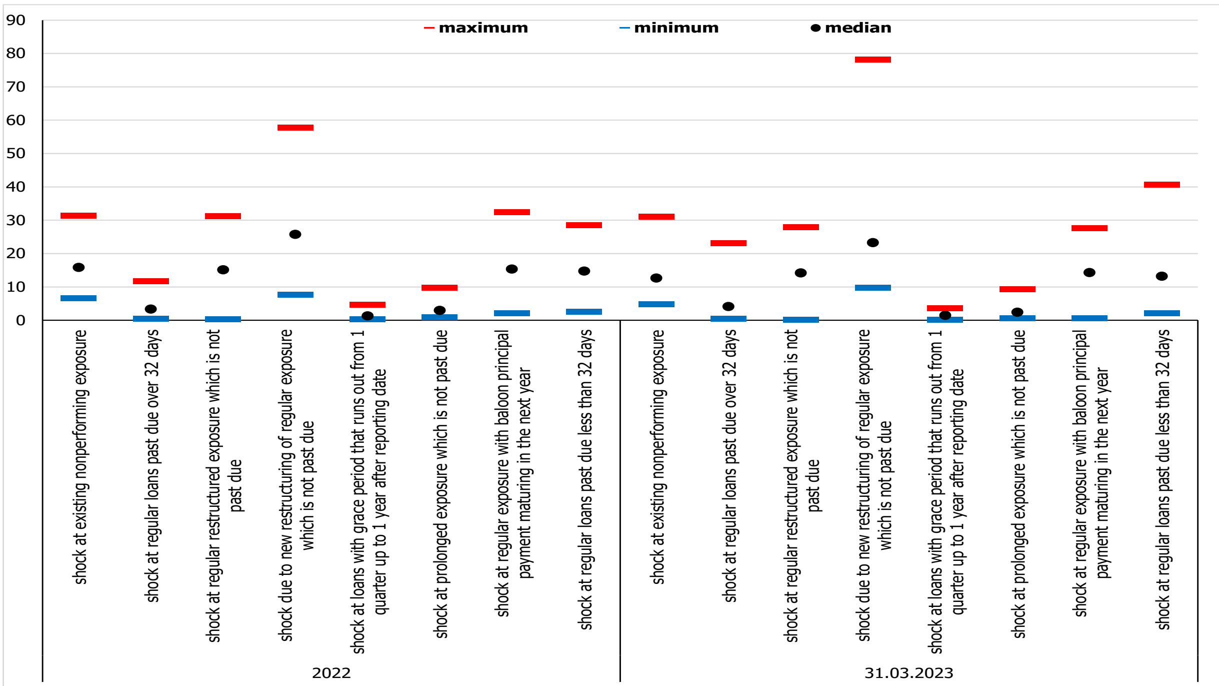
[15] On a quarterly basis, the five largest exposures to the non-financial sector decreased by 2.0%, while own funds increased by 1.4%. This contributed to reducing the share of the five largest exposures to the non-financial sector in own funds to 46.6% as of 31.3.2023 (from 48.1% as of 31.12.2022).

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

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

maturity and which falls due in the coming year (contribution of 17.4%) and the complete default of the existing non-performing exposure (contribution of 13.6%).[18]

Chart 14 Minimum, maximum and median of new expected credit losses by shocks
in %



Source: NBRM calculations, based on data submitted by banks.

[18] The deterioration of the credit exposure quality, where there is an agreed one-time principal repayment that falls due in the coming year and the complete default of the existing non-performing exposure show an improvement, i.e. there is smaller contribution to the reduction of the capital adequacy ratio compared to the end of 2022, when their contribution was 18.3% and 15.4%, respectively.

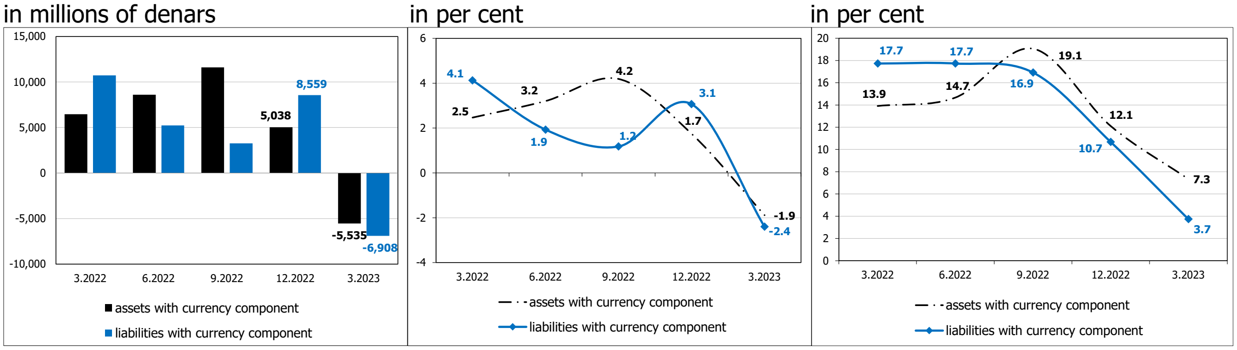
2. Currency risk

In the first quarter of 2023, the currency component in the banks' balance sheet decreased. The gap between assets and liabilities with currency component remains moderate and is by three times lower than the regulatory limit of 30% of own assets. However, in the first quarter of 2023, the gap widened due to the more significant decrease in foreign currency deposits on the liability side, compared to the quarterly decline of cash and foreign currency loans on the assets side.

The share of loans with currency component to non-financial companies and households increased in the first quarter of 2023 and remained relatively high, which highlights the importance of banking system exposure to indirect currency risk. However, given that loans in euros and in denars with euro clause have the largest share in total loans, the strategy for maintaining a stable exchange rate of the denar against the euro is crucial for mitigating the effects of materialization of this risk.

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

in millions of denars | in per cent | in per cent

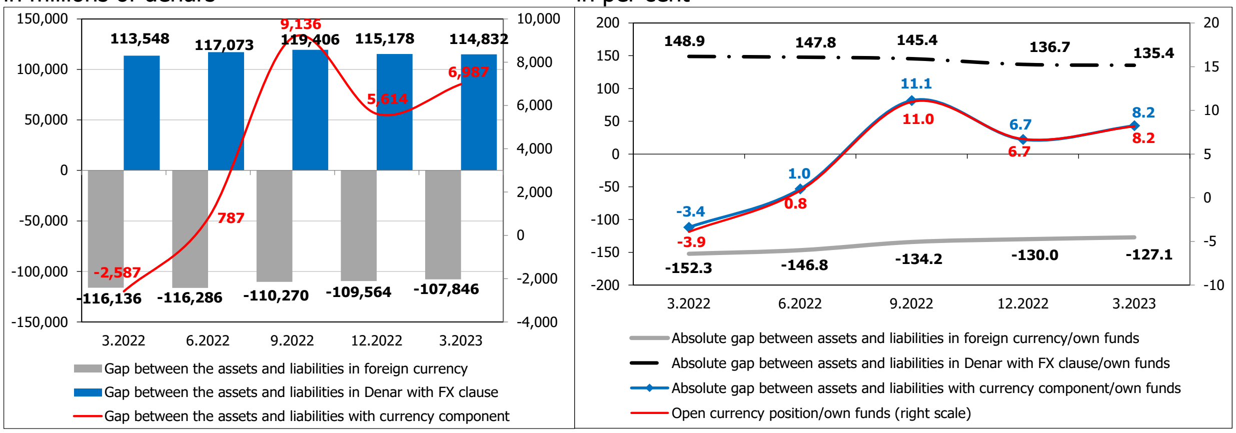


Source: National Bank, i.e. the open currency position report based on data submitted by banks.
*The assets are on a net basis, reduced by impairment of claims classified in risk categories C, D and E, in accordance with the regulations on currency risk management. DBNM is not included in the analysis,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

The gap between assets and liabilities with currency component as of 31.3.2023 expanded (by Denar 1,373 million or by 24.4%) compared to the previous quarter and amounted to Denar 6,987 million. The expansion is a result of the higher decrease in liabilities (which decreased by Denar 6,908 million or by 2.4%)[19] compared to the decrease in assets with currency component (which decreased by Denar 5,535 million or by 1.9%).[20] The positive gap accounts for 8.2% of own funds, which is by 1.5 percentage points higher compared to the previous quarter, indicating certain increase in the direct exposure of banks to currency risk. The open currency position[21] registered identical share in own funds of 8.2% and is slightly above the ten-year average, yet still significantly below the requirement of 30%.

Chart 15 Structure of the gap between assets and liabilities with currency component (left) and share of the assets and liabilities with currency component in own funds (right)

in millions of denars / in per cent

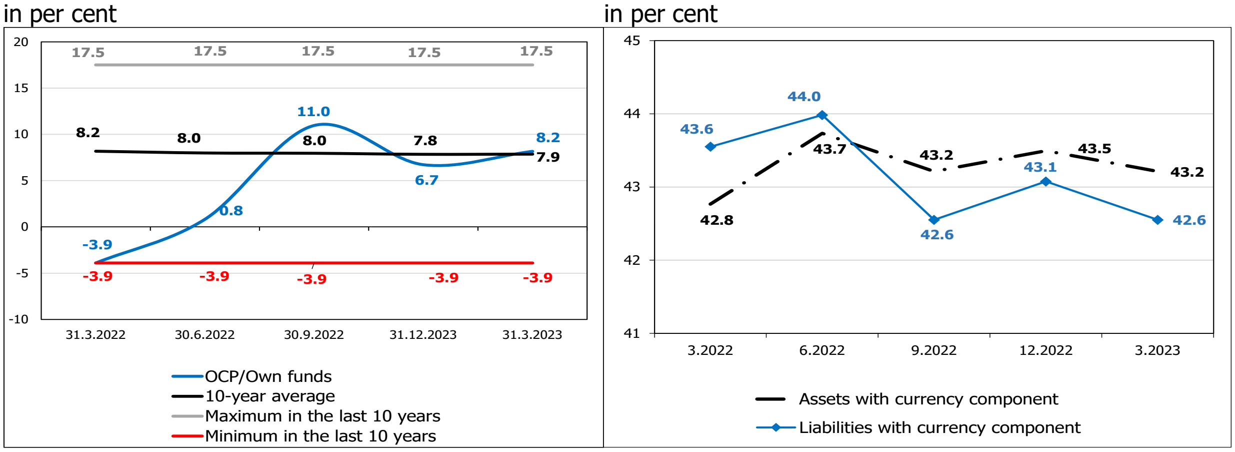


Source: National Bank, based on the data submitted by banks.

The decline in assets with currency component was more pronounced than the decline in total assets (which decreased by Denar 3,999 million or by 0.6%), thus its share in total assets decreased by 0.3 percentage points. Similar movements were noted in liabilities with currency component, the share of which in total assets decreased by 0.5 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 the data submitted by banks.

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

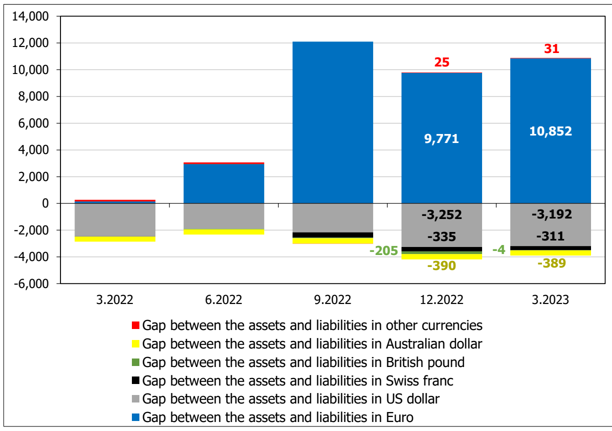
[19] The quarterly decline in liabilities with currency component is mainly due to decreased foreign currency deposits by Denar 5,148 million, and to assets on current accounts and other short-term liabilities by Denar 1,137 million.

[20] The quarterly decline in assets with currency component is mostly due to the decrease in assets with foreign banks by Denar 5,137 million, and to foreign currency loans by Denar 2,590 million, cash with the NBRNM by Denar 1,201 million and financial assets available for sale in denars with FX clause by Denar 1,107 million. On the other hand, the growth of foreign currency demand deposit by Denar 2,785 million have a mitigating effect, as well as foreign currency deposit with other banks by Denar 1,111 million.

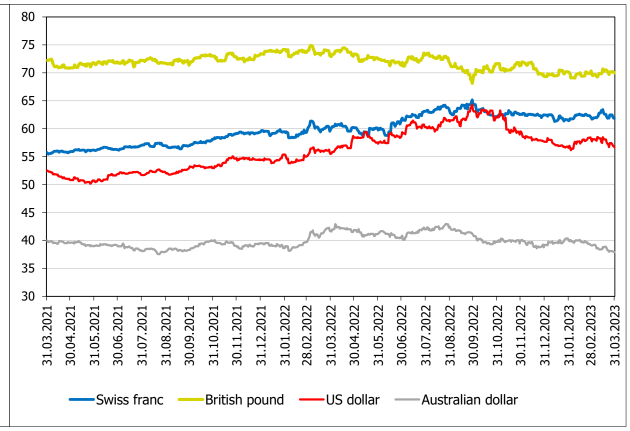
[21] The calculation of the open currency position, in addition to the gap between the on-balance sheet assets and liabilities with currency component, also includes the gap between the off-balance sheet assets and liabilities with currency component.

Chart 18 Structure of the gap between assets and liabilities with currency component, by currency (left) and movement of the denar against the US dollar, Swiss franc, British pound and Australian dollar (right)

in millions of denars



in denars



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

The analysis by currency shows that the long currency position is mainly due to the positive gap in euros and in denars with euro clause, which amounts to Denar 10,852 million and is maintained at the same level for a third consecutive quarter. The positive gap between assets and liabilities with euro component compared to the previous quarter increased by Denar 1,081 million, or by 11.1%, due to the higher decline in liabilities than assets in this currency[22]. The gap between assets and liabilities with US dollar component was negative, amid slight increase in assets and liabilities[23] and registered no significant changes compared to the previous quarter (decreased by Denar 60 million, or by 1.9%). The value of US dollar against the euro and consequently against the denar in the first quarter of 2023 stabilized, although with a decreasing tendency which points to a decrease in the banking system exposure to currency risk compared to the previous year. Other currencies registered short currency position[24], but their share in currency structure is very low, thus their changes do not significantly affect the overall gap.

[22] The assets with euro component decreased by Denar 6,194 million, or by 2.3%, while the decline reflects the decrease assets, cash equivalents, gold and precious metals by Denar 3,817 million, foreign currency loans by Denar 2,479 million and foreign currency deposits by Denar 1,728 million. The liabilities with euro component declined by Denar 7,275 million, or by 2.8%, mainly due to decreased foreign currency deposits by Denar 5,293 million and assets on current accounts and other short-term liabilities by Denar 1,442 million.

[23] The assets with US dollar component grew by Denar 258 million, or by 1.5%, due to increased US dollar deposits by Denar 576 million, as well as increased assets, cash equivalents, gold and precious metals by Denar 346 million, mitigated with the decrease in US dollar financial assets held to maturity by Denar 574 million and US dollar loans by Denar 112 million. Liabilities with US dollar component grew by Denar 198 million, or by 1.0%, due to the growth in assets on current account and short-term liabilities by Denar 237 million, yet m mitigated by the decrease in US dollar deposits of natural entities by Denar 186 million.

[24] The negative gap between assets and liabilities in British pounds and in denars with clause in this currency amounted to Denar 4 million, the Australian dollar decreased insignificantly and amounted to Denar 389 million, while Swiss franc significantly narrowed to Denar 311 million. The cumulative gap in other unmentioned currencies was positive amounting to Denar 31 million with a slight widening.

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

Currency	31.12.2022		31.3.2023	
	Assets	Liabilities	Assets	Liabilities
Euro	91.2	89.6	90.8	89.2
US dollar	5.9	7.1	6.1	7.4
Swiss franc	1.2	1.3	1.3	1.4
Australian dollar	0.5	0.6	0.4	0.6
British pound	0.5	0.6	0.6	0.6
Other	0.7	0.8	0.8	0.8
Total	**100.0**	**100.0**	**100.0**	**100.0**

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

The exposure of the banking system, to indirect currency risk exists due to the share of loans with currency component in their credit portfolio. As of 31.3.2023, total loans with currency component accounted for 43.2% of total loans to non-financial sector and their share remained unchanged compared to the previous quarter, while the share of household and corporate loans with currency clause slightly increased[25]. However, conducting a fixed nominal exchange rate of the Operational Risk Management Policy against the Euro is the key factor for mitigating banks' indirect currency risk, in conditions when 99.6% of the loans with currency component are in euros or in denars with euro clause.

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%	5	2	8	4	9	2	8	3	5	3	11	1	6
from 5% to 10%	3												2
from 10% to 20%	1												3
from 20% to 30%													
over 30%													

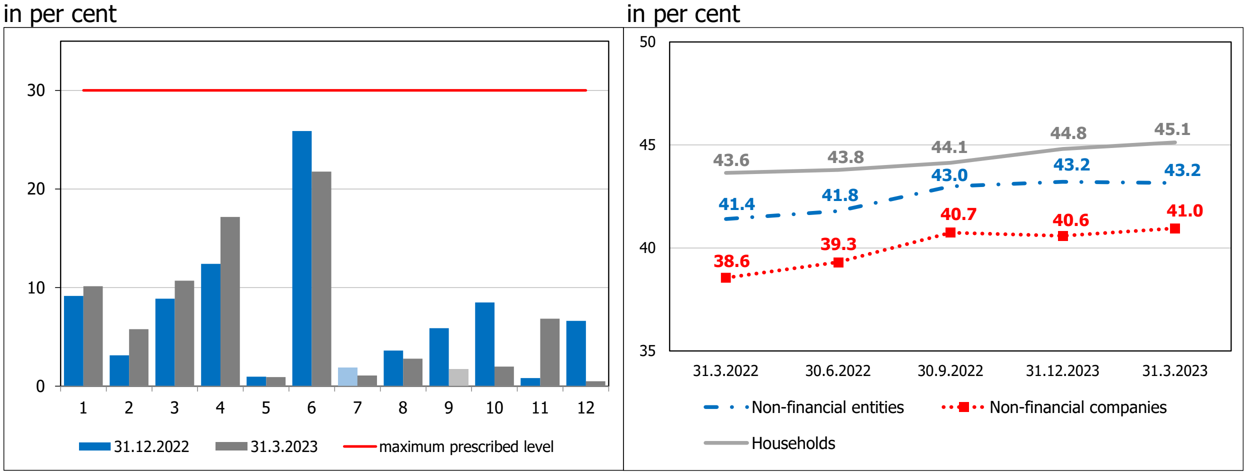
Source: National Bank, based on the data submitted by banks.

The aggregated foreign currency position of own funds in individual banks as of 31.3.2023 ranges from 0.5% to 21.8%, which is the same level compared to the previous quarter and is below the prescribed limit of 30%. The foreign currency position in eleven banks is long, while only one bank reported short position.

[25] Such changes are due to significant decrease in loans with currency component of other clients, which is a result of the repayment of foreign currency loan of the country to one commercial bank.

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 the data submitted by banks.
* Columns with lighter shades refer to the banks that have a short currency position, but are shown in absolute value. The analysis does not include DBNM.

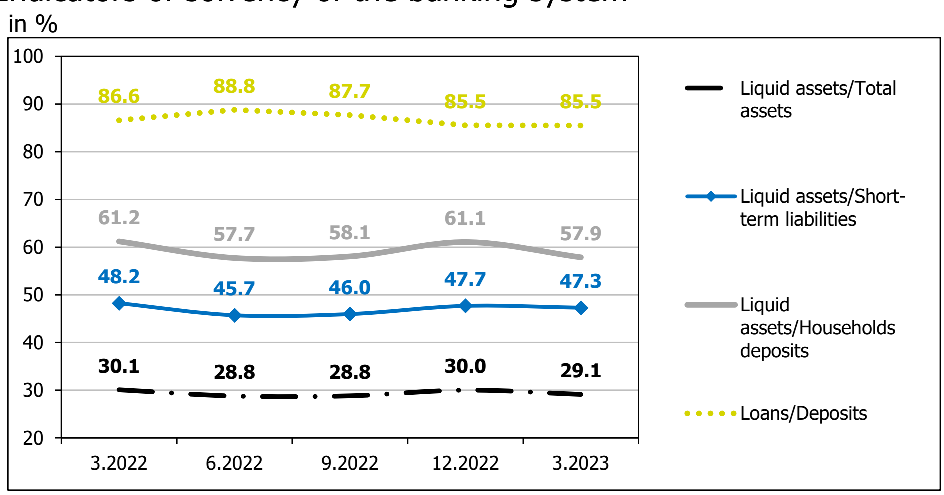
3. Liquidity risk

In the first quarter of 2023, the liquidity position of the banking system remained stable. However, amid quarterly decline in deposits (by 0.8%), the banking system liquid assets quarterly decreased by 4.2%, which is partly due to the seasonal factors in this period of the year. Thus, the banking system liquidity ratios recorded a minor downward movement, which caused no significant deviations of the ratios from their usual satisfactory level. The Liquidity Coverage Ratio of the banking system is by 2.7 times higher than the regulatory minimum (100%), i.e. it amounts to 269.5%, which confirms the solid volume of banks' liquid assets which provides liquid risk within acceptable frames, without 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 level of 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

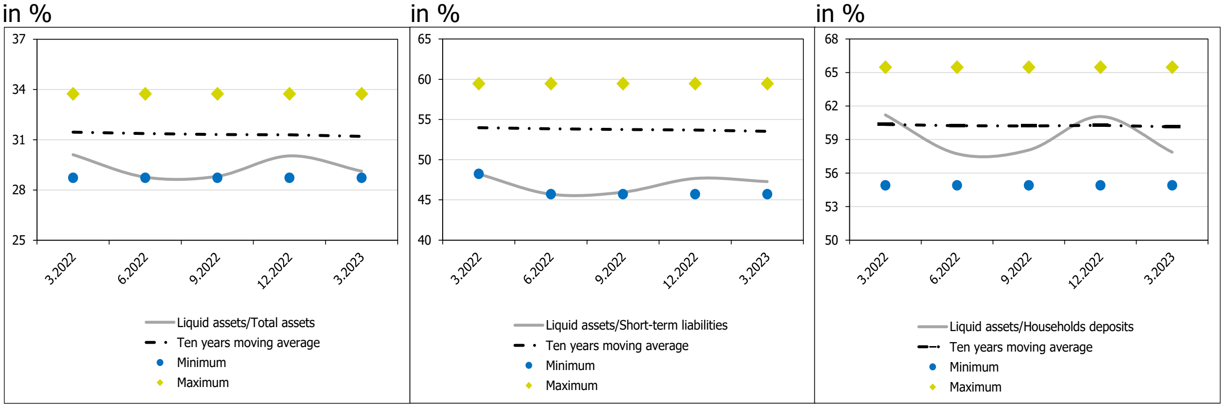
In the first quarter of 2023, in conditions of moderate decrease in liquid assets of the Macedonian banking system, the liquidity indicators registered certain worsening, without significant deviations from the usual satisfactory level.

Chart 16 Indicators of solvency 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 17 Liquid assets / total assets (top), liquid assets / short-term liabilities (middle) and liquid assets / household deposits (bottom)



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

The indicators are below their ten-year average, but indicate appropriate liquidity risk management by banks, without liquidity pressures, which is confirmed with the solid share of liquid assets in total liquid assets of banks (29.1%) and with satisfactory coverage of short-term liabilities and household deposits with liquid assets (of 47.3% and 57.9%, respectively[26]).

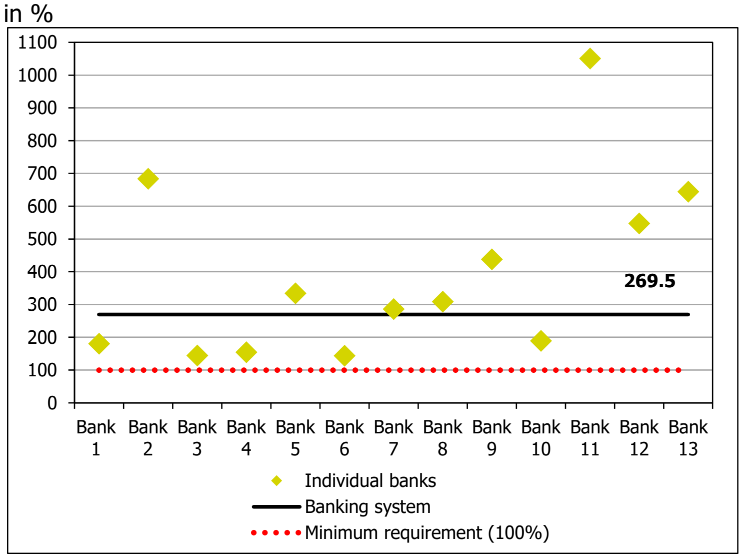
The Liquidity Coverage Ratio of the banking system equals 269.5%, which is by 2.7 times higher than the regulatory minimum (100%[27]) and confirms the satisfactory volume of liquidity available to the Macedonian banking system. Bank-by-bank analysis shows that the liquidity coverage ratios range from 143.7% to 1050.5% (with a median of 308.5%), which also indicates acceptable liquidity risk frames to which banks are exposed and their stable liquidity management.

According to currency features of liquid assets and liabilities, the foreign currency liquidity ratios in the first quarter of 2023 registered a slightly more pronounced decrease compared to the denar liquidity ratios[28], given that the foreign currency liquid assets contribute more to the decline in total liquid assets (the decrease in foreign currency liquid assets was mostly a result of the one-off effect due to repayment of foreign currency deposit abroad). 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 risks arising from the lower foreign currency liquidity

[26] Analyzed by bank, as of 31.3.2021, the share of liquid in total assets ranges between 20.1% and 49.3%, with a median of 25.6% (March 2022: between 20.3% and 50.2%). The coverage of short-term liabilities with liquid assets ranges between 32.3% and 65.3%, with a median of 45.6% (March 2022: between 34.8% and 71.8%), and the coverage of household deposits with liquid assets ranges between 30.4% and 105.2%, with a median of 59.4% (March 2022: between 39.8% and 100.9%). The Development Bank of North Macedonia AD Skopje is excluded from this analysis.
[27] Besides accumulatively, 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, the minimum level of liquidity coverage ratios by currency is not prescribed. As of 31 March 2023, the liquidity coverage ratios for the two significant currencies, euros and denars, were 96.9% and 307.7%, respectively.
[28] Claims and liabilities with FX clause are considered denar claims and liabilities, since their cash flow is in denars.

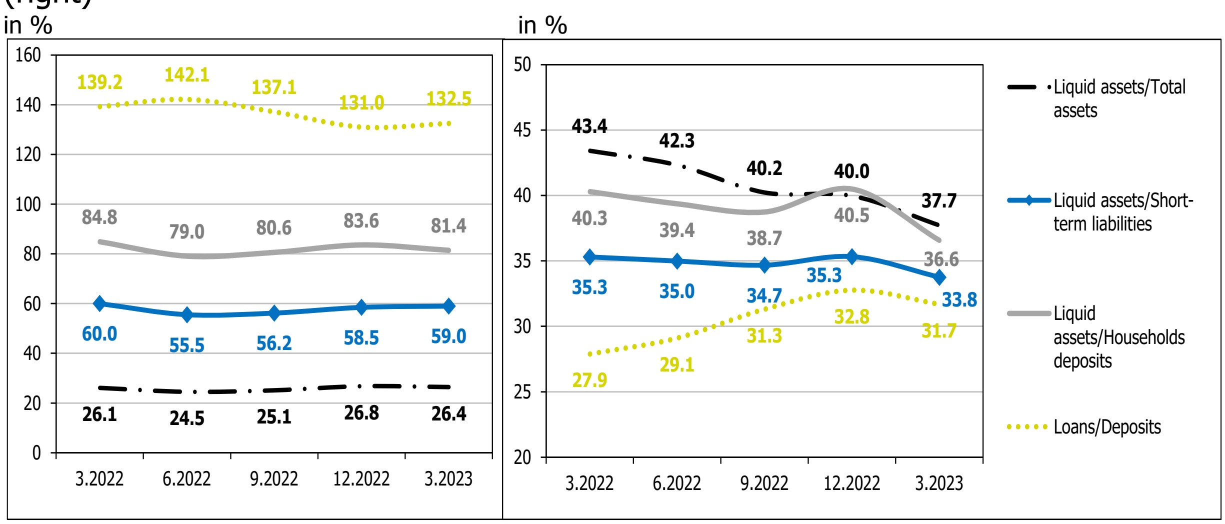
indicators are mitigated by high denar liquidity and the possibility to provide foreign currency liquid assets[29], if necessary.

Chart 18 Liquidity coverage ratio, as of 31 March 2023



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

Chart 19 Banking system liquidity ratios by currency-denar (left) and foreign currency (right)



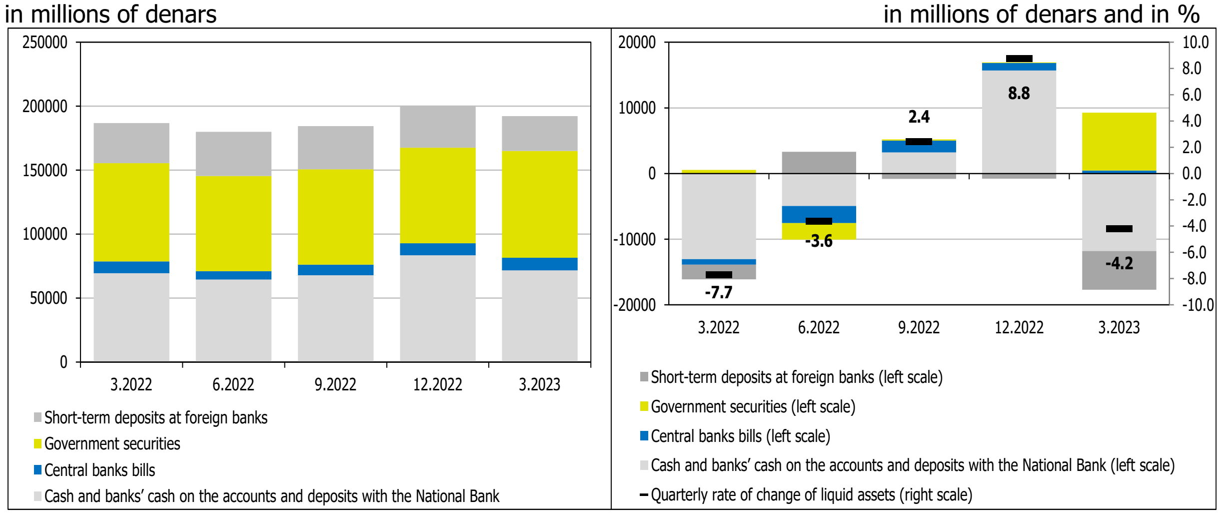
Source: National Bank, based on the data submitted by banks.

[29] Bank can provide the necessary foreign currency liquid assets at any time through the National Bank interventions on the foreign exchange market. In addition, the European Central Bank (ECB) decided to extend the validity of repo line granting the National Bank access to euro liquidity for the first time in August 2020, with adequate collateral. The deadline for application of the repo line, worth up to Euro 400 million, has been extended to January 2024. So far, the National Bank has not used funds from the repo line. For more details, please visit https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr221215~6bc5ecf0ff.en.html.

3.2. Dynamics and composition of liquid assets

At the end of the first quarter of 2023, the liquid assets[30] of the banking system amounted to Denar 192,130 million. Amid quarterly decline in deposits (by 0.8%), largely due to the common seasonal effects in this period of the year, with still pronounced risks due to the prolonged war in Ukraine and inflation pressures as well as the challenges related to energy crisis, **liquid assets of the banking system decreased by 4.2%, i.e. Denar 8,429 million**. The repayment of foreign currency deposit abroad had a certain one-off effects. Analyzing financial instruments which account for liquid assets, the decrease was mostly pronounced in placements of banks in overnight deposit facilities with the National Bank (decline of Denar 34,430 million, or by 79.9%), compared to the increase in placements of banks with seven-days deposit facilities with the National Bank (which increased by almost four times, i.e. by Denar 22,200 million)[31]. More significant decrease was recorded in banks' assets to corresponding accounts and short-term deposits placed in foreign banks (decline by Denar 5,897 million, or by 17.9%). On the other hand, assets on denar account with the National Bank slightly grew (increase of Denar 226 million, or 3.6%), while investments of banks in government securities increased (placements in government securities by Denar 8,312 million, or by 15.1%, while placement in treasury bills

Chart 20 Liquid assets, structure (left) and growth (right)



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

[30] 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.

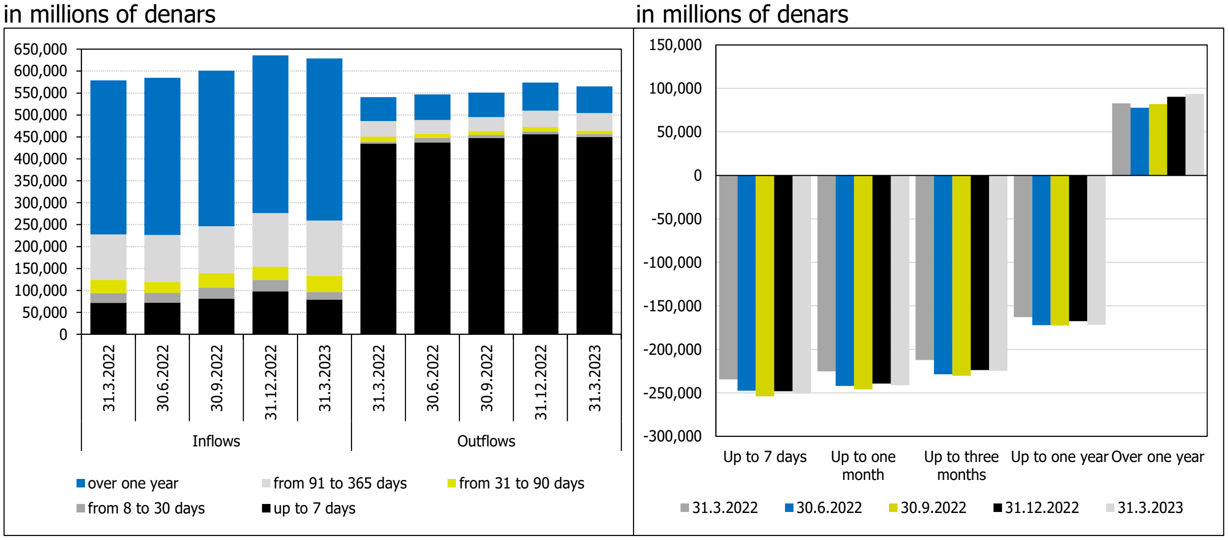
[31] In the first quarter of 2023, the National Bank continued to tighten monetary policy, which started since the end of 2021, by actively managing liquidity through the interventions on the foreign exchange market, and from April last year by increasing interest rates. In addition to interest rates on the main instrument of the monetary policy, interest rates on overnight and seven-days deposit facilities also increased on two occasions, cumulatively by 0.75 percentage points to 3.40% and 3.45%, respectively. In May, interest rates were additionally increased by 0.25 percentage points.

by Denar 1,054 million, or by 6.4%). Banks' placements in CB bills grew by Denar 466 million, or by 4.9%[32].

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

As of 30 June 2021, the agreed inflows of banks distributed in the period over one year and the agreed outflows of banks distributed in the period up to seven days prevail in the maturity structure of banks' inflows and outflows. The largest difference (gap) between the banks' inflows and outflows is registered in the time periods up to seven days (negative gap) and over one year (positive gap), which results from the inclusion of liabilities on demand and without a maturity in the maturity segment up to seven days, i.e. due to claims based on loans and advances included in maturity segments over one year (long-term loans at the level of the banking system cover more than 80% of total loans to non-financial entities). The cumulative gaps in relation to the assets of the banking system are 37.1% (cumulative gap up to 7 days) and 25.4% (cumulative gap up to 1 year).

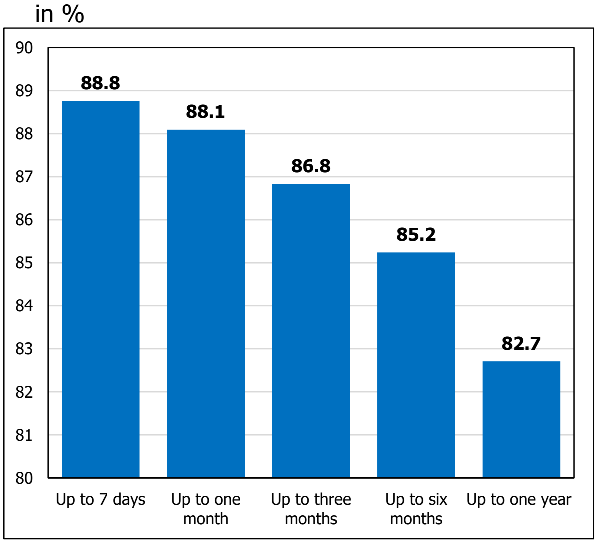
Chart 21 Maturity structure of inflows and outflows of balance sheets assets and liabilities (left) and cumulative gap between agreed inflows and outflows, including the cumulative amount of unencumbered assets (right)



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

[32] In the first quarter of 2023, as well as in May 2023, the interest rate on CB bills increased cumulatively by 1 percentage point, to the level of 5.75% (as of May 2023).
The offered amount of CB bills remained unchanged, i.e. Denar 10,000 million, while the demand in March and in May 2023 increased to the level of supply (Denar 10,000 million).

Chart 22 Expected deposit stability, according to the remaining period to maturity, as of 31.3.2023



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 assessed that the largest part of the agreed cash inflows and outflows (or 82.7%) based on deposits will not be realized by depositors in the next twelve months.

3.4. Stress-simulations for liquidity shocks

On 31.3.2023, 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 112.2% on 31.3.2023) only in case of significantly extreme simulation of liquidity shock, which covers combined outflows[33] 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 expanded with other financial instruments[34] owned by banks, for which it is estimated that banks will quickly and easily collect or turn into cash. In such a case, simulation of combined assumed shocks, the liquid assets of the banking

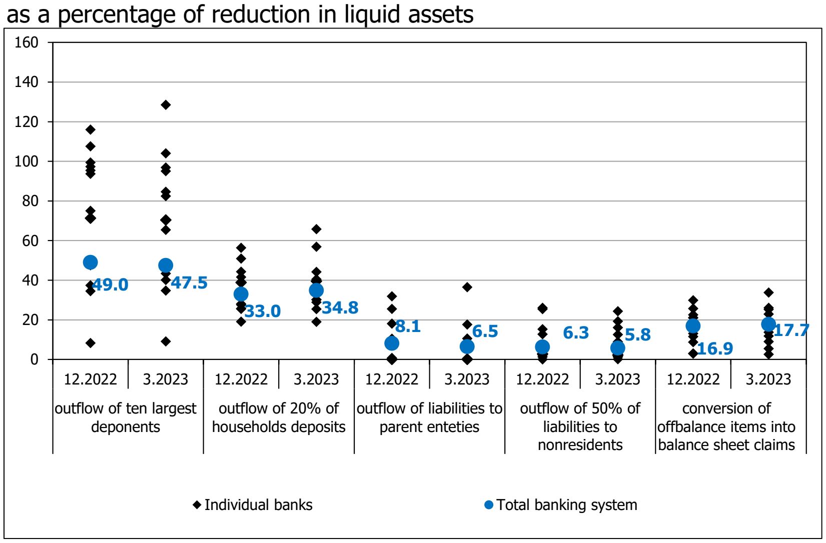
[33] The simulation assumes outflow of deposits of the ten largest depositors, 20% of household deposits, liabilities to parent entities (liabilities on subordinated instruments and hybrid capital instruments are excluded from the simulation as, according to the regulations for calculating capital adequacy, their repayment is regulated), 50% of the liabilities to non-residents (excluding liabilities to non-resident parent entities of banks which are already covered by one of the previous simulations) and conversion of certain off-balance sheet liabilities of the banks (uncovered letters of credit, irrevocable credit lines and unused limits based on credit cards and approved overdrafts on transaction accounts) into balance sheet claims. The simulations of liquidity shocks exclude the Development Bank of North Macedonia AD Skopje.

[34] 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.

system have the capacity to cover all assumed outflows (specifically, to cover liquidity outflows, it would take 97.4% of the available liquid assets, according to the expanded definition).

Chart 23 Contribution of individual combined shocks to the decline in the liquid assets in the simulation of a combined liquidity shock

as a percentage of reduction in liquid assets

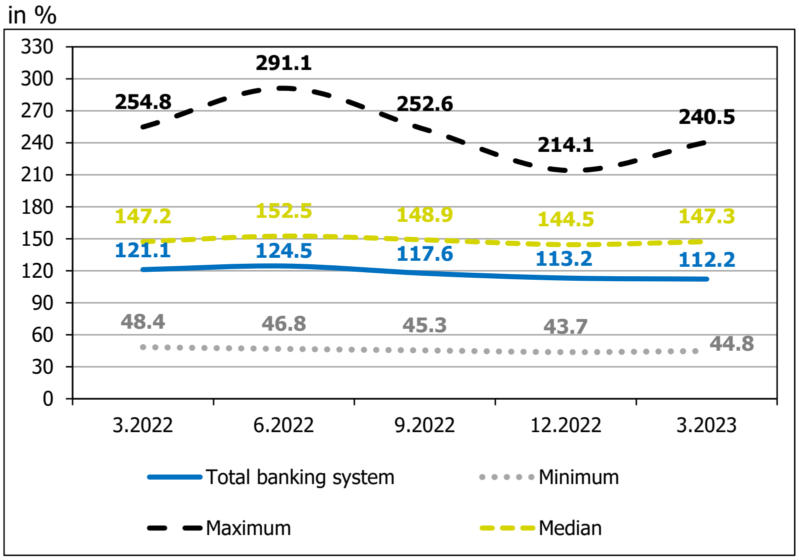


Source: National Bank, based on the data submitted by banks.

In 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, thereby confirming the importance of public confidence in the banking system. Amid assumed migration of certain off-balance sheet liabilities of banks to on-balance sheet liabilities[35], the banks would spend slightly less than 20% of their liquid assets. The small share of liabilities to non-residents, as well as to parent entities in the structure of the total sources of funding for banks, causes moderate impact of the shocks associated with them on the overall result of this simulation.

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

Chart 24 Reduction in liquid assets after the simulation of combined liquidity shocks (after all shocks)



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

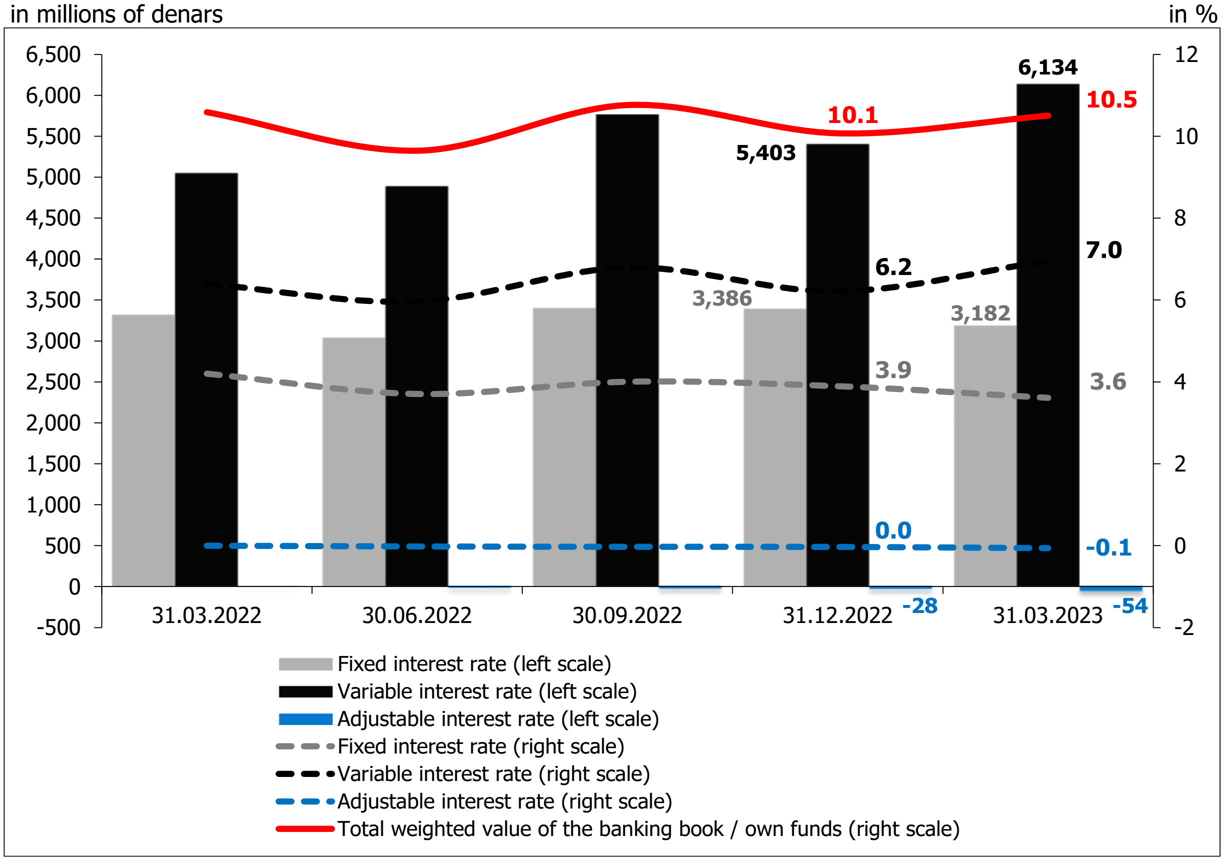
4. Interest rate risk

In the first quarter of 2023, the exposure of the banking system to interest rate risk from the basic banking activities increased. This is mostly due to the increase in the amount (weighted) of placements in loans with variable interest rate, as well as their redistribution from blocks with shorter to blocks with longer residual maturity until the next interest rate reassessment.[36] In contrast, net amount of interest sensitive assets and liabilities with fixed interest rate declined quarterly, due to the decrease in placements in deposits and loans. The total gap between interest sensitive assets and liabilities without the standard interest rate shock was positive, exposing the banking system to interest rate risk, on an aggregated basis. However, risk of materialization of such risk are minimal at least in the short run, amid tightening of financial conditions, both globally and in our country. However, in such conditions, coupled with the fact that loans with variable and adjustable[37] interest rates prevail in the banking book of banks, the importance of banks' exposure to indirect interest rate risk through their borrowers increases, due to the possibility to reduce their creditworthiness amid growth in interest-bearing debt.

[36] In accordance with the regulation, the banks' exposures to interest rate risk which arises from the banking activities, is monitored through the amount of the interest sensitive assets and liabilities (mainly loans and deposits), to which the interest rate shock for simultaneous positive and negative change of interest rates by 2 percentage points is being used. Also, interest sensitive assets and liabilities are distributed in time zones according to the period in which the interest rate change will occur. Moreover, the interest sensitive assets and liabilities with fixed interest rates are distributed according to the period of maturity of assets/liabilities, with variable interest rates according to the period of interest rate reassessment and with adjustable interest rates according to the probability and frequency of the interest rate change. The further each of these time zones, the higher the effect of the simulated interest rate shock of 2 percentage points, i.e. the higher the percentage which weights the amount of interest sensitive assets and liabilities. Specificity has been observed in loans with combined interest rates (fixed interest rate for a certain period, followed by variable interest rate), which are distributed in time zones according to the actual maturity of annuities in the period of the fixed interest rate (for the amount which is actually due in that period), while the rest of the amount to which the variable interest rate will be applied, is presented in the appropriate time zones according to the period of interest rate reassessment. In the end a net amount of the weighted interest sensitive assets and liabilities is determined, which according to the regulations is **called the weighted value of the banking book and** determines the change in the economic value of this portfolio, amid assumed interest rate shock of ±2 percentage points.

[37] Adjustable interest rate is the interest rate which changes unilaterally, upon bank's decision.

Chart 25 Total weighted assets of the banking book*, by interest rate type, in absolute amount (left scale) and relative to own funds (right scale)

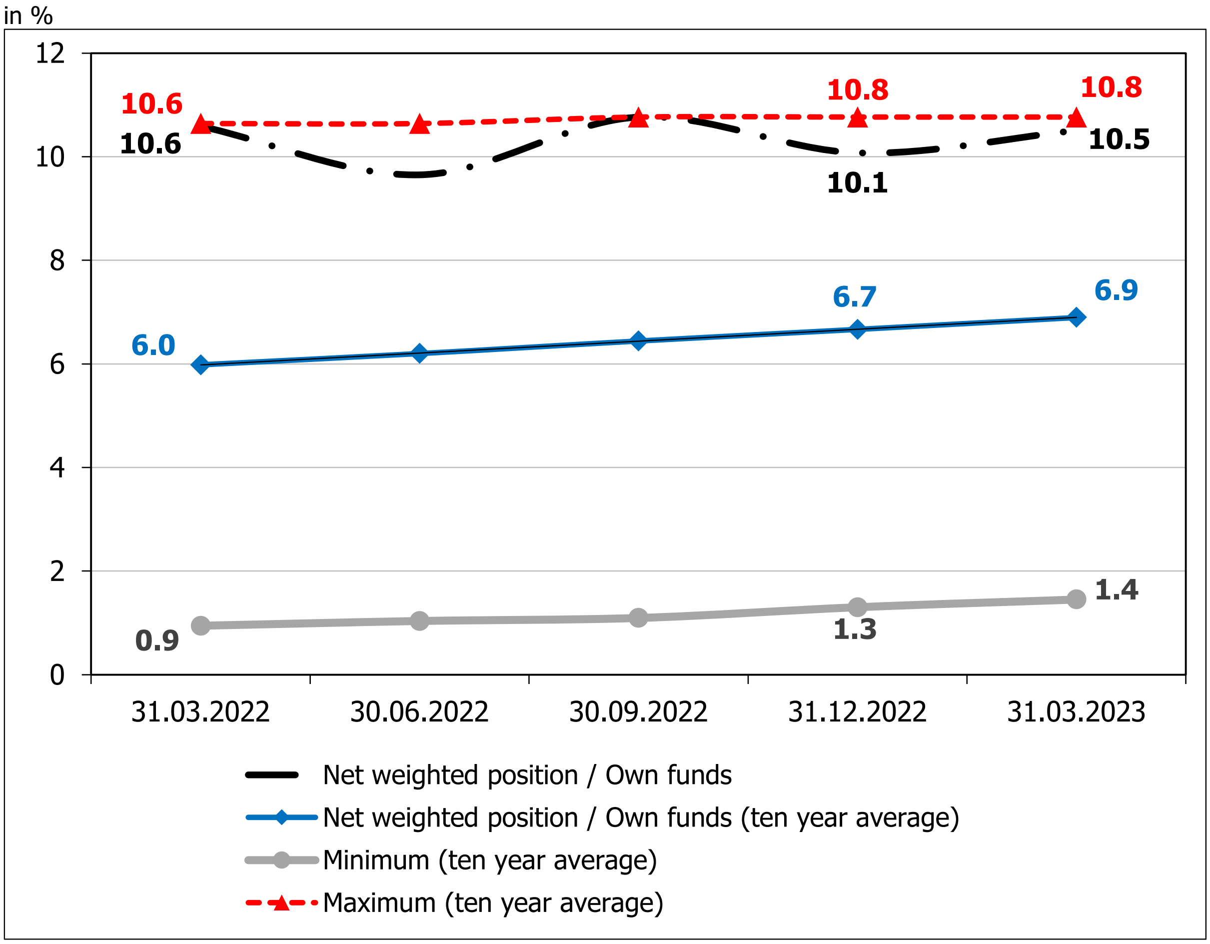


Source: National Bank, based on the data submitted by banks.
*The total weighted value of the banking book denotes the potential loss of the economic value of this portfolio, amid assumed unfavorable interest shock of ±2 percentage points.

The total weighted value of the banking book[38] registered a quarterly increase of Denar 501 million, or by 5.7%, which amid growth in own funds (by 1.4%), caused an increase in 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 0.4 percentage points, to 10.4%. This ratio is below the maximum from the last ten years (20.8%), yet above the ten-year average which amounts to 6.9%. Analyzing by bank, this ratio ranges from 0.9% to 16.5%, and is below the threshold 20%[39].

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

Chart 26 Indicator of the interest rate risk exposure of the banking activities (net weighted position/ own funds)

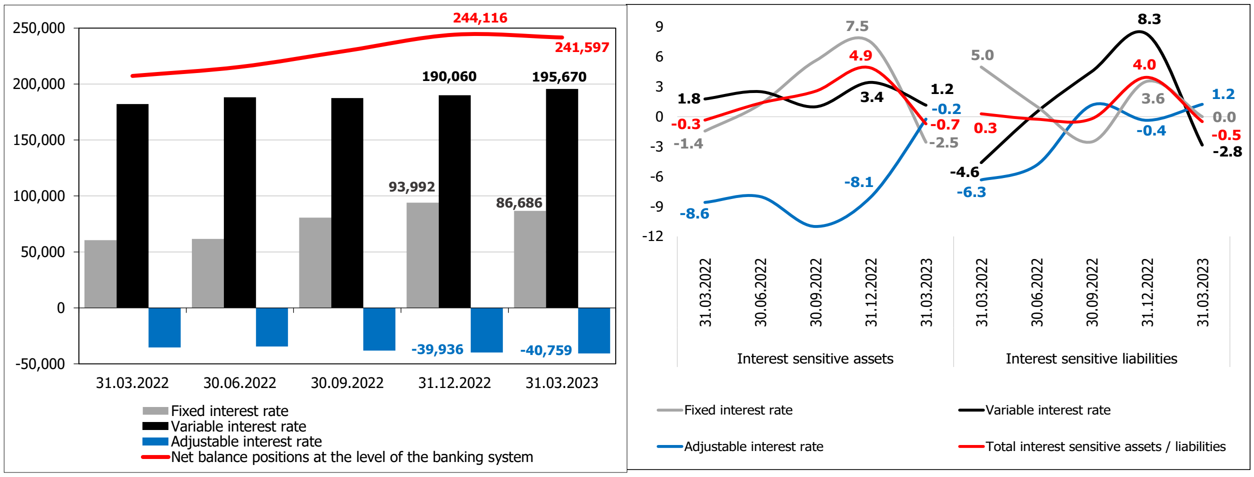


Source: National Bank, based on the data submitted by banks.

Analyzing the type of interest rate, the quarterly growth of the weighted value (net) of the banking book mostly results from the increase in the weighted value of the portfolio with variable interest rate (by Denar 731 million or 13.5%). The increase in the weighted value (net) of the portfolio with variable interest rate is primarily due to increase in the amount, and to reallocation of placements in loans with this type of interest rates from blocks with shorter (up to one month) to blocks with longer period until the next interest rate reassessment (3-6 months). In contrast, the weighted value (net) of the portfolio with fixed interest rate registered a quarterly decline (by Denar 204 million or by 6%), which is due to the decrease in placements of time deposits and loans with this type of interest rate. A slight widening (of Denar 26 million) was registered in the weighted value of the portfolio with adjustable interest rate.

Chart 27 interest sensitive assets and liabilities by type of interest rates, gap (left) and quarterly change (right)

in millions of denars in %

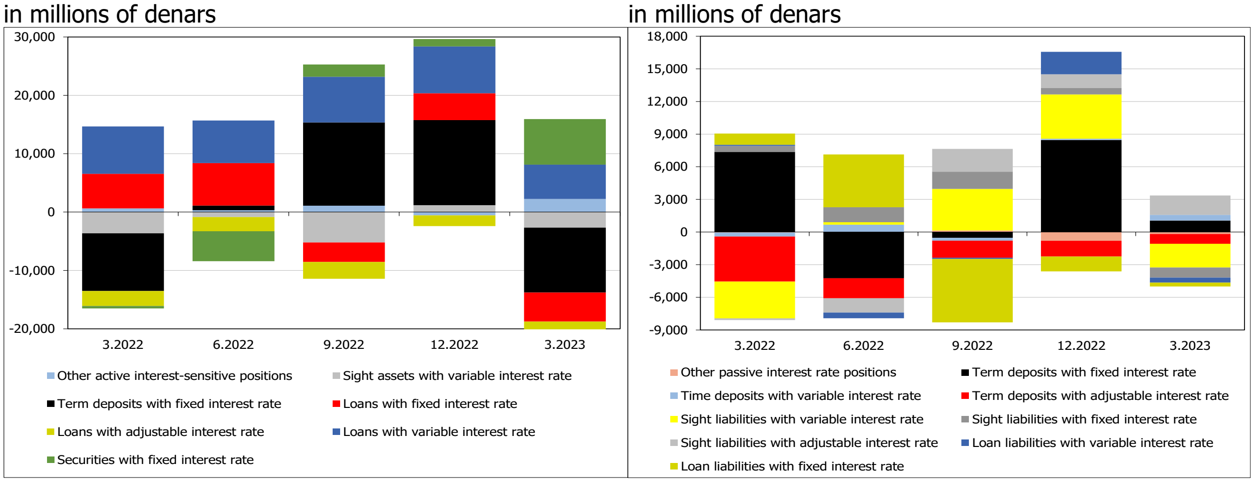


Source: National Bank, based on the data submitted by banks.

The total, unweighted gap between interest sensitive assets and liabilities (i.e. net amount of interest sensitive assets and liabilities not using the prescribed interest rate shock of 2 percentage points) **registered a minor quarterly decline of 1% or Denar 2,518 million.** This was mostly due to the narrowing of the **positive gap between positions with fixed interest rate** (by 7.8% or by Denar 7,307 million), mostly as a result of the decreased placements in short-term time deposits and placements in loans, amid simultaneous increase in placements in securities. **The positive gap between assets and liabilities with variable interest rate** widened (by Denar 5,611 million or by 3%), mostly due to the increased placements in loans, with this type of interest rates. **The negative gap between assets and liabilities with adjustable interest rate** widened (by Denar 823 million or by 2.1%), which is due to the reduced placements in loans, amid simultaneous increase in liabilities on demand with this type of interest rates.

Chart 28 Quarterly changes in interest sensitive assets (left) and liabilities (right), by type of instrument and type of interest rate

in millions of denars in millions of denars

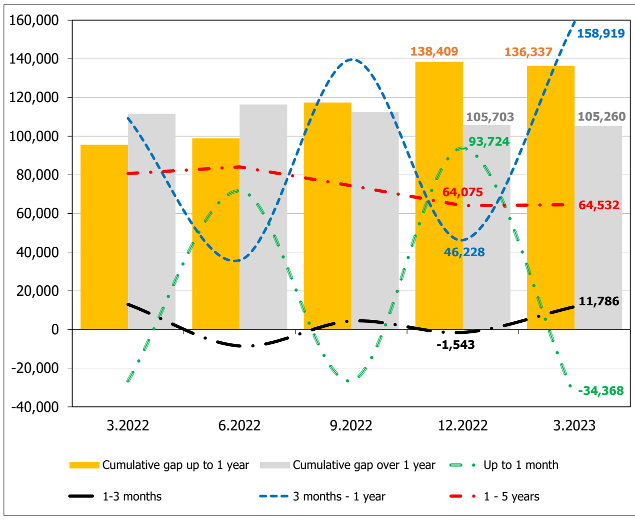


Source: National Bank, based on the data submitted by banks.

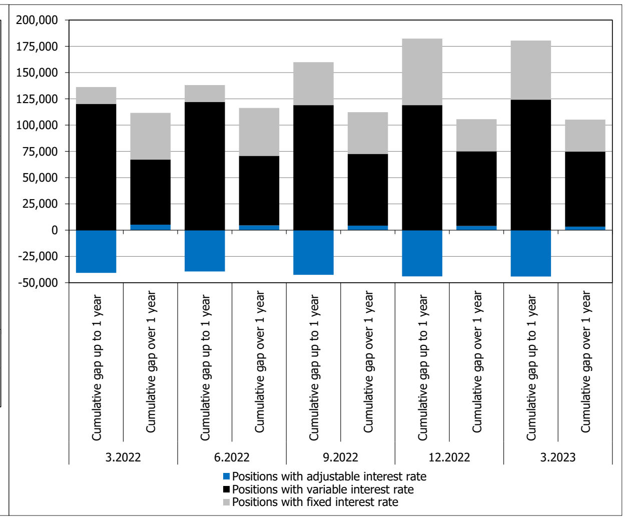
Analyzing the time period until the next interest rate reassessment, the tightening of the total gap between the interest-sensitive assets and liabilities is mostly due to the tightening of the gap up to 1 month, by Denar 128,092 million. Such narrowing mostly stems from the reduced placements in deposits and loans with fixed interest rate. At the same time, the gap from three months to one year grew (Denar 122,691 million) which on the other hand, is mostly conditioned by the increase in the placements in loans with variable interest rate.

Chart 29 Asset-liability gap, by period until next interest rate revaluation (left) and gap structure by interest rate type (right)

in millions of denars



in millions of denars

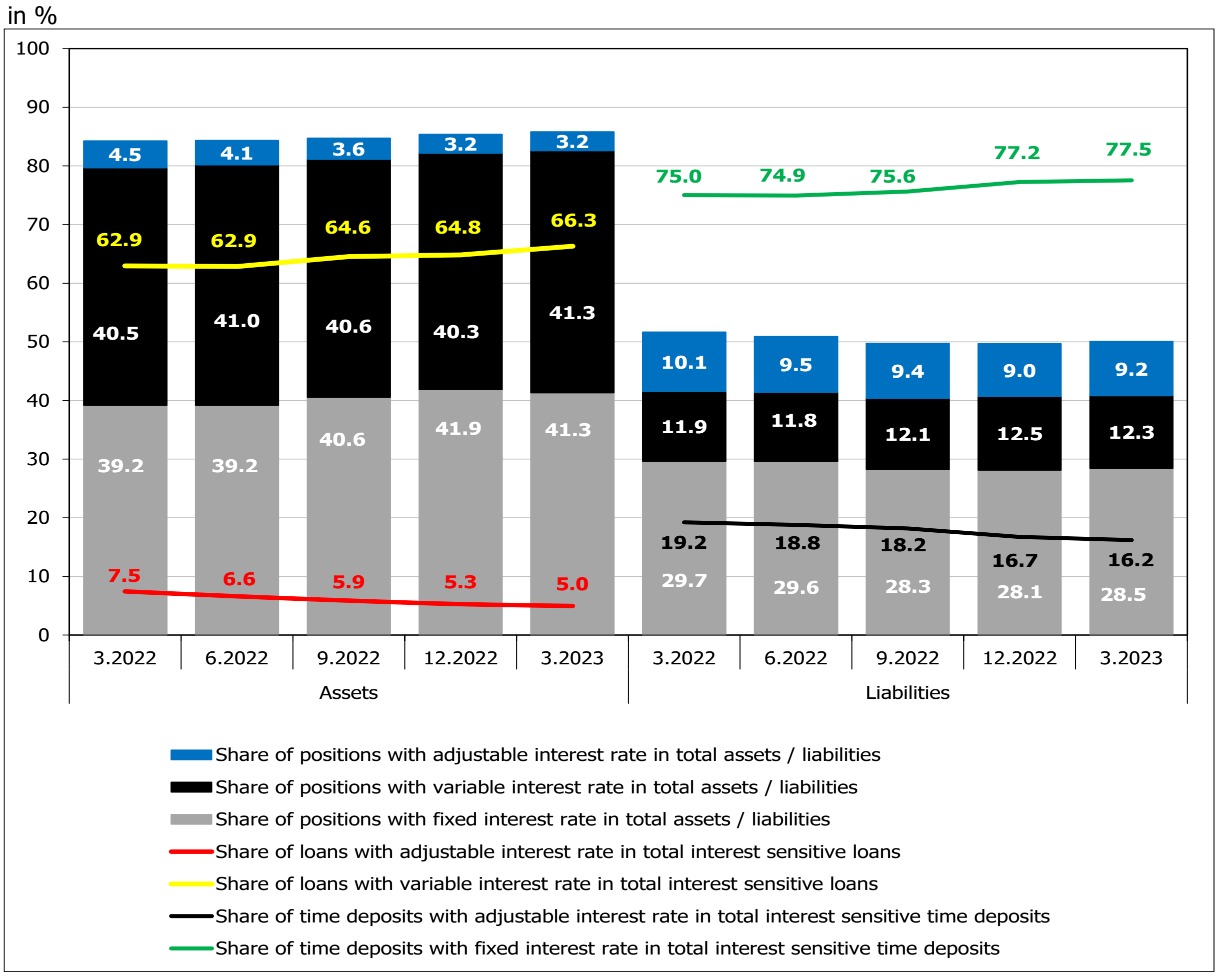


Source: National Bank, based on the data submitted by banks.

The indirect exposure to interest rate risk, which arises from the presence of loans with adjustable and variable interest rates, remains significant. As of 31.3.2023, the cumulative share of these loans in the total loans is 71.3% (increase of 1.2 percentage points compared to 31.12.2022), whereby 66.3% of the total loans have variable interest rate, while 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 31.3.2023, fifteen percent of total loans, for the purposes of these reports, are shown as loans with variable interest rate, in the respective future time block which is envisaged to be regulated by variable interest rate, although they are currently regulated by fixed interest rate[40].

[40] Or in other words, as of 31.3.2023, about 51.4% of the loans are with changeable (variable and adjustable) interest rate, while the remaining 15% (up to the presented 66.3% as of 31.12.2022), are currently with fixed interest rate, which during the life expectancy of the loans (usually after several years) will be replaced by a variable or adjustable interest rate.

Chart 30 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 Annexes to this Report.

5. Insolvency risk

The solvency and capitalization ratios of the banking system improved in the first quarter of 2023. The capital adequacy ratio increased by 0.3 percentage points to 18%, which is the maximum value up to date (if we exclude the period to mid-2007, when the credit activity had a modest share in the balance sheet of the banking system and started to revive). This growth reflects the quarterly growth of own funds and the decline in risk-weighted assets. The growth of own funds in the first quarter was mostly due to retained profits of banks, while the decrease in the risk-weighted assets mostly stems from the reduced credit risk exposure. Most of the growth in own funds was used to increase the "free" capital above the minimum regulatory (including the capital buffers) and supervisory requirements, which have so far accounted for 11.8% of own funds. This surplus, together with the capital buffers, accounts for almost one third of the 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, taking into account the challenges faced by banks and their clients, including the higher inflation level, the military conflict between Russia and Ukraine, as well as the shocks on the international financial markets in the first quarter of 2023. In such conditions, the solvency of the banking system is one of the main pillars of the banking system stability which mitigates the negative effects of a possible risk materialization of any nature.

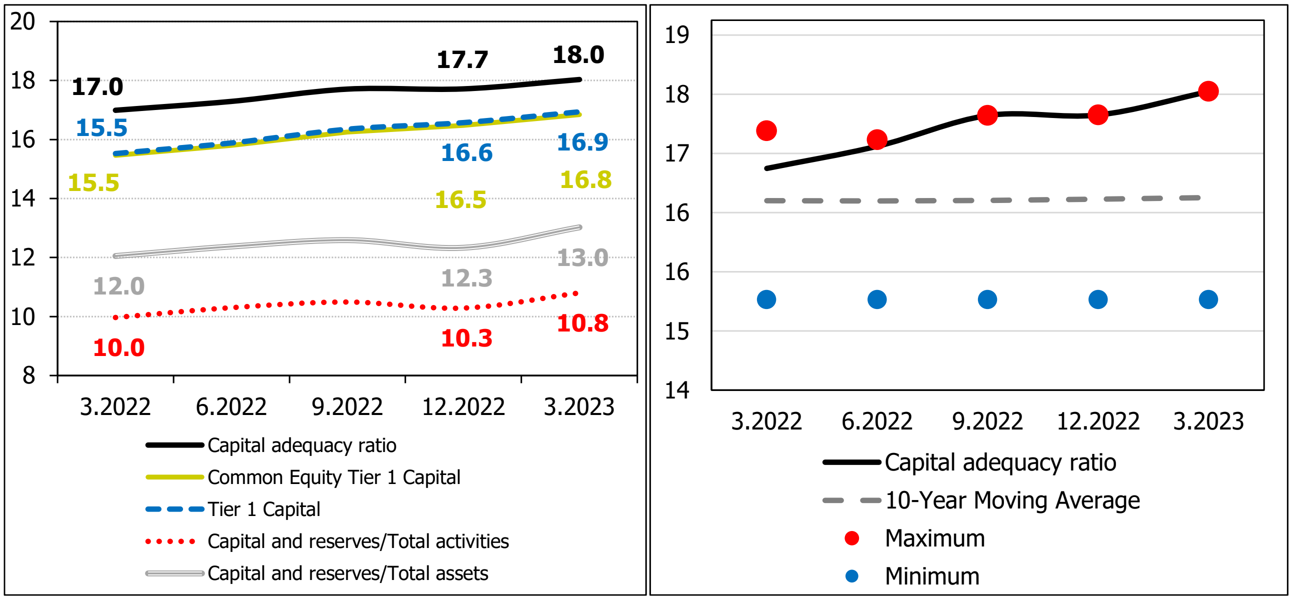
5.1. Solvency and capitalization of the banking system

The solvency and capitalization ratios of the banking system indicate further upward tendency in the first quarter of 2023. On a quarterly basis, the capital adequacy ratio increased by 0.3 percentage points, to the level of 18%, which is the maximum value registered in the past sixteen years. The Common Equity Tier 1 capital and Tier 1 capital ratios grew by 0.3 percentage points as well, and amounted to 16.8% and 16.9%, respectively. Growth was also registered in the shares of capital and reserves in total assets and total on-balance and off-balance sheet activities of banks, reaching 13% and 10.8%, respectively. The increase in the solvency and capitalization ratios of the banking system results from the solid growth of the capital positions and decline in banks' activities. The quarterly growth in capital and reserves accelerated reaching the level of 4.3%, while own funds grew by 1.4%, mostly due to banks' decisions to distribute profits to increase the general reserve fund and reinvest the last year' profits, as well as new issue of common shares by one medium-sized bank. On the other hand, the activities noted a slight decline (total on-balance and off-balance sheet activities and risk-weighted assets[41] decreased by 0.6% and 0.4%, respectively).

[41] The decline in the risk-weighted assets in the first quarter of 2023 stems from the decrease in claims from other trade companies included in the calculation with 100% risk weight, mainly due to collection of claims from companies by one large bank.

Chart 35 Indicators of solvency and capitalization of the Macedonian banking system (left) and capital adequacy ratio (right)

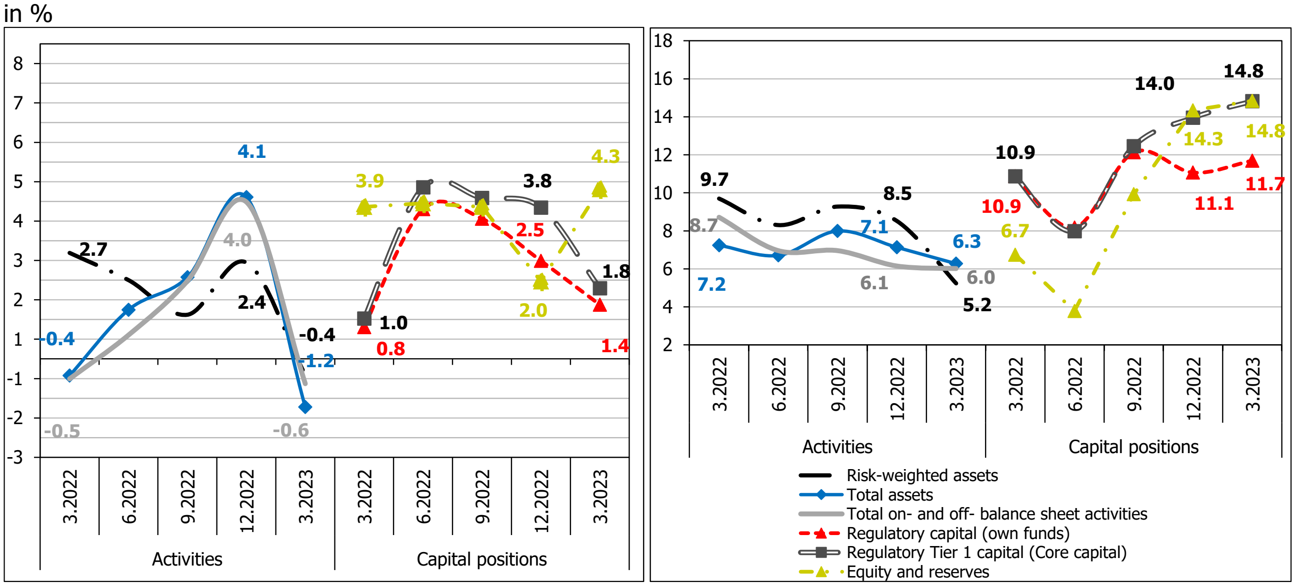
in %



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

Chart 36 Quarterly (left) and annual (right) growth rates of solvency indicator components

in %



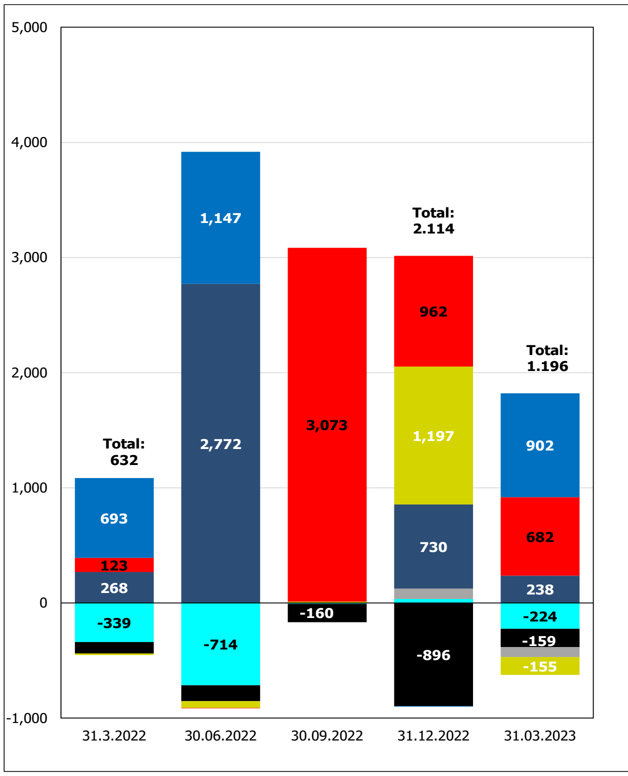
Source: National Bank, based on the data submitted by banks.

5.2. Quality of own funds of the banking system

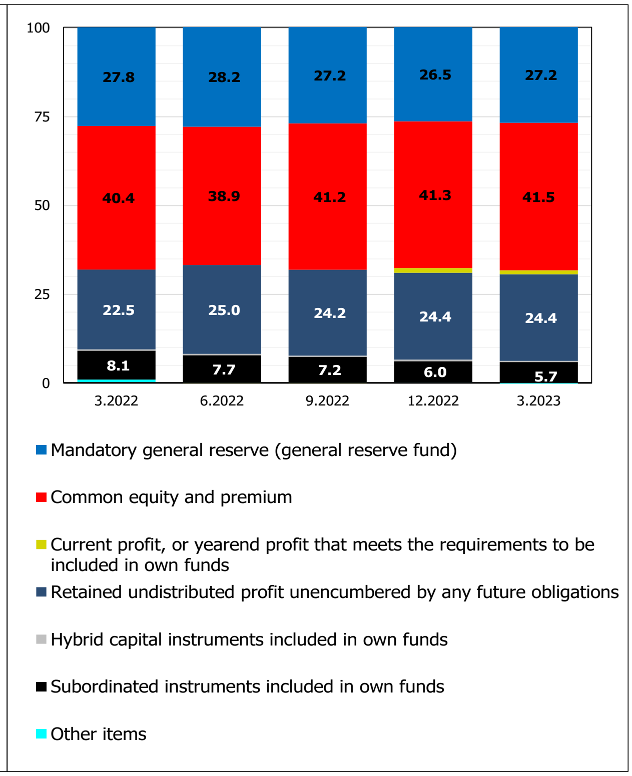
The banking system own high-quality capital positions, which provide it with satisfactory resilience to potential stressful scenarios. At the end of the first quarter of 2023, the growth in the highest quality layer of own funds continued (Common Equity Tier 1 capital) which prevails in total own funds with a share of 93.4%, while the Additional Tier 1 capital and Tier 2 capital accounted for 0.5% and 6.1% of own funds of the banking system.

Chart 37 Structure of quarterly growth of own funds (left) and the structure of the own funds (right)

in millions of denars



in %



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

In the first quarter of 2023, own funds of the banking system grew by Denar 1,196 million, or by 1.4%, but the growth is lower compared to previous quarter (2.5%). The largest contribution to own funds was made by last year' profits by one large and one small bank (Denar 1,140 million) which were used to increase the amount of mandatory general reserves and retained undistributed profits. The growth of own funds was supported by the new issue of common shares (Denar 682 million) by one medium-sized bank[42]. Also, the Common Equity Tier 1 capital of one small bank increased by transforming a part of a single shareholder's loan (hybrid instrument) to contribution in the bank[43]. Common shares are the most significant category in the structure of own funds with a share of 41.5%, with a significant share of the mandatory general reserve (general reserve fund) and the retained undistributed profits. A certain slight decrease was registered in subordinated instruments (due to reduction of the accounting value because of the entering the last five years to maturity), and the other changes were also with a negative sign (as a result of the changes in the fair value of the instruments held as available for sale and are appropriately reflected in revaluation reserves). For more details about the level of own funds by group of banks see annexes to this report.

[42] The Government adopted a decision to increase the initial capital of the Development Bank (DBNM). For more details visit p.8 on the following link.
[43] For more details visit p. 11 on the following link.

Analyzed by purpose of own funds, the amount of capital for covering risks slightly decreased by Denar 160 million, or by 0.4%, which reduced its share in total own assets of the banking system, (from 45.1% as of 31.12.2022 to 44.4% as of 31.3.2023). The quarterly decline of capital for covering risks almost entirely stems from the decrease in capital requirements for covering credit risk (by Denar 270 million)[44]. Moreover, the sharpest decline in total on-balance and off-balance sheet exposure of the banking system was registered by banks' activities that include 20% risk weight (by Denar 4,328 million, or by 12.2%) as a result of reduced claims from banks, as well as the banks' activities that include 0% risk weight (by Denar 3,075 million, or by 1.4%) due to decreased claims from government based on loans from one large bank. The largest increase was registered in positions with 35% risk weight (by Denar 1,932 million), mostly due to the increased claims covered with residential properties. The total amount of capital buffers[45] increased by Denar 260 million, or by around 1.3%, quarterly and at the end of the first quarter of 2023 accounted for 22.8% in total own funds of the banking system, as in the previous two quarters[46]. The amount of the capital supplement determined by the supervisory assessment registered a quarterly increase of Denar 207 million, or 1.1% and accounts for 21.1% of the total own funds of the banking system. Around 74% of the quarterly increase in own funds was used to increase free own funds, above the minimal necessary regulatory and supervisory requirements, which registered quarterly growth of Denar 889 million, or 9.4% and reached a share of 11.8% of total own assets.

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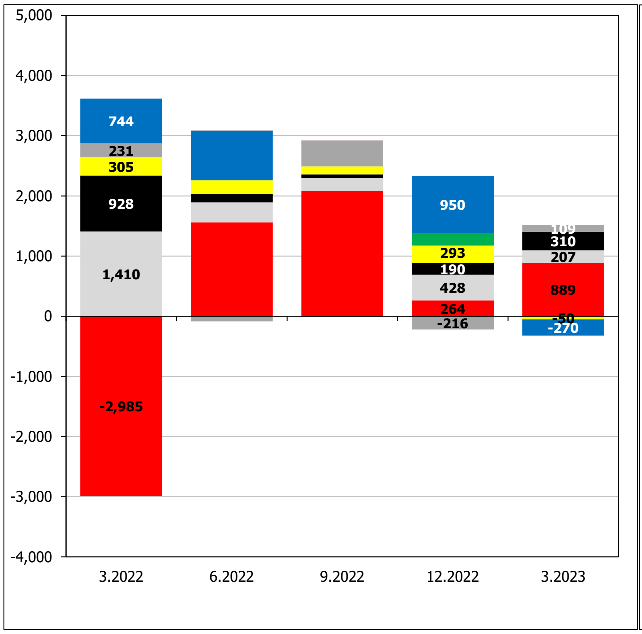
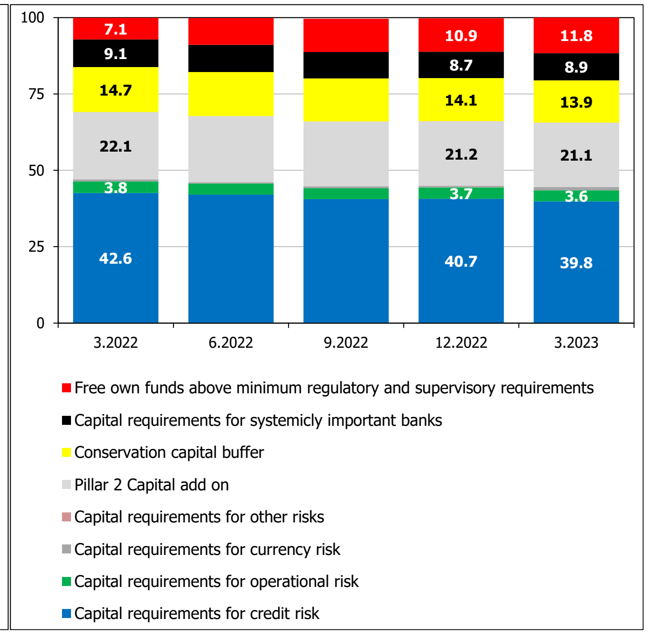
[44] The decrease in capital for covering credit risk is a result of the decrease in risk-weighted assets in the first quarter of 2023, in the structure of which a significant decline was registered in claims from other trade companies (Denar 3,118 million) and claims from banks (Denar 1,554 million). At the same time, the quarterly growth is mostly pronounced in portfolio of retail loans (Denar 596 million) and claims covered with residential (Denar 693 million) and commercial properties (Denar 268 million).

[45] Of four capital buffers specified in the Banking Law, in the first quarter of 2023, all banks were required to meet the capital conservation buffer of 2.5%, while six banks, identified as systemically important in the previous year, were required to harmonize with the appropriate capital buffer rate for systemically important banks (according to the latest calculations seven systemically important banks were identified which are required to meet the capital buffer rate for systemically important bank, not later than 31.3.2024). For more information, visit the following link. The countercyclical capital buffer rate for exposures in the country amounting to 0.5% shall apply as of as of 1 August 2023, while as of January 2024 this rate will amount to 0.75%. For more details, please visit the following link.

[46] Analytically observed, the growth of capital buffer of systemically important banks of Denar 310 million exceeded the decline in the capital conservation buffer of Denar 50 million.

Chart 38 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 %

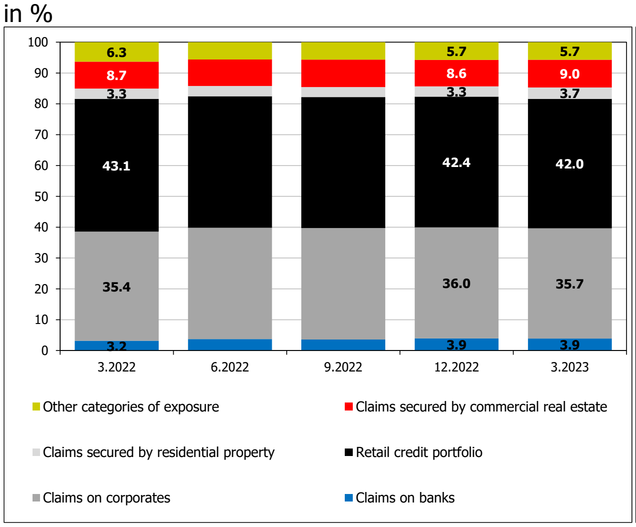


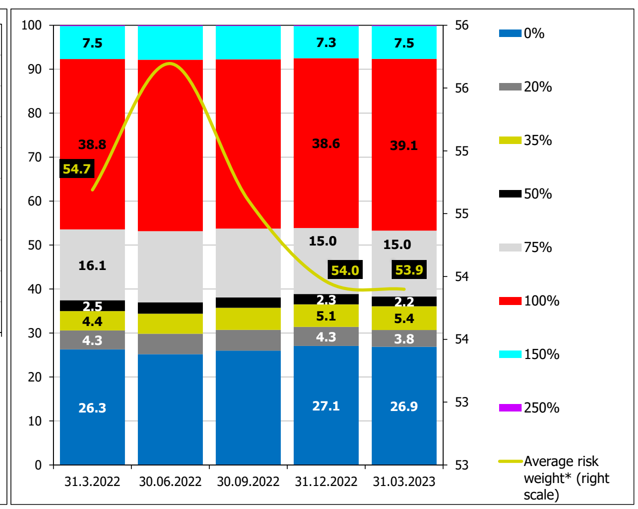


Source: National Bank, based on data submitted by banks.

The decline in risk-weighted assets which amounts to 0.8% (Denar 3.3 million) is higher compared to the decline in total activities (on-balance and off-balance sheet exposure) of the banking system and led to a slight decline (by 0.1 percentage points) of the average risk-weight to the level of 53.9%. For more details on the capital requirements for covering risks and on the capital adequacy ratio, by group of banks, see annexes to this Report.

Chart 31 Structure of capital requirements for covering credit risk, by category of exposure (left) and total on-balance and off-balance exposure, by risk weights (right).
in %



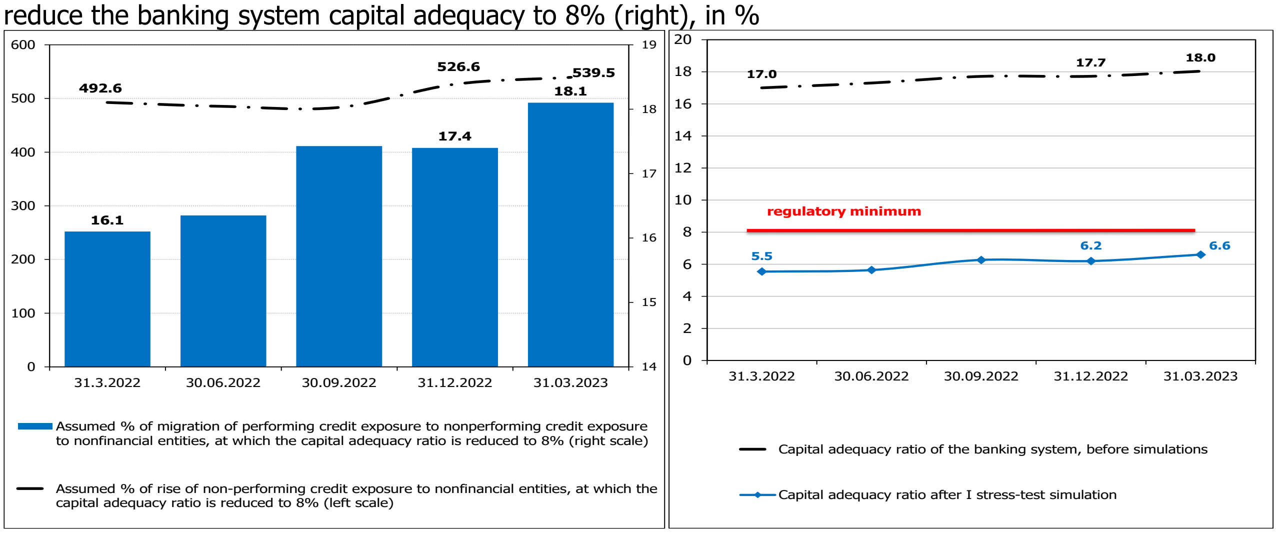


Source: National Bank, based on the data submitted by banks.
Note: The average risk weight is calculated as a ratio between risk-weighted assets and total banking system balance and off-balance sheet exposure.

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

The banking system shows a satisfactory level of resilience to the conducted regular simulated shocks, which assume extreme materialization of the credit risk (isolated, or in combination with materialization of the currency and/or the interest rate risk in the banking book). The results of the regular stress-testing in March improved compared with 31.12.2022, mostly due to the higher initial level of the capital adequacy ratio. The regular stress tests take into consideration only the simulation 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 purpose of this report we represent the results of **the simulation for simultaneous materialization of credit, currency and interest risk[47].** After shock, the capital adequacy ratio of the banking system falls below the requirement, to 6.6%, but the result is better compared to the previous quarterly date when the capital adequacy ratio reduced to 6.3%.
Hypothetical shocks on the part of the credit risk had the greatest impact on the solvency of the banking system. The stress testing results show that it takes growth of 539.5% of non-performing loan exposure, i.e. migration of 18.1% 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 third quarter of 2022, 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 quarterly decrease of 1.7%. For more details on the capital requirements for covering risks and on the capital adequacy ratio, by group of banks, see annexes to this Report.

Chart 32 Results of the stress test simulation (left) and deterioration of credit exposure quality that could reduce the banking system capital adequacy to 8% (right), in %



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

[47] 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;

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

1. Bank activities

The macroeconomic environment in which the banking system operates is still uncertain, due to global factors, coupled with still high, yet decreased inflation rates and tightening of financial conditions. The end of the first quarter of 2023 witnessed temporary turbulences on financial markets, driven by the developments in banking systems of the US and Switzerland. These events had limited effects given the prompt response from the policy makers, while the global financial system remained stable. The direct effects of the latest developments in the global financial markets on the Macedonian banking system are limited, given the implemented traditional business model by banks, the low exposure and external liabilities, as well as the comparatively low placements in securities.

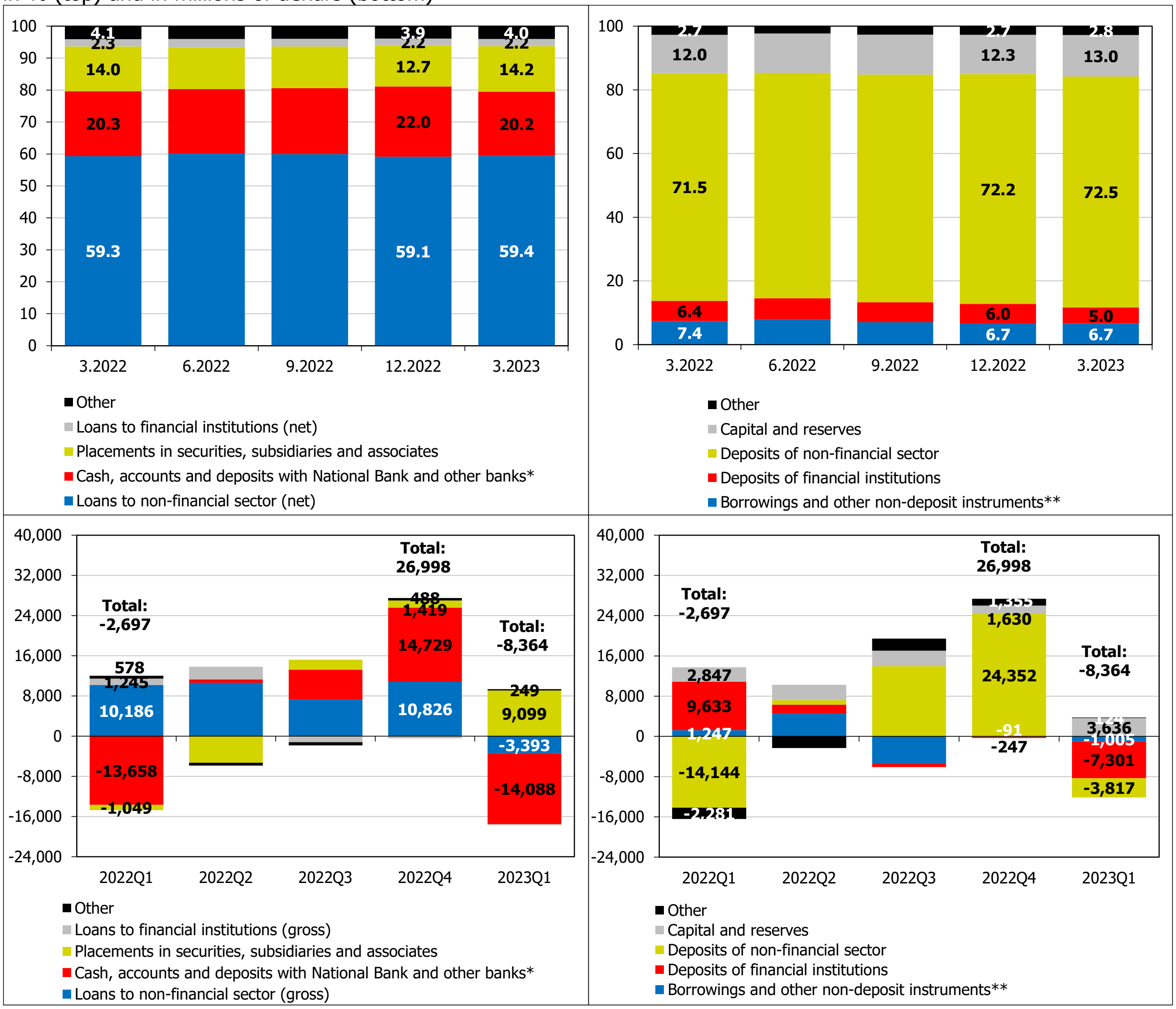
The assets of the banking system declined quarterly which is partly due to the seasonal factors in this part of the year. The quarterly decline in the sources of finance mostly results from the decreased deposits from financial non-resident institutions, as well as corporate deposits (amid growth in household deposits), which is partly a common seasonal factor in the first quarter of the year. Both denar and foreign currency deposits of non-financial entities registered a quarterly decline which was more pronounced in denar deposits. Observing maturity, the decrease in total deposits of non-financial entities was concentrated in sight deposits, while short-term and long-term time deposits increased on a quarterly basis, as a result of the higher yields and confidence in the banking system. Despite deposits, certain quarterly decline was registered in liabilities based on loans, while capital and reserves increased, mostly due to retained last year' profits.

Within the assets of the banking system, liquid assets recorded a quarterly decline, and the loans to non-financial entities decreased as well, due to the decline in corporate loans and repayment of a larger loan by the government. The decrease in corporate loans and the slower growth of household loans are also a common seasonal factor in this period of the year, while the tightened financial conditions and decreased demand for loans[48] are certain drivers of these movements. In the structure of liquid assets, the sharpest decline was registered in deposits with the National Bank and assets on accounts in foreign banks, which were partly used to increase placements in government securities.

The macroeconomic landscape in the first quarter of 2023 has not significantly changed compared to the previous period. The risks mainly related to the external environment remain and adequately affect the environment in which the banking system operates and consequently its activities and risk profile in the period ahead.

Chart 41 Structure of assets (top left) and liabilities (top right) and structure of the quarterly growth of assets (bottom left) and liabilities (bottom right) of the banking system in % (top) and in millions of denars (bottom)

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



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

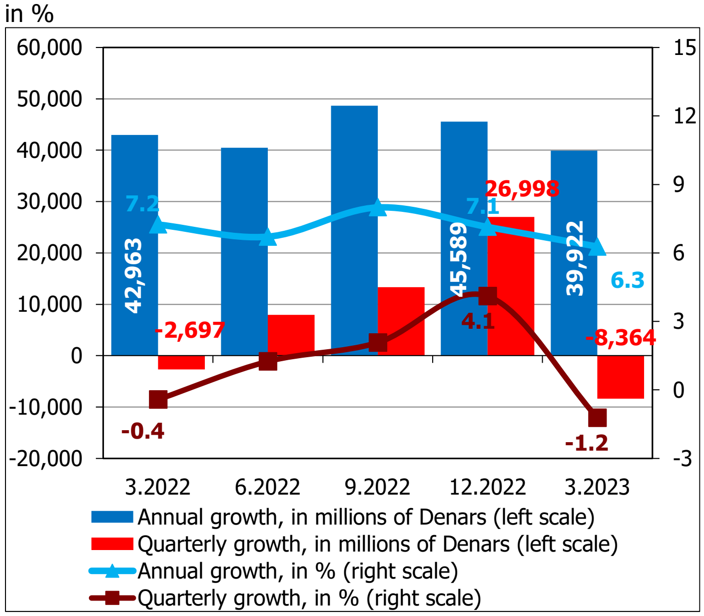
In the first quarter of 2023, the balance sheet of the banking system went down by Denar 8,364 million, or 1.2%. Such quarterly growth was mostly conditioned by the decrease in deposits of non-resident financial institutions (mostly banks' parent entities), as well as by non-financial entities (primarily enterprises), which is partly due to common seasonal factors in this period of the year[49]. Liabilities based on loans also declined, which mostly results from DBNM AD Skopje

Results from Bank Lending Surveys are as follows.

[49] The movements of banks' activities in the fourth and the first quarter of each year are usually influenced by the seasonal factors. Usually, in the fourth quarter of each year, the growth of activities of the banking system is strong and

repaying its borrowings to international creditors and simultaneous repaying of other domestic banks' borrowings towards DBNM AD Skopje. In contrast, capital and reserves increased, mostly due to retained profits from the previous year in part of the banks. The decline in sources of financing was mitigated by the decrease in banks' liquid assets, with the largest decline in deposits with the National Bank and assets on accounts in foreign banks, which, besides being used to repay liabilities, were also partly used to increase investments in government securities. Amid tightened financial conditions and decreased demand for loans[50], placements in loans to non-financial entities registered a quarterly decline in the amount similar to one large loan granted to the government, which was collected in March 2023. Moreover, in this part of the year, the increase in credit activity usually slows down or even decreases, due to seasonal factors.

Chart 42 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[51]

Bank's lending in the first quarter of 2023 declined amid tightening of the monetary policy due to dealing with high inflation rates. Loans to non-financial sector decreased by Denar 3,393 million, or by 0.8%, which is a first decrease on a quarterly basis after the third quarter of 2020. The decreased credit activity compared to the previous quarter contributed to significant slowdown in the annual growth rate, which amounted to 6.4% and is lower compared to the growth rates in the previous quarter and to the same period in the previous year when they amounted to 10.1%. The decline is entirely due to the decrease in corporate loans and other clients, while household loans recorded a moderately slower growth. Such movements primarily occur due to

accelerated, followed by a weaker and slower growth in the first quarter of the next year, or even a decline in the activities. The influence of the seasonal factors is seen in both, lending and deposit activities.

[50]Results from Bank Lending Surveys are as follows.

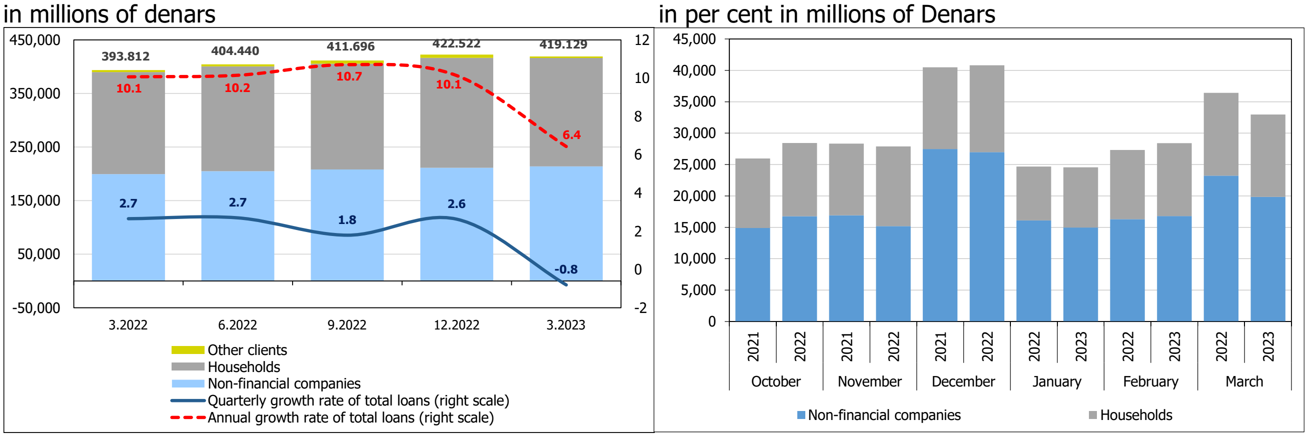
[51] Loans to non-financial entities include loans to resident and non-resident non-financial entities, including loans to private and public non-financial companies, central government, local government, non-profit institutions serving households (loans to other clients), sole proprietors and natural persons (loans to households).

three factors. Firstly, the Survey results of the credit activity in April 2023 indicate tightening of the overall credit standards and decrease in demand amid reduced pressures of the energy crisis. Secondly, direct contribution to the decrease in loans was made by the repayment of government's[52] loan to one commercial bank. Third, contribution to the growth was also made by the common seasonal effect in the first quarter of the year.

Analyzing by bank, increased credit activity compared to the previous quarter was registered in five of total twelve banks[53].

Chart 33 Stock flow of loans of non-financial entities (left) and newly approved loans, by sector (right)

in millions of denars in per cent in millions of Denars



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

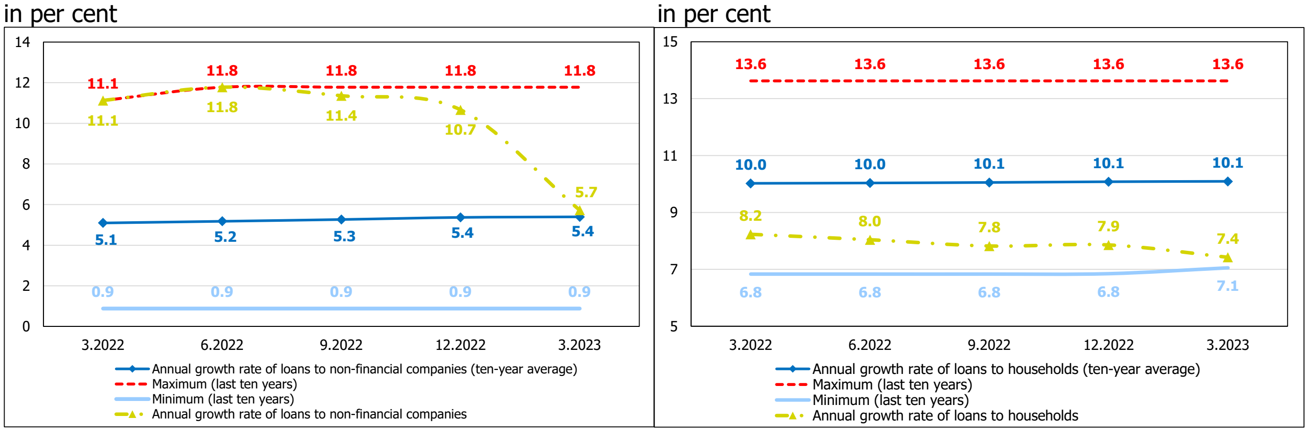
The volume of newly approved loans to non-financial corporations and households in the first quarter of 2023 decreased by 11.5% on a quarterly basis, while compared to the same period in the previous year declined by 2.8%. A quarterly decrease was also registered in both newly approved corporate (12.4%) and household (10.1%) loans. Analyzed annually, the new corporate loans declined (7.2%), while the new household loans increased (4.6%).

Loans to non-financial corporations in the first quarter of 2023 decreased amid lower corporate liquidity needs, as well as tightening of credit standards by banks. Corporate loans on quarterly basis decreased by Denar 2,708 million or by 1.3%, while annually the increase decelerated to 6.3%, following the double-digit growth rates throughout the previous year. Excluding the effect of net write-offs, the annual rate decreased to 5.7% and is slightly above the average ten-year growth. Of the activities with more significant share in the structure of loans, significant decline on a quarterly basis was registered in loans to clients in production of metals (5.6%), electricity supply (3.6%), wholesale and retail trade (2.8%), as well as food industry (1.6%). The decline reflects the decrease in liquidity requirements of enterprises due to the stabilization of the electricity price. Net tightened credit standards of banks also contributed to interest rate, non-interest income and collateral requirements, while a minor net tightening is also expected in the second quarter of 2023[54].

[52] The exposure to government is part of the category "other clients".
[53] The analysis does not include DBNM AD Skopje.
[54] Source: Bank Lending Survey in the first quarter 2023.

According to the size of non-financial corporations[55], loans to large enterprises have the largest share (33.7%), while the lowest share was registered in loans to microenterprises (7.0%), which is partly due to higher amounts of loans to larger enterprises, and partly to the banks' provisioning of lending to smaller enterprises[56]. Analyzed by client's main activity, the largest share was registered in companies in wholesale and retail (31.7%), followed by companies in industry (28.7%).

Chart 34 Ten-year moving average of annual growth rates of loans to non-financial corporations (left) and household loans (right)



Source: National Bank, based on the data submitted by banks.
* Note: Excluding the effect of all mandatory write-offs made in the period 1.1.2016 - 31.12.2021. Starting from December 2019, the data also contains collected compulsorily written-off loans.

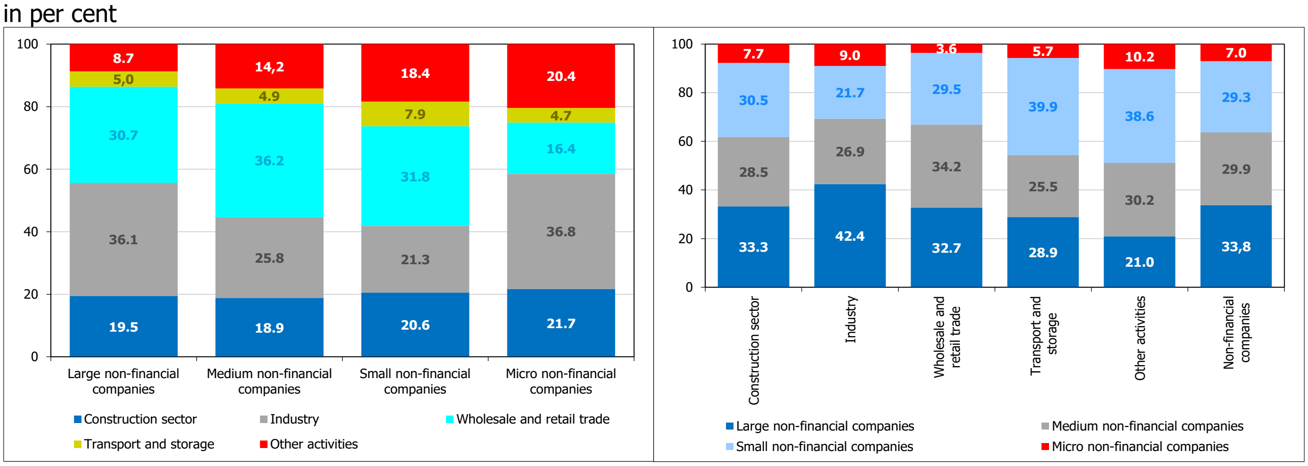
The growth of household loans in the first quarter of 2023 registered a moderate slowdown amid rising interest rates on consumer and housing loans. Household loans on quarterly basis grew by Denar 2,502 million, or 1.2%, which is a lower growth rate by 0.3 percentage points compared to the previous quarter and by 0.5 percentage points compared to same quarter in the previous year. On annual basis, the growth rate reduced to 7.2%. Excluding the effect of the net write-offs, the annual growth rate amounted to 7.4%, which is slightly above the minimum value in the last 10 years. Observing the type of credit, loans for purchasing residential and commercial properties registered a quarterly growth of 2.0%, while consumer loans grew by 0.7%. The decelerated growth reflects the net tightening of the credit standards for households, although their effect is significantly weaker than the previous banks' expectations, as well as the net decrease in demand for loans. The largest tightening was registered in terms of interest rates on consumer and housing loans. The second quarter of 2023 expects slight net easing of the credit standards for household loans.[57]

The household sector continues to dominate the total credit portfolios of banks with 51.0%, which is an increase of 1.0 percentage points compared to the previous quarter. Regarding credit

[55] 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.
[56] 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 unwillingness of enterprises to disclose and share business information. (For more information see p. 5 in Macedonia 2025 (2020). *Barriers for access to finance for MSMEs in North Macedonia: Stock of existing data and knowledge*.
[57] Source: Bank Lending Survey in the first quarter 2023.

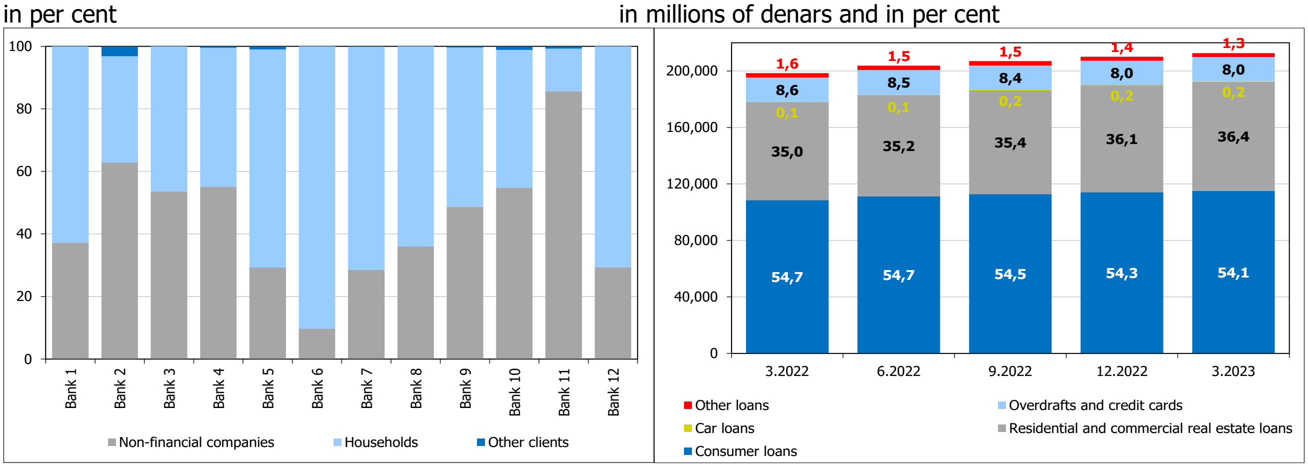
products, loans for financing non-identified consumption[58] account for 63.5% in total loans to natural entities, which is by 0.3 percentage points less compared to the previous quarter, thus continuing the long-term trend of gradual decrease at the expense of the growth in the share of housing loans.

Chart 35 Structure of loans to non-financial companies by individual activities (top) and according to the size of the company (bottom)
in per cent



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

Chart 36 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 denars and in per cent



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

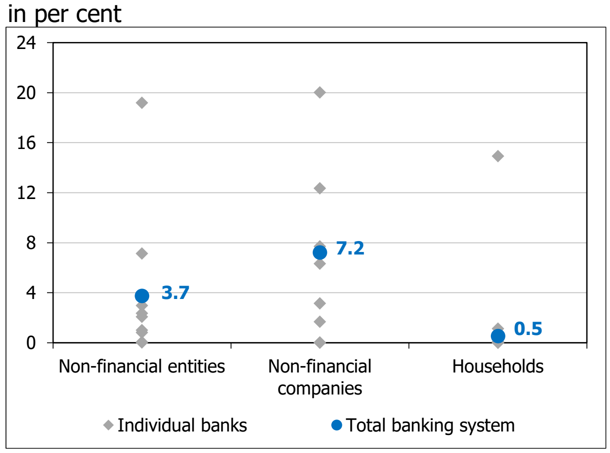
The green lending[59] further increased, yet its share in the banks' loan portfolio remains low. As of 31.3.2023, the total green loans to non-financial sector increased by Denar 326 million or by 2.1%, compared to 31.12.2022, thus the share of these loans in total loans to non-

58 Loans for financing non-identified consumption include consumer loans, transaction account and credit card overdrafts and other loans.

59 The term *green lending* refers to the manner of financing which allows the borrower to invest exclusively in projects with significant positive environmental impact and in projects that reduce the negative effects from climate changes. The green lending aims to (i) improve the energy efficiency of the households and the corporate sector; (ii) support the investments in green technologies, materials and solutions; (iii) support investments in renewable energy sources, control and prevention of pollution, protection of the environment, mitigation of the risks from climate changes, etc..

financial sector grew by 3.7%[60]. The growth is driven by the green corporate loans which increased by 3.7%, while the green household loans decreased by 14.6%.

Chart 47 Share of green loans to total loans to non-financial entities and by sector, by bank



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

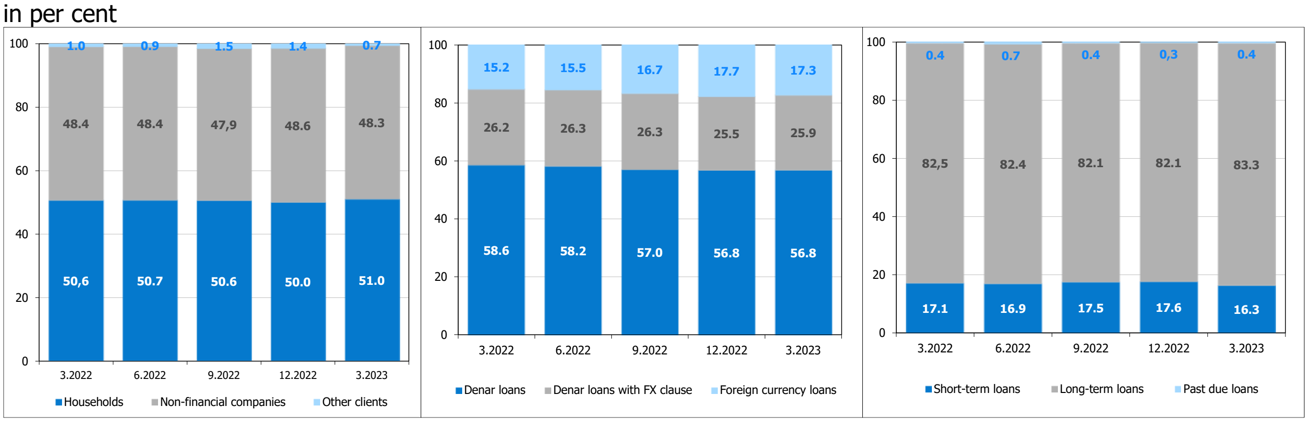
Analyzing currency structure, the decreased lending activity in the first quarter of 2023 is due to the decline in both denar and foreign currency loans. Denar loans decrease quarterly by Denar 1,690 million, or by 0.7%[61], while loans with currency component decreased by Denar 1,703 m million, or by 0.9%[62]. The share of denar loans to total loans amounted to 56.8% and remains unchanged compared to the previous quarter, with a decrease relative to the same quarter in the previous year by 1.8 percentage points.

[60] Two banks out of twelve analyzed banks, as of 31.3.2023 have no green loans in the portfolio. In the banks that have approved such loans, the share of green loans in total loans ranges from 0.005% to 19.2%. Observed by sector, the share of green loans in total loans by individual banks is between 0.0% and 20.0% in corporate loans, i.e. between 0.0% and 14.9% in household loans.

[61] The decline in denar loans to non-financial sector on a quarterly basis is due to the decrease in corporate loans by Denar 2,351 million, or by 1.9% and other clients by Denar 54 million or by 3.9%, while the decline is mitigated by the increase in household loans by Denar 715 million, or by 0.6%.

[62] The decline in loans with currency component to non-financial sector on a quarterly basis results from the decrease in foreign currency loans by Denar 2,533 million, or by 3.4%, while denar loans with currency clause grew by Denar 830 million, or by 0.8%. The decrease in foreign currency loans is solely due to the decline in loans to other clients (by Denar 3,092 million, or by 83.3%), which reflects the government repayment of loan to one bank, while the growth of household loans (by Denar 417 million, or by 3.0%) and corporate loans (by Denar 143 million, or by 0.2%). had a mitigating effect. The increase in denar loans with currency clause is solely due to the growth in household loans (by Denar 1,371 million, or by 1.7%), and decline in corporate loans (by Denar 500 million, or by 1.9%), and other clients (by Denar 41 million, or by 4.7%).

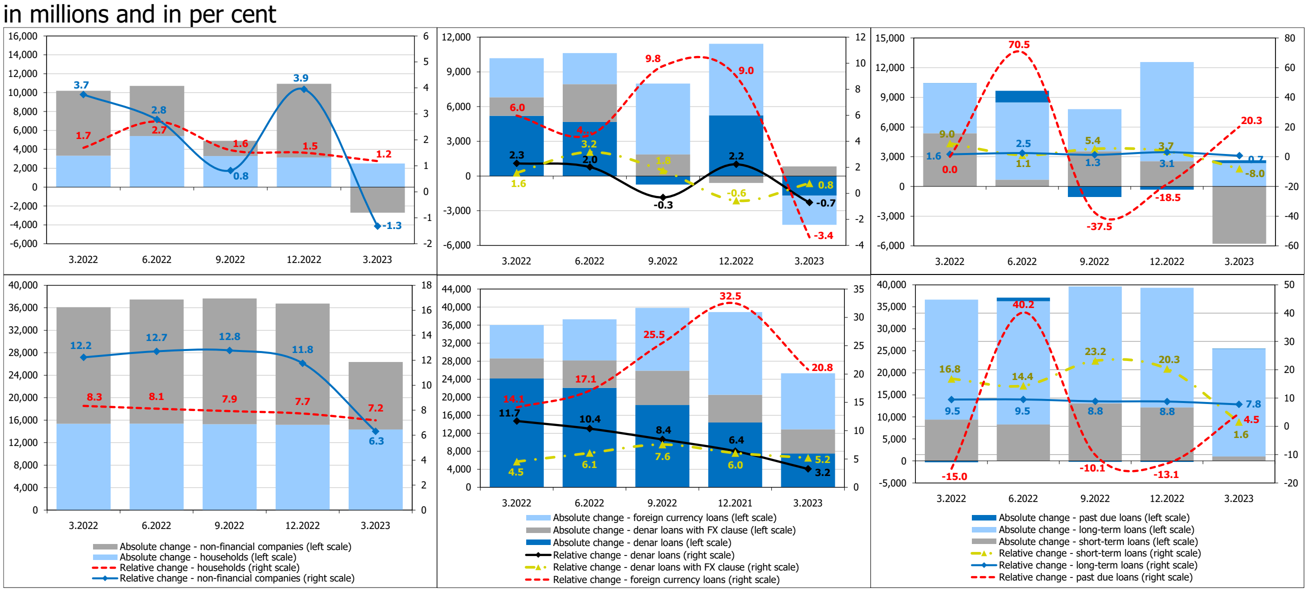
Chart 37 Structure of total loans, by sector (left) and currency (middle), and structure of regular loans, by maturity (right)
in per cent



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

Observing maturity[63], the reduced credit activity of banks as of 31.3.2023 is entirely due to the decrease in short-term lending, with a contribution of the slower growth in long-term lending. Short-term loans, compared to 31.12.2022, decreased by Denar 5,785 million, or 8.0%[64], while long-term loans increased quarterly by Denar 2,358 million, or 0.7%. Long-term loans still dominate the maturity structure of loans with 83.3%, which is an increase of 1.2 percentage points compared to the previous quarter. The due loans increased quarterly (by Denar 293.9 million, or 20.3%), but they account for only 0.4% in total regular loans, thus their changes cause large oscillations.

Chart 49 Quarterly (top) and annual (bottom) growth of loans, by sector, currency and maturity
in millions and in per cent



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

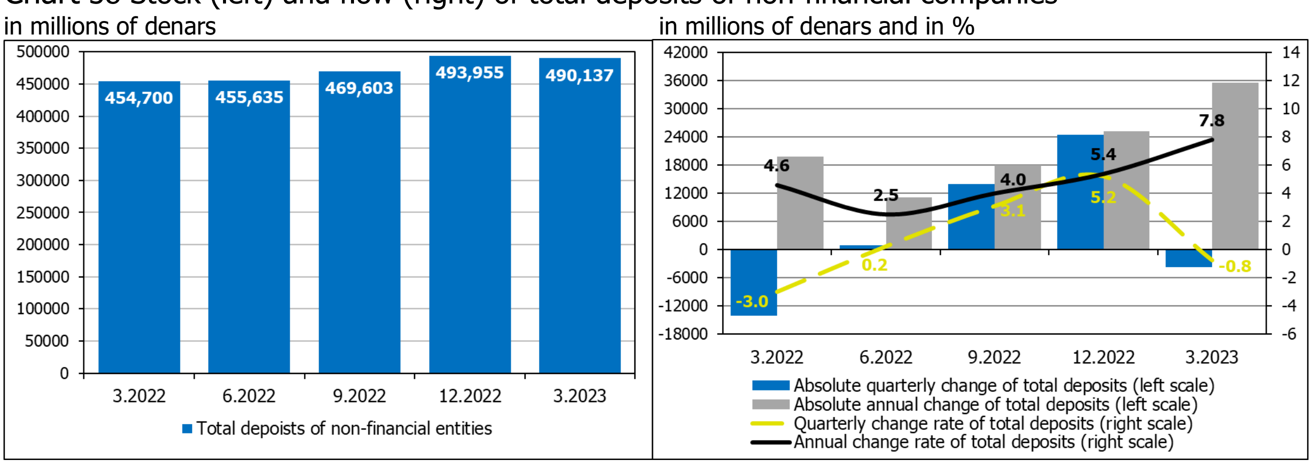
63 The analysis of maturity structure excludes non-performing loans.
64 The decrease in short-term loans almost entirely reflects the repaid government loan to one commercial bank in a nominal amount of Euro 50 million.

1.2. Deposits of non-financial companies

In the first quarter of 2023, deposits declined quarterly by Denar 3,817 million, or 0.8%. Annually, total deposit base of banks increased by Denar 35,437 million, or by 7.8%, which is a faster growth compared to the annual growth in 2022 (5.4%)**. The decrease in deposits in the first three months of 2023 was largely due to the decline in demand deposits from non-financial companies mainly in denars, which is mainly a result of the common seasonal effects in this period of the year.** Bank-by-bank analysis shows that the quarterly decrease of deposits resulted from three large banks, while other banks registered deposit growth.

From a sectorial point of view, the decline in deposits was conditioned by **deposits to non-financial companies**, which decreased quarterly by Denar 8,897 million, or by 6.0% (as of 31.12.2022, the deposits from this sector registered a quarterly growth of Denar 13,098 million, or 9.7%). **Household deposits,** which are traditionally the most significant depositors to the Macedonian banking system (with a share of 67.7% in total deposits), continue to grow (by Denar 3,531 million, or 1.1%), yet at a slower pace compared to the previous quarter (3.4%). However, the annual growth of household deposits accelerated (8.8% as of 31.3.2023, as opposed to 3.9% as of 31.3.2022 and 6.3% as of 31.12.2022).

Chart 38 Stock (left) and flow (right) of total deposits of non-financial companies



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

Observing currency, the quarterly decrease in deposits was mainly conditioned by the decline in denar deposits, which decreased by Denar 3,615 million, or 1.4% (as of 31.12.2023, denar deposits increased by Denar 15,199 million, or 6.1% quarterly)[65]. The quarterly decrease in denar deposits mostly results from denar demand deposits to non-financial companies, which decreased by Denar 7,019 million, or 8.1%, while household denar deposits increased. Negative quarterly growth was recorded in foreign currency deposits, albeit their decline has less impact on the decrease in total deposits of the banking sector. They dropped by Denar 223 million, or 0.1% and the decline arises from the corporate sector whose deposits decreased by Denar 2,801 million (or 5.8%), which is slightly higher compared to the growth in foreign currency deposits of households

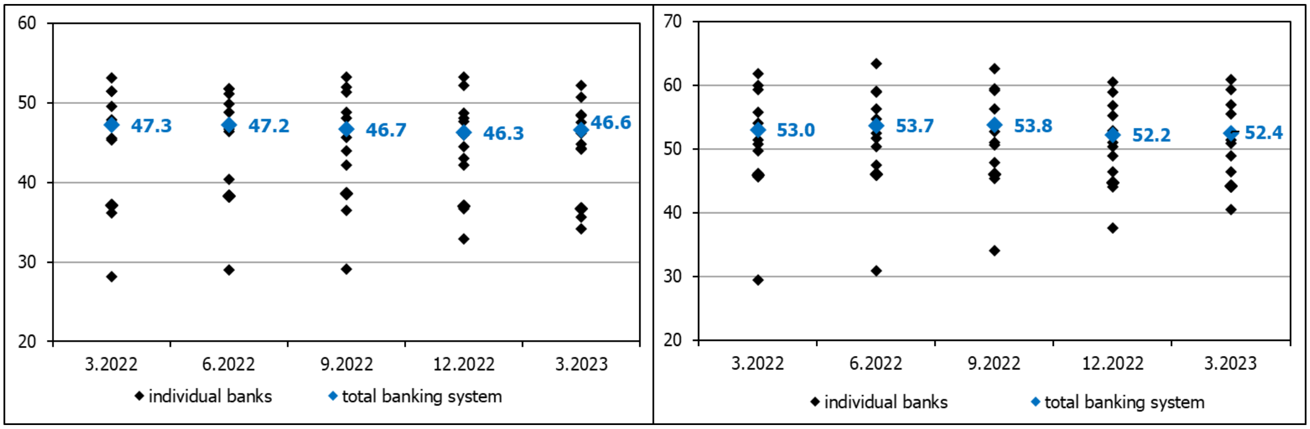
[65] As opposed to the quarterly decline in denar deposits in the first three months of 2023, annually they grew by Denar 22,055 million, or 9.2%, which was mostly due to the increase in demand deposits (with a structural share of over 80%), mostly from households (with a structural share of 62%).

which amounted to Denar 2,545 million (or 1.5%). Only denar deposits with currency clause, as a minimally represented deposit product, registered a quarterly growth.

Denar deposits continue to prevail in the currency structure of deposits (share of 53.3%), although their share in total deposit base quarterly decreased by 0.3 percentage points. Thus, the share of foreign currency deposits increased by 0.3 percentage points to the level of 46.6%.

Chart 39 Share of total foreign currency deposits in total deposits of the banking system (left) and of the foreign currency household deposits in total household deposits (right)

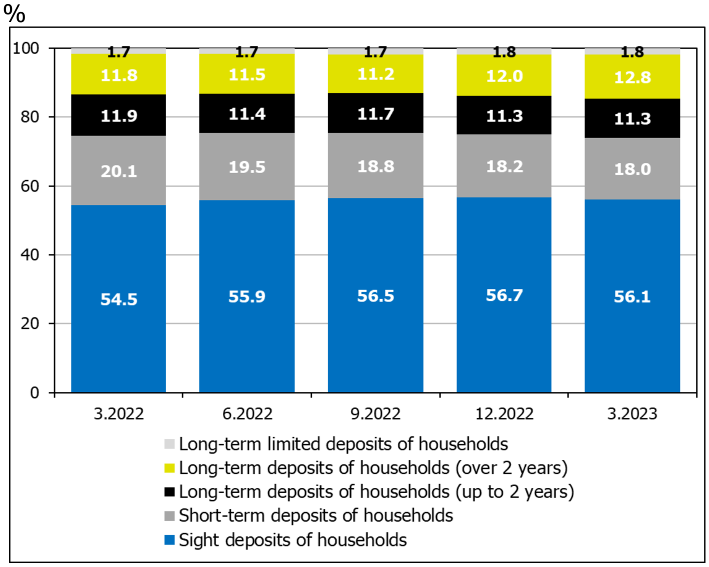
in %



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

Chart 40 Maturity structure of household deposits

in %



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

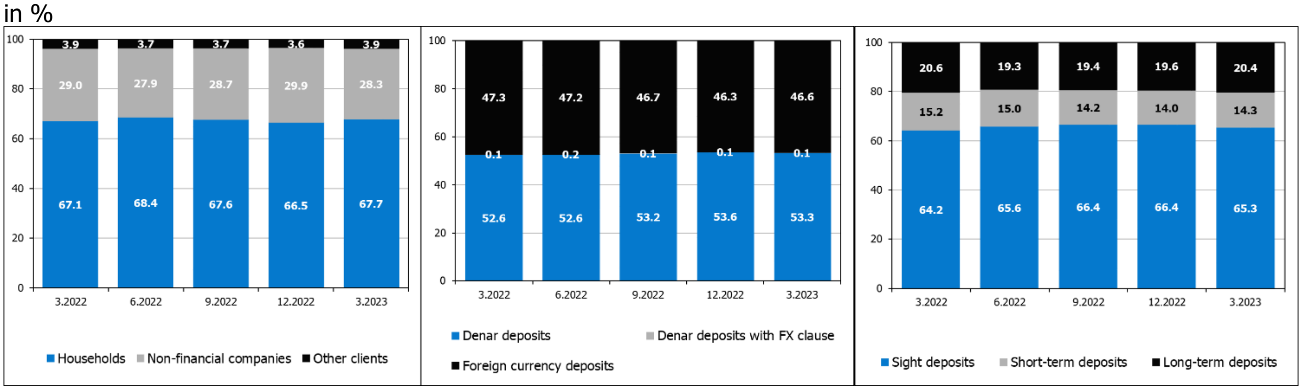
Analyzing maturity, demand deposits decreased by Denar 7,946 million, or 2.4% and entirely conditioned the quarterly decline in total deposits in the banking sector. Time deposits registered favorable changes, primarily in the long run[66], which in the first quarter of 2023

[66] The quarterly increase in long-term deposits as of 31.3.2023, arises from both foreign currency (by Denar 1,922 million, or 4.4%) and denar (by Denar 1,789 million, or 4.6%) long-term deposits of the household sector.

increased by 3.2%, as opposed to the decrease of 3% in the same period of the previous year. The growth of long-term time deposits was almost fully concentrated in household deposits. Short-term deposits also increased by Denar 1,014 million, or 1, 5%[67]. The favorable movements of time deposits occur amid higher interest rates and maintained confidence in the banking system.
Demand deposits are till dominant in the total deposit base (65.3% at the end of the first quarter of 2023).

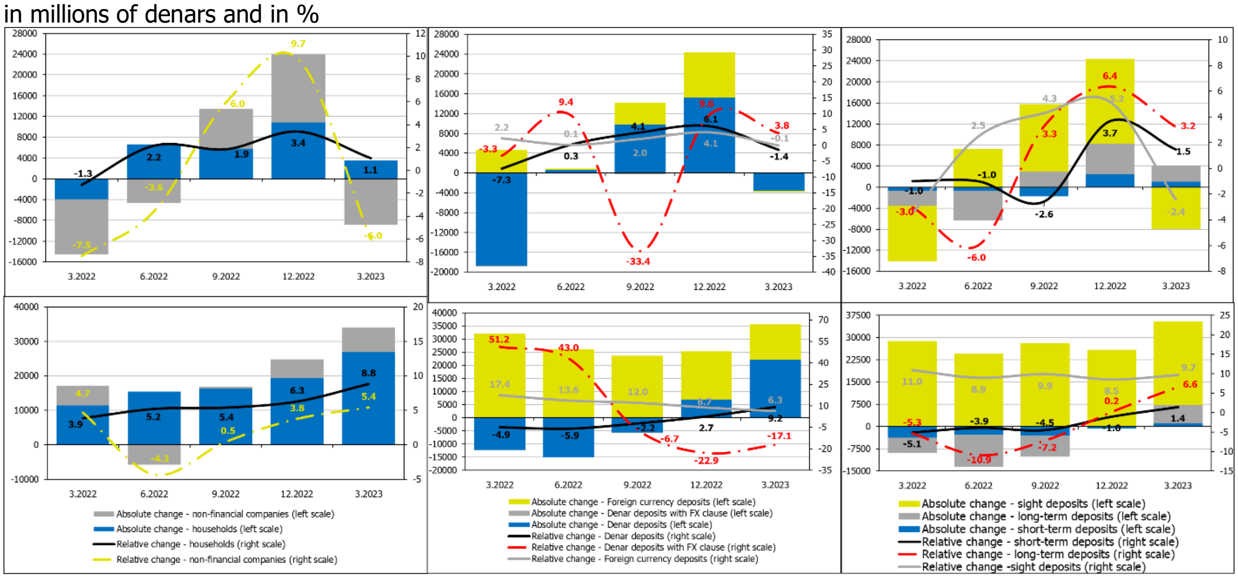
Demand deposits prevail in the maturity structure of household deposits (with a share of 56.1% as of 31.3.2023), yet it is lower compared to the previous quarter (56.7%). On the other hand, the share of long-term deposits placed over two years increased (from 12.0 as of 31.12.2022, to 12.8 as of 31.3.2023).

Chart 41 Structure of total deposits, by sector (left), currency (middle) and maturity (right)
in %



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

Chart 42 Quarterly (top) and annual (bottom) deposit growth by sector (left), currency (middle) and maturity (right)
in millions of denars and in %



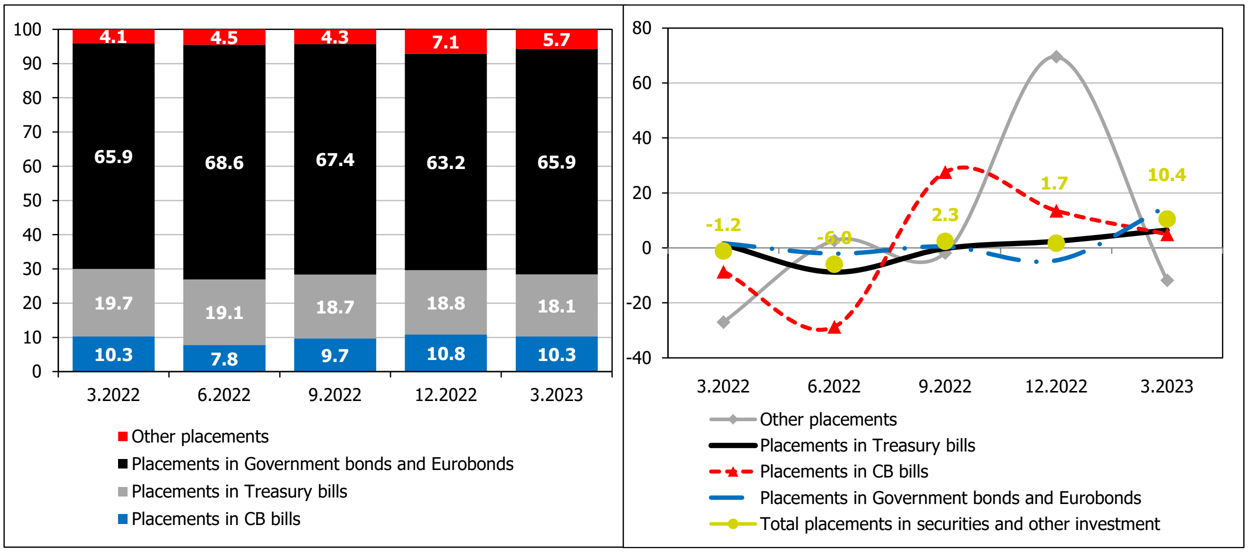
Source: National Bank, based on the data submitted by banks.

[67] The increase in short-term deposits mostly stems from the increase in denar corporate deposits (Denar 689 million), foreign currency deposits of non-residents (Denar 559 million) and government denar deposits (Denar 304 million.

1.3. Other activities

Banks' placements in securities, subsidiaries and associate[68] significantly increased on a quarterly basis, by Denar 9,099 million (or 10.4%), thus their share in total banks' assets increased to 14.2% (12.7% at the end of the previous quarter). The largest quarterly growth was registered in placements in government bonds[69] of Denar 8,312 million, or 15.1%. Slower increase was noted in banks' investments in the treasury bills (6.4%) and CB bills (4.9%)[70]. Such developments contributed to the increase of the share of investment in government bonds in total placements in debt securities and other banks' investment to the level of 65.9% as of 31.3.2023 (63.2% as of 31.12.2022) at the expense of the moderate decrease in the share of investments in treasury bills and CB bills.

Chart 55 Structure (left) and quarterly rate (right) of investments in securities, subsidiaries and associates
in %



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

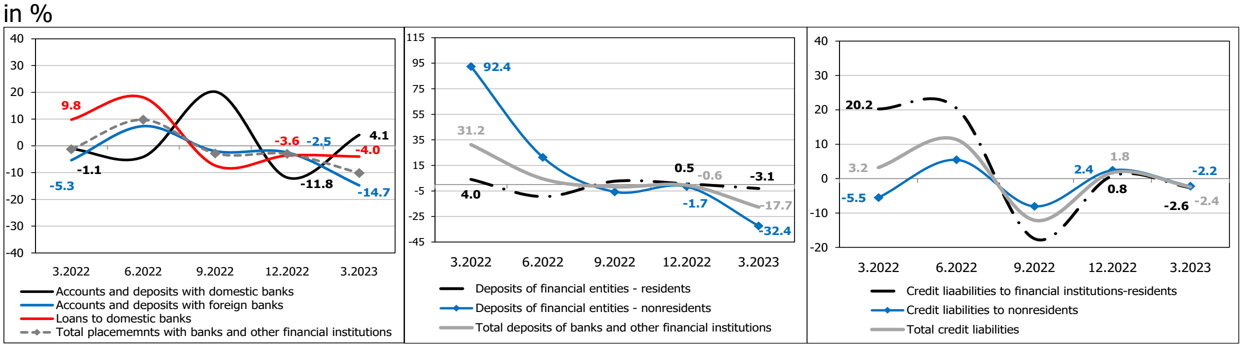
Placements with banks and other financial institutions (account for 7% of the total assets of the banking system) in the first quarter of 2023 decreased by Denar 5,337 million, or 10.2%. Such decrease was mostly due to the decrease in banks' funds on corresponding accounts in foreign banks by Denar 5,137 million, or 14.7% (amid simultaneous

[68] The analyses of these investments are based on their net book value.
[69]In the first quarter of 2023, interest rates on government securities, set by the Ministry of Finance, increased. After a longer period of time, two-year government bonds without currency clause were issued at an interest rate of 5.25% (they were last issued in the fourth quarter of 2020 at an interest rate of 0.9%).
[70]The offered amount of CB bills remained almost the same, at Denar 10,000 million, while the demand registered a certain growth. During the first quarter of 2023, and in the previous quarters, the National Bank continued to increase the interest rates, whereby the interest rate on CB bills increased by 0.75 percentage points to the level of 5.50%.

increase in time deposits abroad[71]) as well as due to the decline in loans to domestic banks (by Denar 584 million, or 4%[72]).

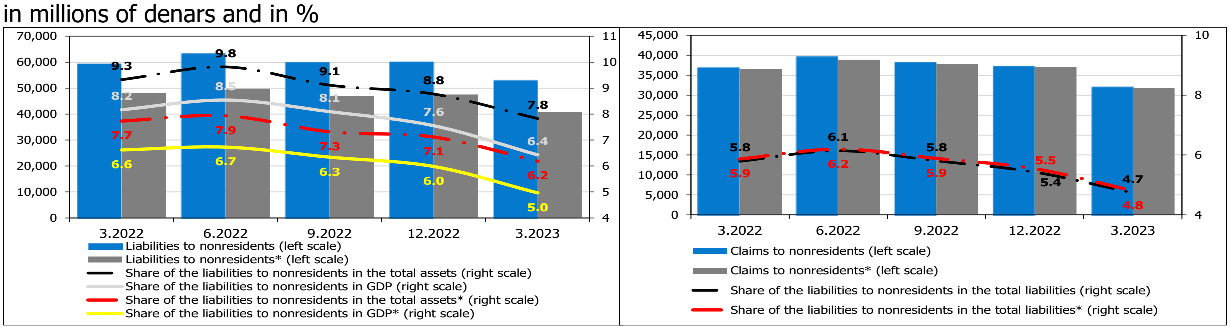
Total **loan liabilities of banks** decreased by Denar 940 million, or 2.4% (which accounted for 5.7% of total assets of the banking system), which results from the decreased loan liabilities to non-resident financial institutions (around 80% of the decline in these loans is with the DBNM AD Skopje) and decreased liabilities based on loans with domestic banks in maturity blocks from two to five years and over 5 years[73]. **Deposits from banks and other financial institutions are** insignificant source of banks' financing, accounting for 5% of total liabilities of the banking system The downward quarterly correction of deposits of banks and other financial institutions of Denar 7,301 million (17.7%) almost entirely results from the decline in deposits of non-resident financial institutions of Denar 6,658 million, or 32.4%, with the sharpest decline registered in short-term deposits up to one month (a decrease of Denar 4,095 million) and restricted foreign currency deposits of non-resident financial corporations up to one year (a decrease of Denar 3,078 million).

Chart 43 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.

Chart 57 Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %

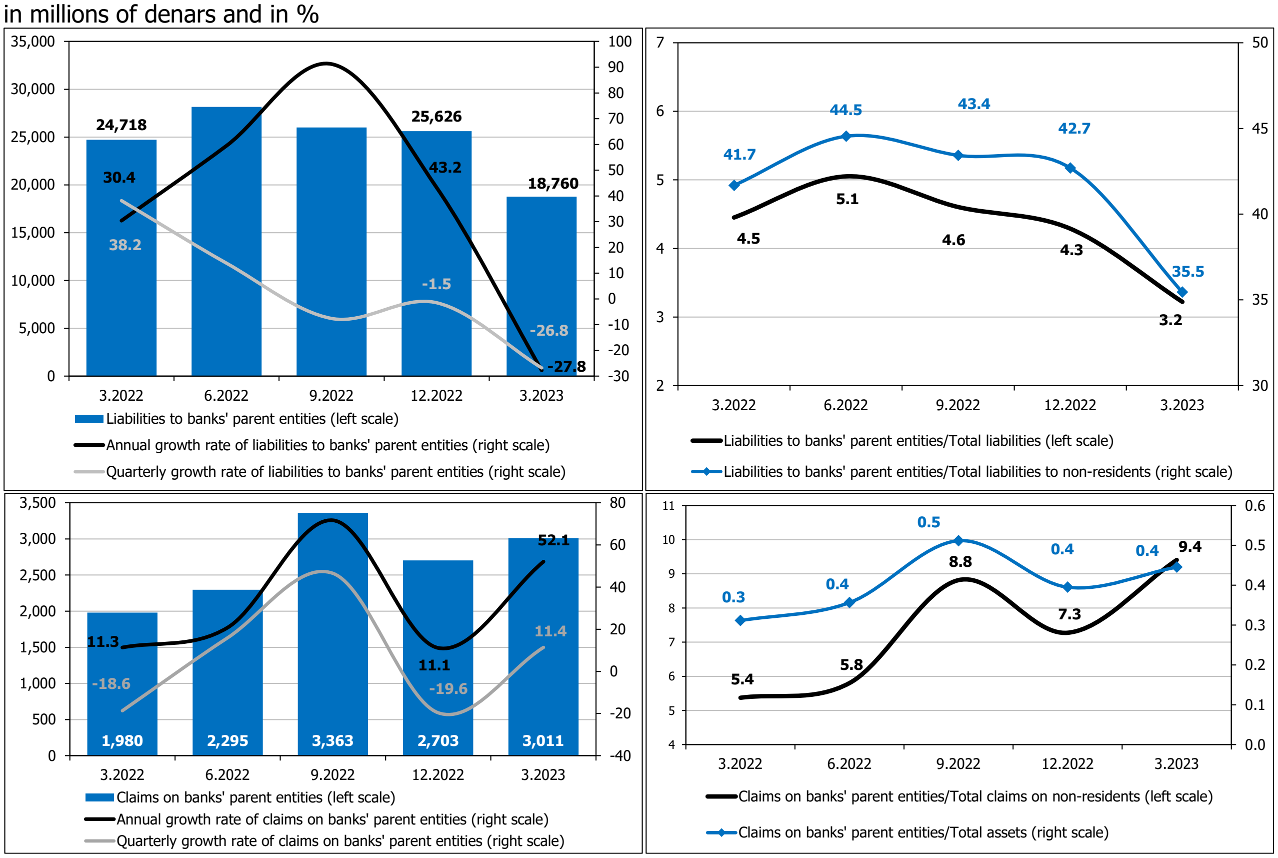


Source: National Bank, based on the data submitted by banks.
*Without the share of DBNM AD Skopje

[71]Moreover, the growth in time deposits abroad up to one month amounted to Denar 2,548 million, time deposits from three month to one year to Denar 1,304 million and time deposits over two years to Denar 1.5 million. Overnight deposits dropped by Denar 1,452 million, time deposits from one to three months to Denar 1,368 million and time deposits from one to two years to Denar 0.5 million.
[72] The decrease in this quarter was mostly due to the decrease in long-term banks' loans in foreign currency with maturity of over two years with the DBNM.
[73]The quarterly decrease in liabilities based on loans to domestic banks was due to the decline in liabilities based on foreign currency loans over five years with one large bank (by Denar 1,455 million) from two to five years with one medium-sized bank (by Denar 285 million).

The scope of banking system activities with non-residents is constantly very limited, but there are deviations at a bank level. As usual, as of 31.3.2023, banks owe[74] more than they claim on non-residents, with liabilities recording sharper decline compared to the decline in claims on non-residents. Domestic banks' liabilities to non-residents went down quarterly by Denar 7,107 million, or 11.8%, and their share in total banking system liabilities dropped to 7.8%[75] at the end of the first quarter of 2023 (8.8% as at 31.12.2022). Such quarterly decrease was mostly due to decreased liabilities based on short-term foreign currency deposits to non-resident financial institution and the decrease in restricted foreign currency deposits to non-resident financial institutions up to one year. Similarly, banks' claims on non-residents dropped quarterly by denar 5,138 million, or 13.8%, due to the decrease in funds on foreign bank accounts.

Chart 58 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.

Bank liabilities to parent entities dropped and do not represent a significant source of financing domestic banks' activities, although there are bank-to-bank differences. In the first quarter of 2023, banks' liabilities to their parent entities decreased by Denar 6,866 million (or 26.8%), which was mostly due to the decrease in short-term deposits of financial entities. Consequently, the share of banks' liabilities to parent entities (including

[74] As of 31.3.2022, six of thirteen banks owe more than they claim on non-residents.
[75] If DBNM AD Skopje is excluded from the analysis, the share of liabilities to non-residents in total liabilities is 6.2%.

subordinated liabilities and hybrid capital instruments) in total liabilities of the domestic banking system, and in liabilities to non-residents decreased to 3.2% and 35.5%[76], respectively. Claims on parent entities registered a quarterly growth of Denar 308 million, or 11.4%, thus the share in total asset in this quarter amounted to 0.4% again (0.4% as of 31.12.2022) while their share in claims on non-residents increased to 9.4% (7.3% as of 31.12.2022).

[76]As of 31.12.2022, these contributions equaled 4.3% and 42.7%, respectively.

1. Profitability

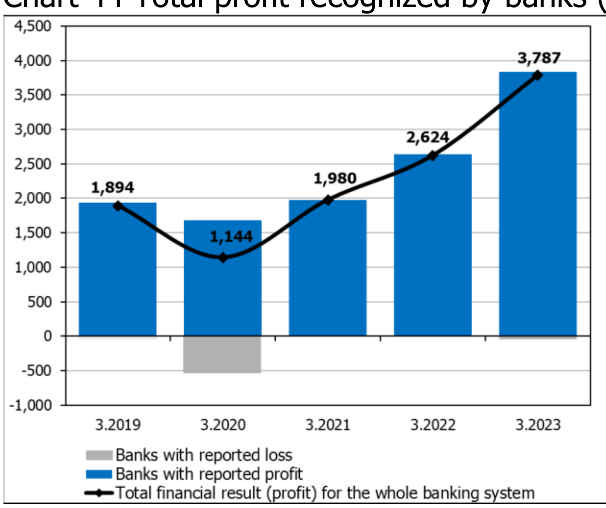
In the first quarter of 2023, the domestic banking system reported an accelerated profit growth compared to the same period last year. Amid growth in interest rates and interest bearing assets, the higher financial result was conditioned by the increased net interest income, the growth of which was supported by the interest income from almost all sectors. A slight contribution to the profit growth was made by higher net commission income. The expenditures grew on all grounds. The accelerated profit growth positively affected the basic operational profitability and efficiency ratios of the banking system.

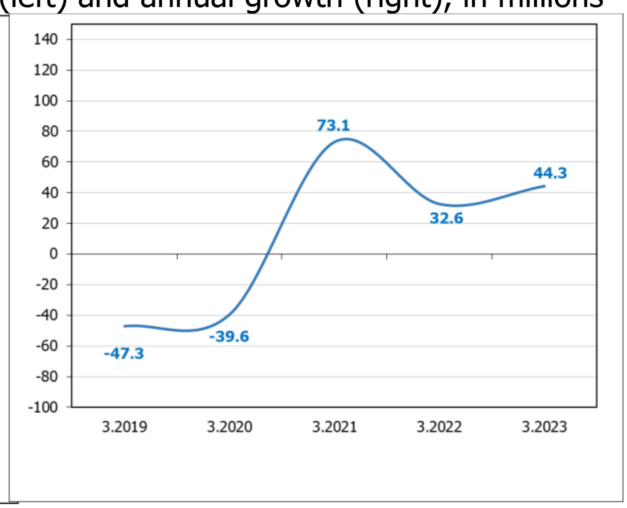
Interest rates on both loans and deposits increased in the first quarter of 2023. Within new activities, the interest rate growth is most pronounced in newly accepted deposits, in both denar and foreign currency.

2.1. Banking system profitability and efficiency ratios

In the first quarter of 2023, the banking system generated profit of Denar 3,787 million, which is higher by Denar 1,162 million, or 44.3% compared to the same period in the previous year, when the profit was significantly higher as well (by 32.6% or by Denar 645 million), relative to the first quarter of 2021. The higher profit was derived from the increased net interest income (net interest income increased by Denar 1,716 million, or 42.9%) and to a lesser extent from the growth in net fee and commission income (increase of Denar 123 million, or 8.6%). In contrast, the expenditures registered a growth on all grounds, which is higher compared to the same period in the last year in all expenditure categories, except employee expenses which grew slowly.

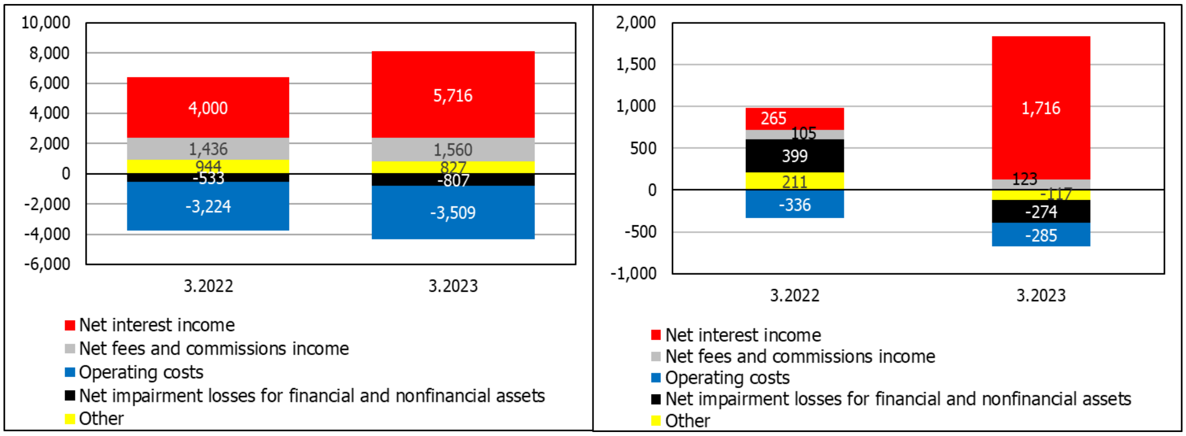
Chart 44 Total profit recognized by banks (left) and annual growth (right), in millions





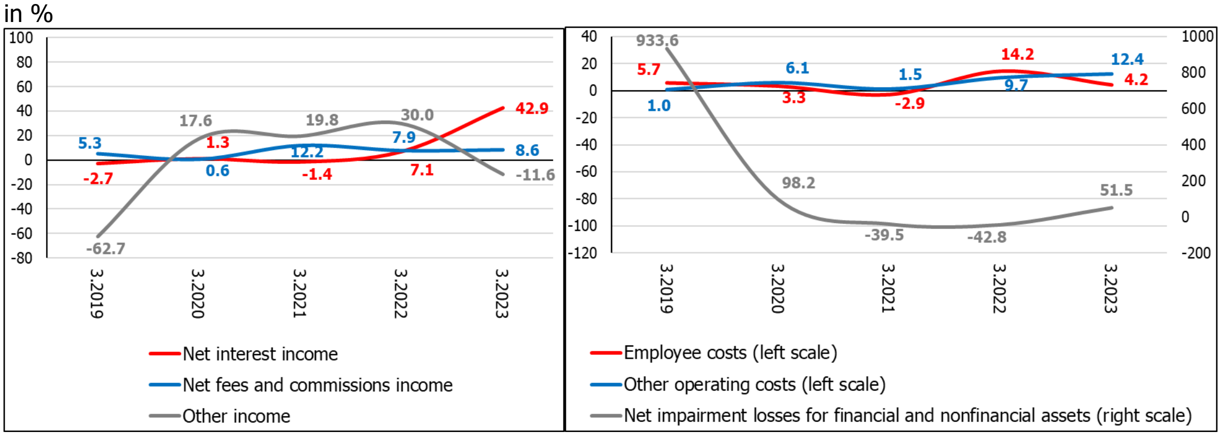
Source: National Bank, based on the data submitted by banks.

Chart 45 Contribution to banks' profit generation (left) and to profit growth (right)
in millions of denars



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

Chart 46 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.

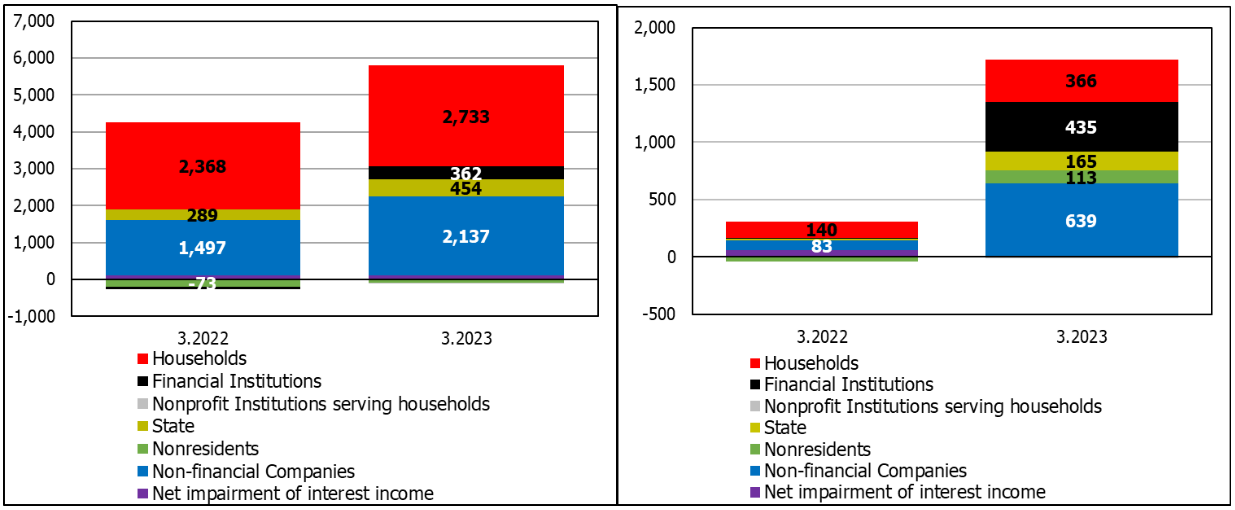
Amid growth in interest rates and the interest bearing assets[77]-to-interest bearing liabilities ratio[78], the higher net interest income results from the higher growth of interest income (by Denar 2,030 million, or 43.1%), compared to the growth of interest expenditures (by Denar 314 million, or 43.9%). Moreover, net interest income grew in almost all sectors amid higher growth of interest income compared to the growth of interest expenditures.

[77]Compared to the end of the first quarter of 2022, the interest bearing assets increased by Denar 46,708 million, or 8.6% (as of 31.3.2022, this growth amounted to Denar 50,540 million, or 10.2%), while compared to 31.12.2022, it was lower by Denar 3,986 million, or 0.7%.

[78]Compared to the first quarter of 2022, the interest bearing liabilities grew by Denar 9,846 million, or 3% (as of 31.3.2022, this growth amounted to Denar 12,465 million, or 3.8%), while compared to 31.12.2022, they were lower by Denar 1,653 million, or 0.5%.

Chart 47 Net interest income of the banking system by sector, structure (left) and contribution to the growth (right)

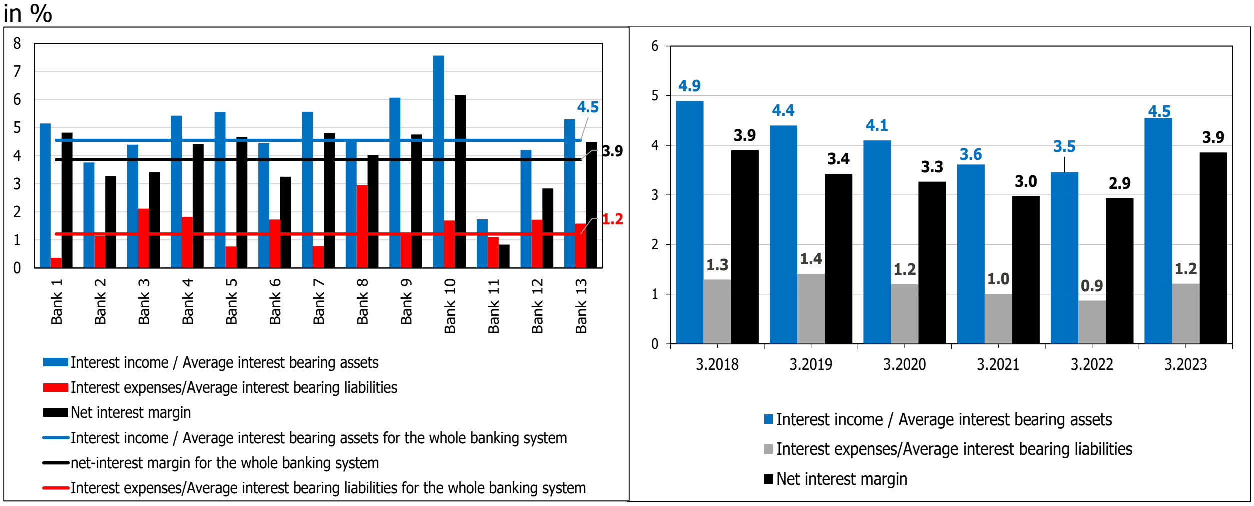
in millions of denars



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

Chart 63 Net interest margin as of 31.12.2022, by bank (left)* and of the banking system (right)

in %



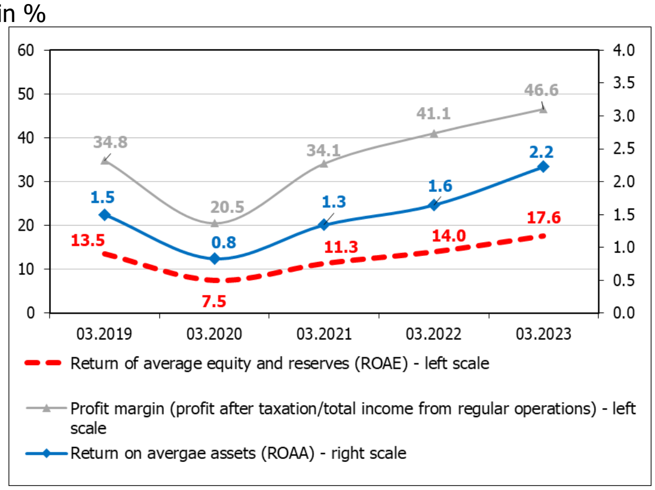
Source: National Bank, based on the data submitted by banks.

* Indicators of the banking system are shown in lines.

In the first quarter of 2023, the net interest margin, following the decrease in the previous four quarters, grew by 1 percentage point, reaching 3.9%. Such growth was due to the more pronounced growth of net interest income (42.9%) compared to the growth of the average interest assets (14.2%).

The accelerated profit growth in the first three months of 2023 improved the main profitability ratios[79] of the banking system. Compared to the same period in the previous year, the rate of return on average equity and reserves and the profit margin increased by 3.6 and 5.5 percentage points, respectively, while the rate of return on average assets increased by 0.6 percentage points.

Chart 48 Rates of return on average assets and on average equity and reserves and profit margin
in %



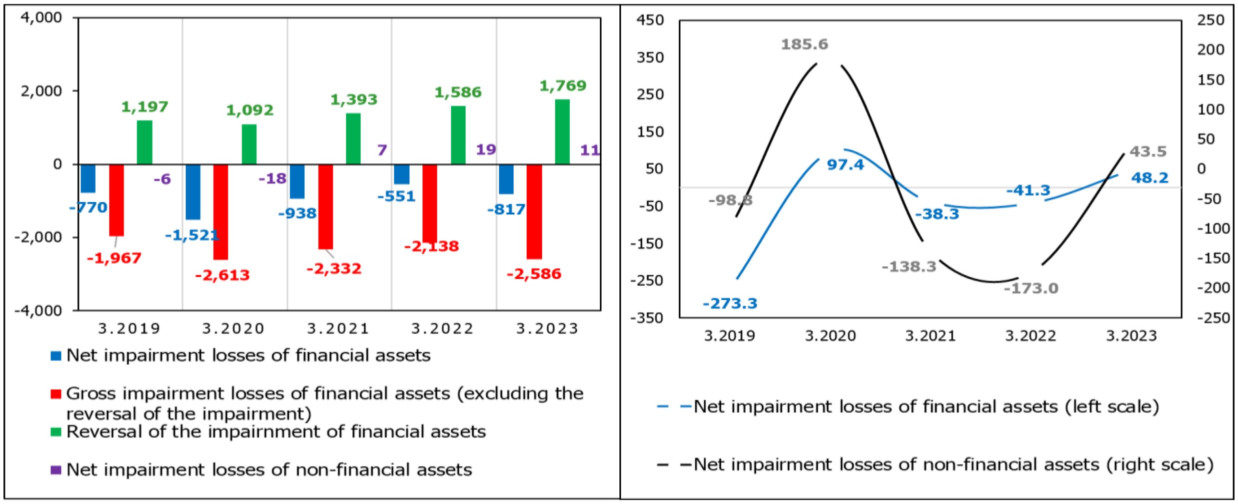
Source: National Bank, based on the data submitted by banks.

The indicators of the banking system operating efficiency generally improved. The operating costs to interest income ratio, as well as operating costs to total regular income ratio significantly improved, by 19.2 and 7.2 percentage points, respectively, due to the faster growth of net interest income (42.9%) and total regular income (27.0%)[80] compared to the increase in operating costs (8.9%)[81]. Operating costs to average assets ratio is unchanged.

[79] Profitability and efficiency ratios of the banking system and bank groups are presented in the Annexes to this Report.
[80]The increase in regular income was determined by the increase in net interest income (by Denar 1,716 million, or 42.9%) and net fee and commission income (by Denar 123 million, or 8.6%).
[81] In the first quarter of 2023, operating costs increased by Denar 285 million (or 8.9%) with the highest increase in general and administrative costs (by Denar 165 million).

Chart 65 Impairment cost for financial and non-financial assets, stock (left) and annual flow (right)

in millions of denars and in %

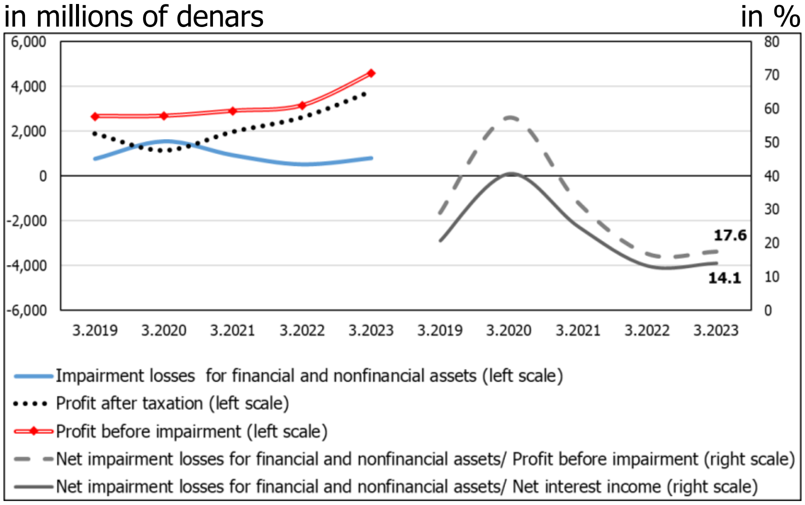


Source: National Bank, based on the data submitted by banks.

In the first quarter of 2023, impairment costs for financial and non-financial assets (net) increased by Denar 274 million or 51.5%. The increase in these costs is primarily due to impairment costs of financial assets (which is a net increase of Denar 266 million or 48.2%). This increase was driven by the higher increase in the gross impairment costs of loans and other placements (by Denar 409 million, or 22.3%), compared to the growth of reversal of the impairment costs of these assets (by Denar 127 million, or 9.5%). **The net impairment of non-financial assets is insignificant.**

Chart 66 Impairment costs to gain and to net interest income ratios

in millions of denars in %

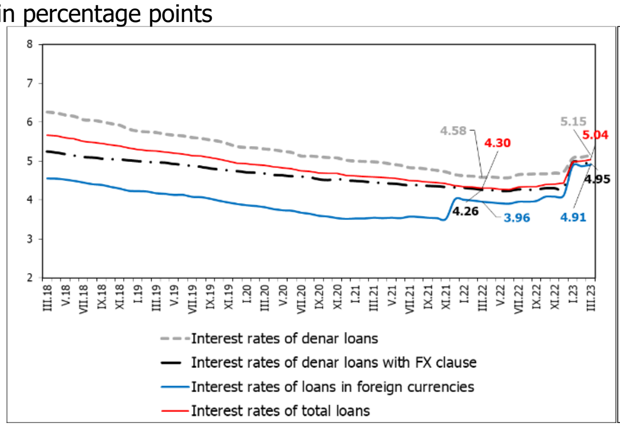


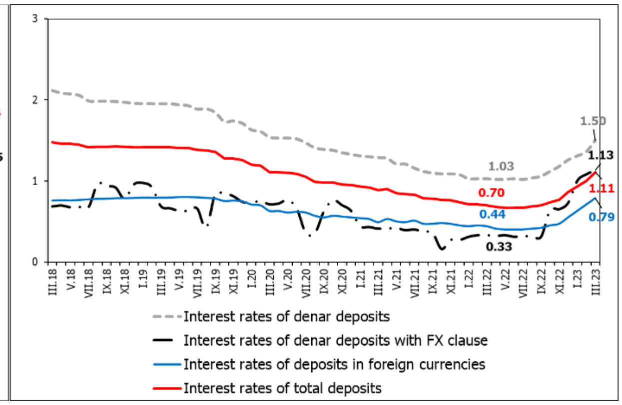
Source: National Bank, based on the data submitted by banks.

2.2. Movements in interest rates and interest rate spread

At the end of the first quarter of 2023, the total interest rate on loans and deposits amounted to 5.04% and 1.11% respectively, which is an increase of 0.74 and 0.41 percentage points compared to the end of the first quarter of the previous year when they equaled 4.30% and 0.70%, respectively. The interest rate spread widened, due to the faster growth in lending interest rates, relative to the growth in deposit interest rates. The spread between the total interest rate on loans and the total interest rate on deposits in March 2023 equaled 3.93 percentage points, compared to 3.60 percentage points at the end of the first quarter of 2022.

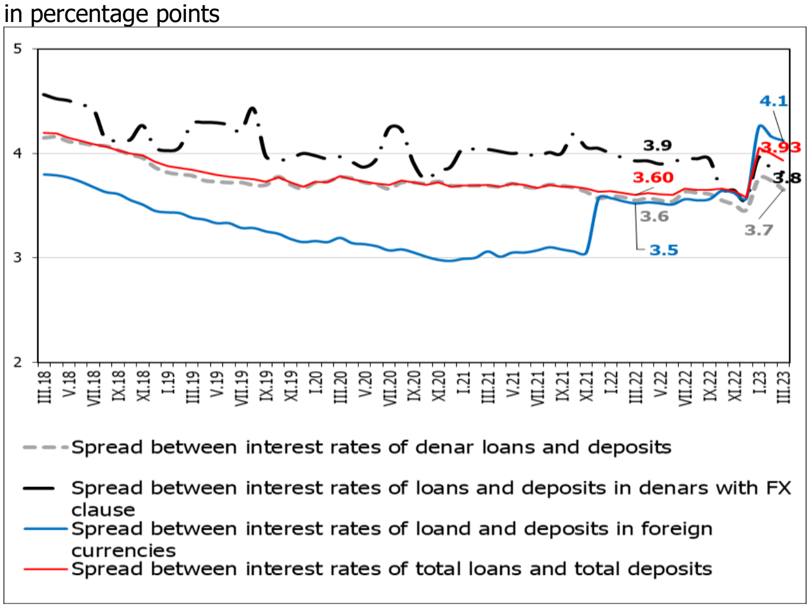
Chart 67 Lending (left) and deposit interest rates (right)
in percentage points





Source: the National Bank

Chart 49 Interest spread
in percentage points



Source: National Bank.

Interest rates on newly agreed activities of banks (loan and deposits) also grew. Thus, the total interest rate on newly granted loans (denar and foreign currency) in March 2023 amounted to 5.26%, as opposed to 3.75% at the end of the first quarter in the previous year, which is an increase of 1.51 percentage points. The total interest rate on newly accepted deposits (denar and foreign currency) also grew by 1.36 percentage points, while in March 2023 it equaled 2.04% (0.68 in March 2022).