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

REPORT ON RISKS IN THE BANKING SYSTEM OF THE REPUBLIC OF NORTH MACEDONIA IN THE FIRST QUARTER OF 2019

August 2019

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Summary

The first quarter of 2019 was mostly marked by improvement of liquidity and solvency ratio and further strengthening of the resilience of the banking system. In the first quarter of 2019, the assets of the banking system increased by 0.9%, which is identical to the growth in the first quarter of last year. Speaking of liabilities, the sources of financing coming from the parent entities, deposits from pension funds and the profit realized in the first quarter of the year mostly contributed to the quarterly growth of the funding sources. In addition, one bank issued new ordinary shares, while two banks issued bonds, which also contributed to quarterly increase of banks' financing sources and their enlargement with new stable sources of financing the banking activities. Speaking of assets, most of the newly acquired funding sources were placed in liquid financial instruments, primarily overnight deposits with the National Bank and in Macedonian Eurobonds issued on foreign markets, as well as in loans to non-financial sector.

In the first quarter of 2019, the credit and deposit activity of banks to non-financial sector grew at slower pace compared to the previous quarter, which is usual for this time of the year and mostly associated to certain seasonal factors. However, compared to the dynamics of the overall credit and deposit activity recorded in the first quarter of the past few years, the banks' performances in the first quarter of this year are slightly better. The deposits from non-financial entities remained almost the same, compared to the decline in the first quarters of 2016, 2017 and 2018. Household deposits increased by 0.6%, mostly due to the growth of the foreign currency sight deposits as well as Denar and foreign currency long-term deposits. Deposits from non-financial companies registered a quarterly decline of 1.9%, largely influenced by seasonal effects. The reduction in short-term deposits had the largest contribution to the quarterly decline in corporate deposits, while certain growth was recorded in the foreign currency sight deposits and Denar long-term deposits from this sector. Loans to non-financial entities increased by 0.8% in the first quarter of 2019, which is a better performance than the credit growth recorded in the first quarters of 2016, 2017 and 2018. From sectorial point of view, the quarterly growth of loans to non-financial sector is fully explained by the increased lending to households, which increased by 1.8%, mostly by Denar long-term lending to this sector. Corporate lending increased minimally, by 0.1% in the first quarter of the year as a result of the quarterly decline of Denar short-term loans to enterprises, amid simultaneous increase in foreign currency short-term and Denar long-term loans with FX clause of this sector.

The realization of credit risk, reflected by the growth of non-performing loans (1.3%), slowed down in the first quarter of 2019, compared to the last quarter of 2018 (6.8%). The majority (of almost 80%) of the quarterly growth of non-performing loans accounts to the increase of these loans to non-financial companies, which has been deployed in several activities (construction, trade, professional, scientific and technical activities and in certain specific activities of the industry). However, the non-performing loans to households increased in the first quarter of 2019 (by 1.4%), due to the growth of non-performing consumer loans, as well as non-performing loans for purchase and renovation of commercial and residential real estate. The share of non-performing to total loans to non-financial entities remained at the same level (of 5.2%), as of 31.12.2018, amid unchanged NPL ratio of households (2.3%) and minimal growth of 0.1 percentage point with the NPL ratio of non-financial companies (8.1% on 31.03.2019).

The high coverage of non-performing loans with impairment continued in the first quarter of 2019 (76.5%), which amid satisfactory volume and quality of own funds, limited the adverse effects on the banks' solvency from potential default of these loans.

The liquidity ratios of the banking system improved, amid solid quarterly growth of liquidity assets of the banks (3.3%). The highest quarterly growth in the structure of liquid assets was registered in the overnight deposits with the National Bank and placements in government bonds. At the same time, the assets on corresponding accounts in foreign banks and placements in treasury bills decreased on a quarterly bases. The liquid assets still make up roughly one third of the banks' total assets, covering almost 55% of the short-term liabilities and 60% of the total household deposits. At the same time, the ratio between loans and deposits of the banking system is maintained at a level lower than 87%.

The profits of the banking system earned in the first three months of 2019 was halved compared to the same period of 2018. Such developments are largely due to the impact of one-off events present in the first quarter of 2018 (explaining almost 90% of the decline in profits). However, even if we isolate their effect, the profit in the first quarter of 2019 is lower (by 9.4%), compared to the same period of the previous year, which in turn, largely arises from the decrease in capital gains from sales of assets and net interest income (due to decline in interest income amid simultaneous growth of interest expenses) as well as the increase in banks' operating costs. As of March 31, 2019, the rates of return on average assets and average capital and reserves of the banking system amounted to 1.5% an 13.5% respectively, (as opposed to 3.1% and 28%, for the first three months of 2018), while the ratio between operating costs and total regular income accounted for 50.9% (42.2% for the same period last year).

The solvency ratios of the banking system show improvement, which arises from the new issues of shares and bonds (which met the conditions to be included in the calculation of own funds) and reinvestment of profits in the banks' capital. The capital adequacy ratio of the banking system equals 17% as of 31.3.2019 (16.5% as of 31.12.2019), while the ratio between the most quality layer of the banking system's own funds (common equity Tier 1 capital) and risk weighted assets equals 15.4% (15% as of 31.12.2018). Aggregately, the banking system has "free" capital available above the regulatory and supervisory minimum at the level of 10.5% of the total own funds (8.6% as of 31.12.2018).

The direct exposures of the banking system to currency risk and interest rate risk in the banking book are still small and account for 1.8% and 5.6%, respectively, in the total own funds. Indirect exposure to these risks arising from the presence of loans with currency component (41.5% on 31.03.2019) and loans with adjustable and variable interest rates (76.1% on 31.03.2019) in bank's portfolios is significant and noted certain increase in the first quarter of 2019.

The National Bank continues to closely monitor the movements and risks present in the banking system and if it sees a need to limit certain risks, it will take appropriate measures.

I. Structure of the banking system

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

As of 31 March 2019, there are fifteen banks in operation in the Republic of North Macedonia, which is unchanged number compared to the previous quarter. The number of banks that are predominantly owned by foreign shareholders (eleven banks), and the number of subsidiaries of foreign banks (six banks) is also unchanged.

Table 1

Structure of major balance sheet positions, by banks' majority ownership (as of 31.3.2019)

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	**11**	**42,252**	**73.1%**	**364,107**	**71.7%**	**259,216**	**80.4%**	**261,470**	**70.4%**	**17,965**	**76.3%**	**5,219**	**78.4%**
- subsidiaries of foreign banks	*6*	*36,430*	*63.0%*	*294,397*	*57.9%*	*210,867*	*65.4%*	*214,580*	*57.8%*	*15,170*	*64.5%*	*5,172*	*77.7%*
- Austria	1	2,294	4.0%	22,106	4.4%	15,222	4.7%	13,031	3.5%	937	4.0%	172	2.6%
- Bulgaria	1	1,184	2.0%	9,571	1.9%	6,534	2.0%	6,813	1.8%	374	1.6%	-5	-0.1%
- Greece	1	11,458	19.8%	92,385	18.2%	67,228	20.8%	74,964	20.2%	5,452	23.2%	2,295	34.5%
- Slovenia	1	11,076	19.2%	81,125	16.0%	55,828	17.3%	64,430	17.3%	4,486	19.1%	1,502	22.6%
- Turkey	1	6,704	11.6%	49,164	9.7%	35,783	11.1%	28,451	7.7%	2,112	9.0%	679	10.2%
- France	1	3,714	6.4%	40,047	7.9%	30,272	9.4%	26,891	7.2%	1,809	7.7%	528	7.9%
- other banks in dominant foreign ownership	*5*	*5,822*	*10.1%*	*69,710*	*13.7%*	*48,349*	*15.0%*	*46,890*	*12.6%*	*2,795*	*11.9%*	*47*	*0.7%*
- Bulgaria	2	2,312	4.0%	23,432	4.6%	15,938	4.9%	16,407	4.4%	1,090	4.6%	273	4.1%
- Germany	1	2,603	4.5%	28,058	5.5%	20,801	6.4%	16,723	4.5%	915	3.9%	131	2.0%
- Switzerland	2	907	1.6%	18,220	3.6%	11,610	3.6%	13,760	3.7%	790	3.4%	-357	-5.4%
Banks in dominant ownership of domestic shareholders	**4**	**15,550**	**26.9%**	**143,946**	**28.3%**	**63,382**	**19.6%**	**109,993**	**29.6%**	**5,570**	**23.7%**	**1,437**	**21.6%**
- private ownership	*3*	*12,948*	*22.4%*	*134,474*	*26.5%*	*63,341*	*19.6%*	*109,993*	*29.6%*	*5,452*	*23.2%*	*1,399*	*21.0%*
- state ownership	*1*	*2,601*	*4.5%*	*9,472*	*1.9%*	*41*	*0.0%*	*0*	*0.0%*	*118*	*0.5%*	*38*	*0.6%*
Total:	**15**	**57,801**	**100.0%**	**508,054**	**100.0%**	**322,598**	**100.0%**	**371,463**	**100.0%**	**23,535**	**100.0%**	**6,655**	**100.0%**

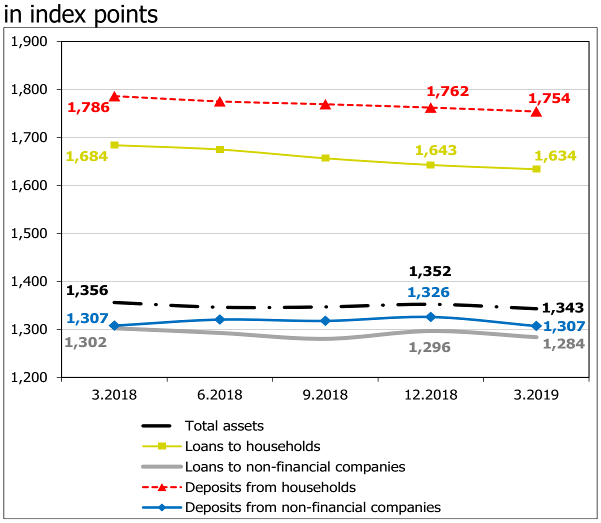
Source: National Bank, based on data submitted by banks.

*Total revenues and financial result are calculated for the last twelve months (31.3.2018-31.3.2019).

Chart 1

Herfindahl index

in index points



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

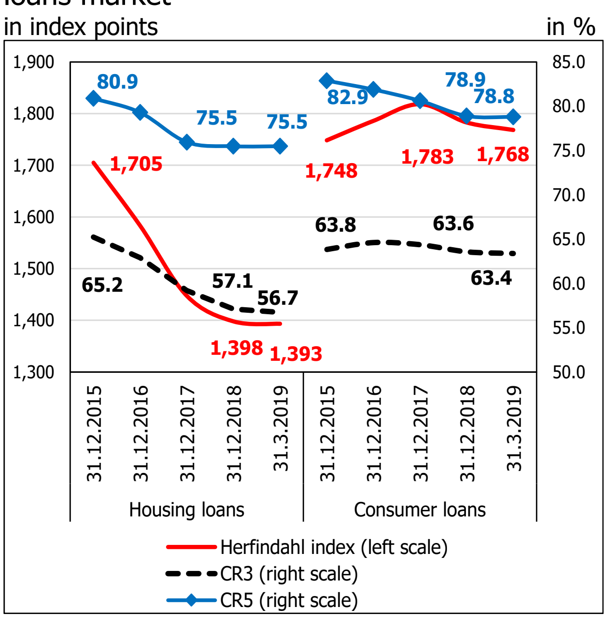
In the first quarter of 2019, the banks with majority foreign ownership strengthened their largest share in most categories of activities. The deposits from non-financial entities are exception, where the share of banks with majority foreign ownership decreased on a quarterly basis (1.4 percentage points), but remains the highest (70.4%). On the other hand, the banks with majority foreign ownership have the largest share in loans to non-financial entities (80.4%) and in the overall financial result (78.4%).

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

Position	31.03.2019		31.12.2018	
	CR3	CR5	CR3	CR5
Total assets	56.8	74.4	57.3	74.5
Loans to households	60.3	77.5	60.3	77.7
Loans to non-financial companies	49.0	72.4	49.9	72.3
Deposits from households	69.3	79.8	69.6	80.0
Deposits from non-financial companies	49.7	75.9	50.7	75.5
Financial result*	75.8	94.0	79.6	94.4
Total revenues*	61.1	77.8	62.6	78.2

Source: National Bank, based on data submitted by banks.
*Total revenues and financial result are calculated for the last twelve months (31.3.2018-31.3.2019).

Chart 2
Concentration of the housing and consumer loans market



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

The downward trend in the concentration in the banking system as measured by the Herfindahl index[1], continues in the first quarter of 2019. Thus, in all analyzed categories, the Herfindahl index decreased by ten index points and is at a moderate level[2].

On a quarterly basis, the participation indicators of the three and five largest banks in the banking system in individual categories of activities confirm the downward trend concentration[3].

The concentration of the housing loans market has also decreased significantly in the past few years (from 31.12.2019 to 31.03.2019), indicating an intensified tightening of competition between banks for housing loans as the fastest growing credit product in the analyzed period. In contrast, the consumer credit market is more concentrated. The total market share of the three banks with the highest shares in the total consumer loans has hardly changed in the analyzed period. On the other hand, the Herfindahl index, calculated for consumer loans, primarily increased in the period between 2015 and 2017, but in the first quarter of 2019, returns to the level achieved in 31 December 2015. Some downward movement is noted in CR5 indicator, which measures the total share of the five banks with the highest share in total consumer loans.

The difference between the banks in terms of their share in the total assets remains high albeit a minimal quarterly decrease in the spread

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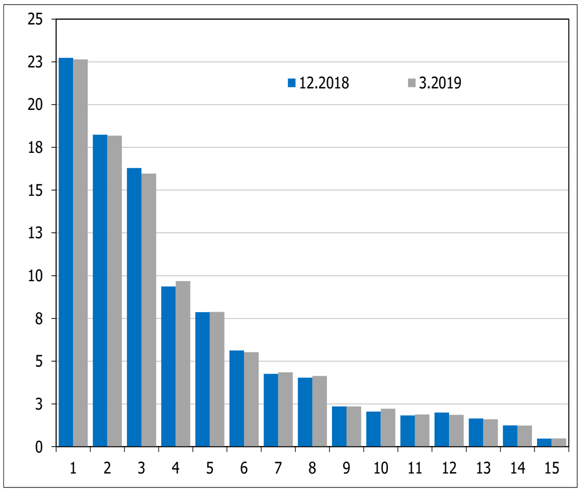
[1] The Herfindahl index is calculated according to the formula $HI = \sum_{j=1}^{n} (S_j)^2$, where S is the share of each bank in the total amount of the analyzed category (e.g., total assets, total deposits, etc.), where *n* denotes the total number of banks in the system.
[2] When the index ranges from 1,000 to 1,800 points, the concentration ratio is considered to be moderate.
[3] The CR5 indicators for loans and deposits of non-financial companies are exceptions, and they increased on a quarterly basis by minimum 0.1 and 0.2 percentage points, respectively.

Chart 3
Share of individual banks in the total assets of the banking system
In %



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

between the bank with the highest (22.7%) and the bank with the lowest share (0.5%) by 0.1 percentage point.

The market share of total assets of the three largest banks in the system decreased by half a percentage point and was distributed to each of the three largest banks. Two medium-sized banks (the largest and the smallest among the banks in the system) also record a decrease in market shares, while all other banks increased their shares slightly or kept them almost unchanged as on 31.12.2018. Ten banks in the system have individual market shares of less than 5% (their joint market share is 25.6%), while five smallest banks have a market share of 7.1% on 31.03.2019.

II. Bank risks

1. Credit risk

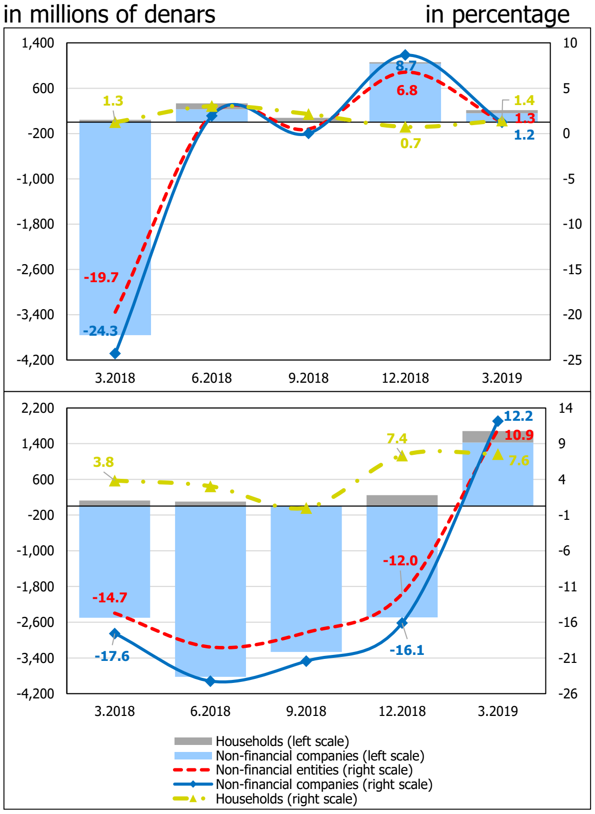
The realization of the credit risk, reflected in the growth of non-performing loans, slowed down significantly in the first quarter of 2019, when the non-performing loans increased by 1.3% (6.8% in the last quarter of 2018), so the participation of these loans in the total loans to non-financial sector remained at identical level amounting to 5.2%. In the credit portfolio of households, the non-performing loans increased twice as fast compared to growth in the previous quarter due to the increase of non-performing loans for the consumption and procurement needs and renovation of residential and business premises, amid simultaneous decline of other non-performing loans to households. In contrast, the non-performing loans to non-financial corporations grew fairly slowly, compared to the increase in the fourth quarter of 2018, amid divergent movements in certain sectors. The high coverage of non-performing loans with own impairment (76.5%) remained in the first quarter of 2019, which with a sufficient volume and quality of own funds, limits the negative effects on the banks' solvency.

Household credit support recorded relatively high and stable growth given the positive effects of greater dispersion of risks in terms of the amount of loans and number of clients, solid collection and consequently, good and constant quality of credit portfolio amid low indebtedness of this sector. However, lending to households includes and combines several features that may represent a future source of credit risk: predominantly long maturities, still high share of currency component loans, applying variable interest rates and the presence adjustable interest rates in credit agreements, higher concentration of debt among households with lower income, facilitating the demand on the amount of the ratio between the monthly loan repayment obligation and income of individuals, primarily in consumer loans (in some banks). The National Bank constantly monitors the trends in consumer loans and is ready, if it assesses a need to limit the risks of growth and facilitated conditions for consumer lending to undertake appropriate measures.

In the first quarter of 2019, the loans to non-financial companies are almost unchanged, amid generally slower and volatile growth of these loans, compared to household lending. The quality of this part of the credit portfolio is largely influenced by the business performances of clients from the three most important economic activities (trade, industry and construction sector). Despite some improvement in corporate performance, the weaker liquidity and operational efficiency in the corporate sector should not be overlooked. Moreover, the relatively high share of loans with a single repayment, loans with approved grace period and loans with extended maturities, requires careful monitoring of the risks associated with lending to this sector, taking into account the business cycle and type and purpose of the project being funded.

Chart 4
Quarterly (up) and annual (down) growth rate of non-performing loans to non-financial entities

in millions of denars   in percentage



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

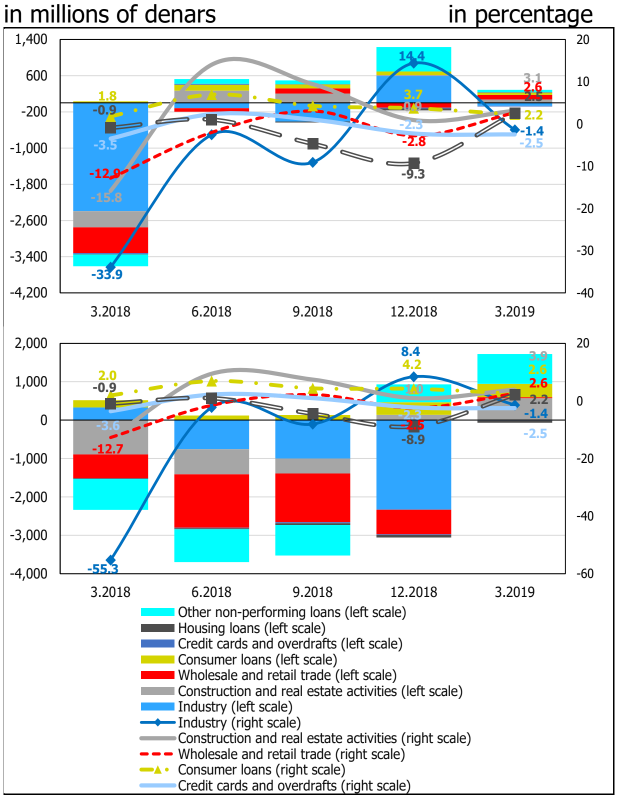
1.1. Materialization of credit risk in banks' balance sheets

In the first quarter of 2019, the total non-performing loans to non-financial sector increased by 1.3% (Denar 208 million), which is five times slower compared to the growth recorded in the last quarter of 2018. Analyzed by individual credit portfolios, the non-performing loans show accelerated growth in households and significantly slower increase in non-financial companies.

Non-performing loans to households increased by 1.4% or by Denar 52 million, i.e. twice as fast compared to the growth in the previous quarter. This growth is almost entirely attributed to non-performing consumer loans (which increased by Denar 49 million, or by 2.2%), which can be an indicator of a certain materialization of the risks of the faster growth and eased terms of consumer lending in the past period. However, the quarterly growth of non-performing consumer loans slowed down in the last few quarters[4]. Meanwhile, non-performing housing loans increased in the first quarter of 2019 by denar 11 million (or by 2.5%), since in the last three years these loans have generally maintained a downward quarterly dynamics. The increase of the non-performing loans for purchase and reconstruction of business premises (by Denar 17 million, or by 76.5%)[5] is also noteworthy. However, the growth of non-performing loans to households for consumption purposes and for purchase and reconstruction of residential and business premises is partially offset by the reduction in other non-performing loans to households[6].

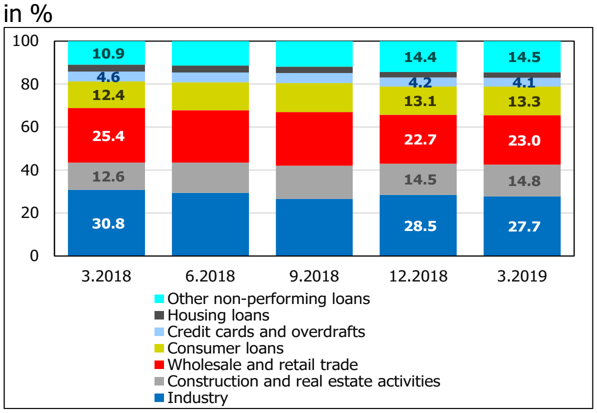
[4] Quarterly growth of non-performing loans amounted Denar 131 million, or 7.0%, Denar 87 million, or 4.3% and Denar 78 million or 3.7% in the second, third and fourth quarter, respectively.
[5] In the previous three quarters these loans registered downward movement.
[6] The quarterly decrease of non-performing credit cards and overdrafts of current accounts amounts Denar 17 million or 2.5%, while the decrease of non-performing car loans amounts Denar 4 million, or 29.4%.

Chart 5
Quarterly (up) and annual (down) growth rate of non-performing loans, by activity (non-financial corporations) and by credit product (households)



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

Chart 6
Structure of non-performing loans to the banking system, by individual activities (non-financial companies) and credit products (households)

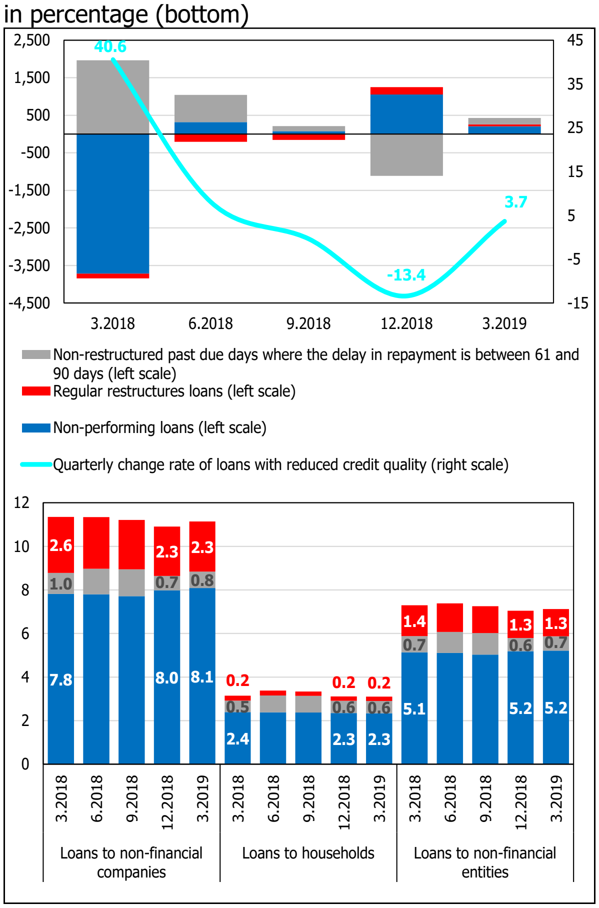


Source: National Bank's Credit Registry, based on data submitted by banks.

After the significant growth recorded in the last quarter of 2018 (Denar 1.035 million, 8.7%), the increase of non-performing loans to non-financial companies was significantly slower in the first quarter of 2019 (by Denar 161 million, or by 1.2%). Analyzed by individual activity, the highest absolute quarterly growth was noted in non-performing loans to clients from trade activity (Denar 99 million, or 2.6%) and construction sector (Denar 75 million, or 3.1%), followed by growth of non-performing loans to clients in "Textile Industry" (Denar 52 million, or 11.1%), "Chemical Industry" (Denar 49 million, or 18.1%) and "professional, scientific and technical activities" (Denar 39 million or 21. 6%). The growth of non-performing loans in all the aforementioned activities arises from non-fulfillment of credit obligations of several major clients in the relevant area. On the other hand, in the first quarter of 2019, the non-performing loans in the remaining industries decreased, with a most pronounced decline in the activities "production of metals, machinery, tools and equipment" (Denar 85 million, or 74.2%), "electricity supply, gas, steam and air-conditioning" (Denar 38 million or 2.6%), "other processing industry (Denar 33 million or 2.9%) and the catering activity (Denar 25 million or 10.2%). In terms of overall industry activity, the non-performing loans record a slight decline (Denar 66 million or 1.4%), after the significant increase in the previous quarter of Denar 593 million, or 14.4%. The reduction of non-performing loans in the aforementioned activities are mostly due to the mandatory write-offs and improved discipline in the discharge of duties of several clients, and to a lesser extent arises from the sale of non-performing written-off receivables from several non-financial companies by one bank and from the closing of some outstanding receivables by taking over the collateral.

Non-performing loans to non-financial sector increased annually, following a constant decrease in the past one-year period. Such movements are due to the significantly smaller amount of mandatory, as

Chart 7
Non-performing loans and regular loans to non-financial entities with reduced credit quality*, quarterly growth (up) and share in total loans to non-financial entities (down)
in millions of denars (top) in percentage
in percentage (bottom)



Source: National Bank's Credit Registry, based on data submitted by banks.
*For the purposes of this analysis, regular loans with reduced credit quality include regular restructured loans and regular non-restructured loans where the delay in collection is between 61 and 90 days.

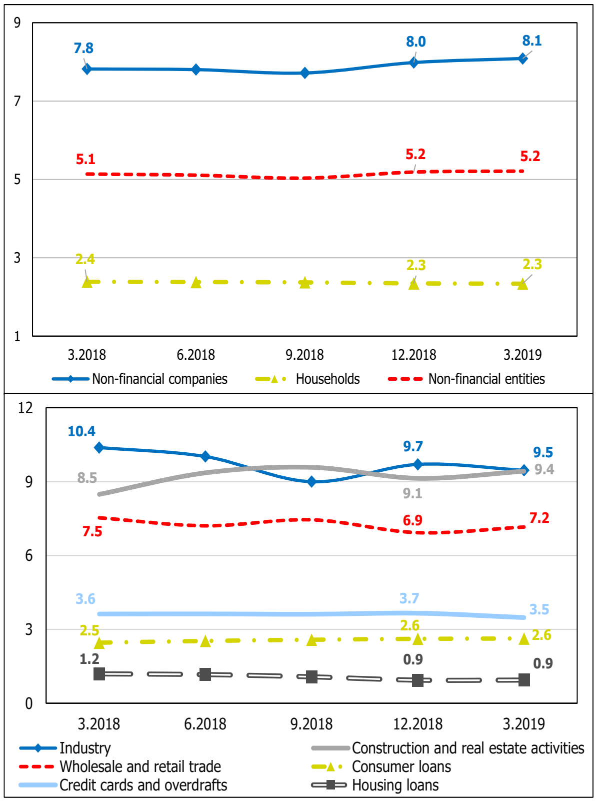
well as regular write-offs of non-performing loans in the first quarter of 2019, compared to the previous several quarters, but to a large extent on a lower comparative basis, given the sale of a significant amount of non-performing loans by one non-financial company as well as a closure of larger amounts of uncollected receivables by taking over and selling collateral in the first quarter of 2018.

Non-performing loans to households increased by 7.6% (or by Denar 256 million) annually[7]. **Non-performing loans to non-financial companies recorded a double-digit growth of 12.2%** (or by Denar 1.427 million), which was last noted in the first quarter of 2015, **while since the introduction of the measure for mandatory write-offs until February 2019, the "bad" loans in this sector had a downward annual dynamics.**

Regular loans with reduced credit quality[8] register upward movement (of 3.7%), compared to the last quarter of 2018 when they significantly decreased (13.4%). Regular loans where the delay in collection spreads from 61 to 90 days[9] increased by Denar 171 million, or by 8.8%, while regular restructured loans increased by Denar 48 million, or by 1.2%. The growth of banks' claims where the period of delay in the repayment of the principal is between 61 and 90[10] days and is mostly due to the increase of these loans to non-financial companies in the "real-estate activities" and certain branches of the manufacturing Industry[11]. The increase of restructured regular loans is also completely concentrated on non-financial companies and is a result of the new restructuring of receivables from several clients[12] and return to regular status of

[7] The accelerated growth of non-performing loans to households continued even after the cut-off date of this report in April and May 2019 (growth of 9.4% or Denar 320 million, and 8.4% or Denar 297 million, respectively).
[8] For the purposes of this analysis, regular loans with reduced credit quality denote regular restructured loans and past due regular non-restructured loans where the delay in the repayment is between 61 and 90 days.
[9] The possible prolonged delay in the collection of this regular loans for additional 1-30 days would lead to their transition in non-performing status.
[10] Given that only 0.6% of past due loans between 61 and 90 days of non-financial companies have received a non-performing status in April 2019, the collection of the past due part is considered to be solid. As for households, this percentage is higher and amounts to 3.3%, while for the overall non-financial sector it amounts to 1.0%.
[11] Mostly in the "Food Industry", Textile Industry" and Chemical Industry".
[12] Several major clients in "Wholesale and Retsail trade", Real Estate Activities" and "Electricity, gas, steam and air-conditioning supply".

Chart 8
Rate of non-performing loans to non-financial entities, by individual sectors (top) and by individual activities and credit products (bottom)
in %



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

restructured non-performing loan[13], where the implemented restructuring gave positive results.

The current shifts in these two potential "sources" of new non-performing loans do not indicate a risk to their significant increase.

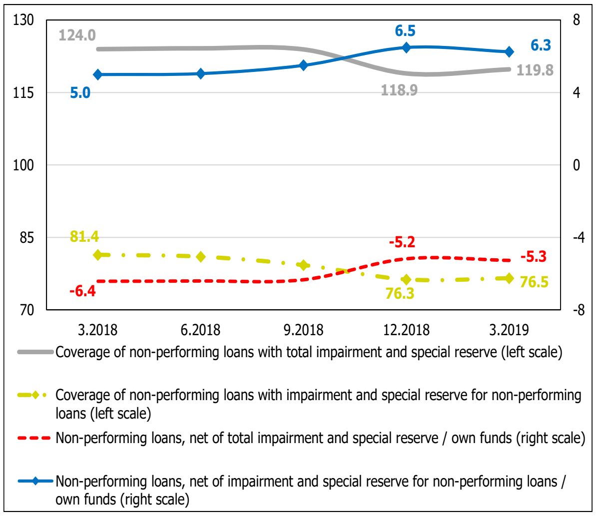
In the first quarter of 2019, the share of non-performing loans to total loans remained the same (5.2%[14]). Non-performing loans to non-financial companies participate with 8.1% in total loans of this sector, which is a minimal quarterly increase of 0.1 percentage points. The increase of this indicator is due to the slower credit support to this sector[15], which is associated with reduced demand[16] for long term loans by small and medium enterprises.

In the household credit portfolio, the share of non-performing to total loans remained unchanged on quarterly basis (2.3%), which given the accelerated growth of non-performing loans is due to solid credit support to this sector. This ratio improved minimally with credit cards and overdrafts on current accounts, and remained at the same level as in the previous quarter with consumer and housing loans.

Loans to non-financial companies occupy a dominant part (78.2%) of the non-performing loan portfolio of banks. Analyzing the non-performing loan of the corporate sector, the shares of non-performing loans to non-financial companies from the industry, and wholesale and retail trade are the highest, which account for slightly more than half of the total amount of non-performing loans. However, their joint share decreased by 5.4 percentage points in the past year[17] due to the implemented write-offs as well as selling part of the non-performing receivables and returning some of the clients from non-performing to regular status[18]. On the other hand, an annual increase in total non-performing

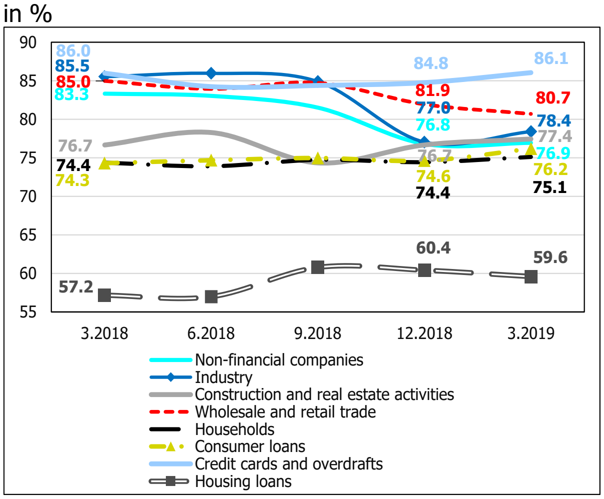
[13] Agriculture, forestry and fishing.
[14] The historically lowest level of this indicator of 5% is registered at the end of September and October 2018.
[15] In the first quarter of 2019, the total loans of the non-financial corporations went down by insignificant Denar 84 million, or 0.1%.
[16] Source: Bank Lending Survey conducted on a regular quarterly basis by the National Bank.
[17] The largest decrease of 6.3 percentage points is recorded in the share of "Processing Industry" to the level of 18.2% on 31.03.2019. Non-performing loans to total loans in "Industry" (processing industry, mining and quarrying and electricity, gas, steam and air-conditioning supply) for three consecutive quarters is maintained below 10%.
[18] This concerns some industrial activity clients.

Chart 9
Coverage of non-performing loans with impairment
in %



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

Chart 10
Coverage of non-performing loans with impairment by individual activities and credit products
in %



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

loans was registered in construction and activities related to real estate (from 12.6% to 14.8%), transport and storage (from 2.5% to 3.8%) and agriculture, forestry and fishing (from 0.5% to 3.3%). From the households' portfolio, consumer loans have the highest share in the total non-performing loan portfolio of banks (13.3%)[19].

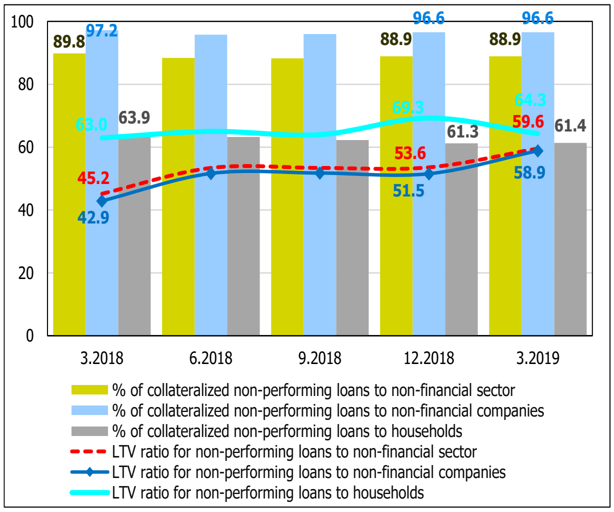
The scope of unexpected losses, i.e. negative effects from eventual complete uncollectability of non-performing loans have limited impact on the solvency position of the banking system. Namely, non-performing loans are solidly provisioned in the banks' balance sheets (with 76.5%), and the remaining part, assuming its complete default, would "impair" only 6.3% of the total own funds of the banking system. The coverage of non-performing loans is slightly higher in the loan portfolio of non-financial corporations (76.9%), and is especially high in wholesale and retail trade (80.7%), while housing loans are the least provisioned (59.6%), which corresponds to the high quality of this segment of the household loan portfolio.

In addition, about 89% of non-performing loans are backed by some collateral whose estimated value is almost twice as high as the amount of the collateralized non-performing loans, notwithstanding the moderate deterioration of this indicator in the last one-year period. Despite the total collateralization of non-performing loans to non-financial companies, about 60% of the non-performing loans to households have established certain collateral. The weaker collateralization of this segment of the loan portfolio results from non-performing consumer loans, where the share of collateralized loans is slightly above 50% of the total non-performing consumer loans. However, these loans are solidly reserved with impairment which is on a higher level (76.2%) compared to the total households" portfolio. (75.1%).

In the first quarter of 2019, banks wrote off Denar 391 million, i.e. 2.4% of total non-performing

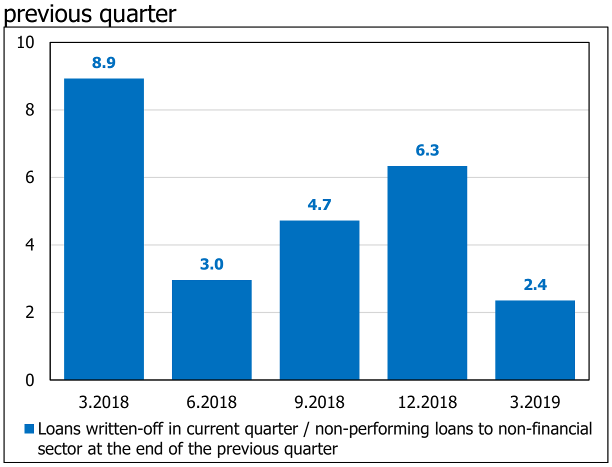
[19] Compared to the first quarter of 2018, consumer loans register an increase in the share in the non-performing loan portfolio of banks of 0.8 percentage points.

Chart 11
Non-performing loans for which collateral and LTV ratio have been established, by sector
in %



Source: National Bank's Credit Registry, based on data submitted by banks.
Note: Banks do not report amount of the collateral, in cases when the collateral is in the form of a guarantor and/or bill of exchange or co-borrower, which contributes to the higher value of the LTV ratio for households. This is especially relevant to the credits intended for consumption (including credit cards and overdrafts), where a guarantor and/or bill of exchange is a relatively frequent type of collateral.

Chart 12
Written-off non-performing loans
in percentage of non-performing loans at the end of the previous quarter



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

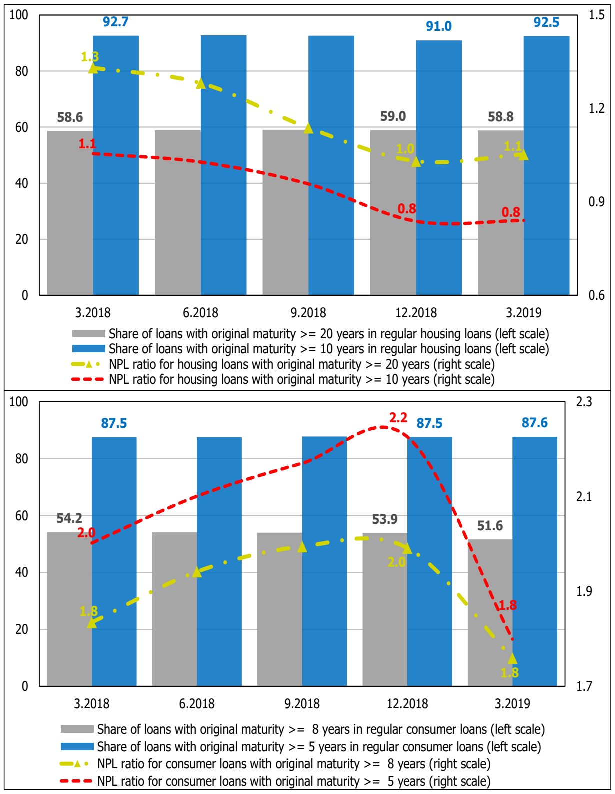
loans at the end of 2018. This represents a lower volume of written-off non-performing receivables by four times compared to same quarter of the previous year. However, the mandatory write-off of non-performing loans should be expected to continue, given the fact that on 31.03.2019, 36.4% of these loans are fully covered by impairment and in the next period[20] are expected to be gradually written-off, if not collected in the meantime. In the first quarter of 2019 some banks conducted sales of non-performing loans, but these sales were mainly to a lesser extent and in the current quarter, and prior (with certain exceptions, such as in the first quarter of 2018). The foreclosed assets based on uncollected receivables records a constant decline in the banks' balance sheets[21], which to some extent is a result of the conducted sales but is largely a consequence of the banks' practice not to take new funds if not sure of prompt and favorable sales (in terms of their mandatory impairment of 20% per year). Roughly 30% of non-performing loans to non-financial sector are loans where banks have tried to help their clients overcome their financial challenges by changing the contractual terms and characteristics of approved loans. In the past period of one year, the restructured non-performing loans decreased by 5.7% (in the first quarter of 2019, these loans decreased by Denar 98 million, or by 1.9%), in one part due to the lower amount of implemented mandatory write-offs of some of these receivables, compared to previous quarters but also due to the success of part of the previously implemented restructurings.

1.2. Potential sources of future credit risk materialization

Despite of the obvious positive effects due to the greater diversification of banks' credit portfolios and solid repayment of the loans by households on aggregate

[20] According to amendments to the credit risk management regulations, which will come into force July 1, 2019, the banks will be required to write-off the receivables that are fully reserved for at least one year (two years, in accordance with the requirements of the regulation which is in force until June 30, 2019).
[21] In the last year, the forfeited property is reduced by 28.5%, while in the first quarter of 2019 this decrease was 0.4%.

Chart 13
Share of loans with selected maturities in total regular loans and NPL indicator for housing (up) and consumer loans (down)
in %



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

level, certain unfavorable trends which could be potential sources of new non-performing loans in this segment of banks' credit activities should not be neglected. Thus, a great part of the growth goes to household loans approved on longer terms[22] in which the creditworthiness of the clients is more uncertain. At the same time, the still high (albeit declining) share of loans with currency component[23] and loans with variable and adjustable[24] interest rate should be taken into account.

According to the original maturity length, observed by individual credit products, over half of the (51.2%) of the regular consumer loans are still approved with a maturity equal to or longer than 8 years[25], while in most of the consumer loans (almost 87%) the maturity is equal to or longer than 5 years. However, the quality of the consumer loans with residual maturity equal to or longer than 5 years measured by the rate of non-performing loans is relatively solid and amounts 1.8%, while the consumer loans with a maturity shorter than 5 years are characterized with more than three times higher rate of non-performing loans (8.1%)[26], compared to total consumer loans (2.6%). This points to a conclusion that currently, the level of credit risk realization, measured by the share of non-performing loans to total loans is higher in consumer loans approved on shorter terms.

Regular housing loans (almost 92.5%) are approved with a repayment period equal to or longer than 10 years and the loans with this maturity segment are characterized with an

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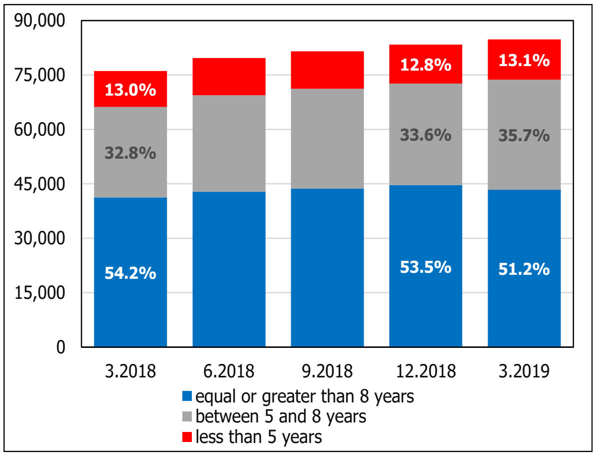
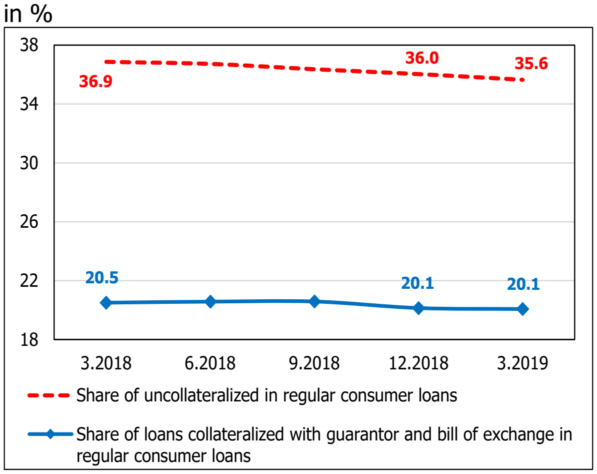
[22] In the first quarter of 2019, long-term household loans accounted for 90.8% in total loans to households, which is a slight downward movement compared to the end of 2018 (91.9%).
[23] On 31.03.2019, regular loans with currency component approved to households account for 44% of total regular loans to this sector (45.3% at the end of 2018 and 46.2% on 31.03.2018). By comparison, this share in regular loans to non-financial companies is lower and accounts to 38.6%. In the past five years (compared to 31.03.2015), the share of regular loans with currency component in total regular loans to non-financial companies decreased by 10.2 percentage points, while in the regular credit portfolio of households this share decreased by 5.7 percentage points.
[24] As of 31.03.2019, the regular loans with variable and unite rally adjustable interest rate accounted for 17.2% and 32.2%, respectively, in total regular loans to households (22.6% and 28.0%, respectively, on 31.12.2018 and 22.7% and 34.6% respectively on 31.03.2018).
[25] By comparison, regular loans with original maturity equal or longer than 8 years accounted for 53.9% and 54.2% in the structure of total regular consumer loans, at the end of last and first quarter of 2018, respectively.
[26] By comparison, at the end of 2018 the non-performing loans rate was 5.3% for loans with maturity shorter than 5 years, which is a quarterly increase by 2.9% percentage points.

Chart 14
Structure of total consumer loans by original maturity
in millions of denars in bars and % in data labels



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

Chart 15
Uncollateralized consumer loans backed only by sureties and promissory notes
in %



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

exceptionally good quality (non-performing loans rate of 0.8%) similar to total housing loans (0.9%).

In terms of consumer loans collateral, around 36% of the regular consumer loans are uncollateralized, although some of them can contain an executive clause in the credit agreements[27]. In addition, about 20% of the regular consumer loans are collateralized with a guarantor and a bill, for which there is no assessed value of the collateral, but according to the banks' experience, the guarantor and the bill represent a good source of collection amid eventual non-fulfillment of the clients' obligations.

In terms of the structure of the credit exposure to households according to their monthly income, there are no significant changes in the first quarter of 2019. About 40% of the total credit exposure to households is concentrated among households with a net-wage equal[28] to or lower than the average net-wage in the first quarter of 2019. This percentage is even higher among the consumer loans and loans intended to finance consumption of individuals and is approximately 50% while the level of housing loans is lower (16.6%). However, this category of borrowers has the lowest average indebtedness by household.

In terms of structural characteristics of loans to non-financial companies which can have impact on the realization of risks associated with this credit portfolio of banks it should be taken into consideration that about 80% of the total loans to non-financial companies[29] go to three activities ("Industry", "Wholesale and Retail Trade" and "Construction and Real Estate activities"), whose operational and business realization are particularly important for the quality level of the

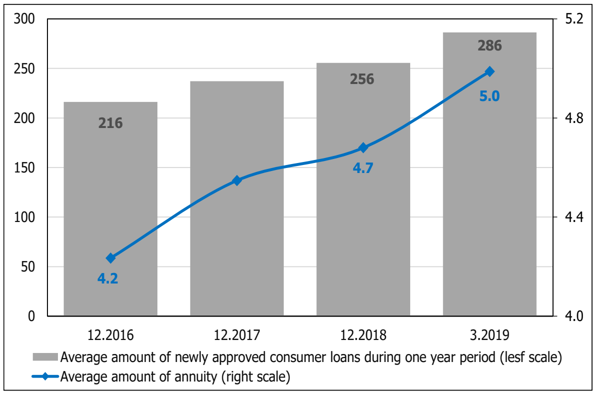
[27] Pursuant to the Law on Enforcement and Law on Notary. The National Bank does not have any data on the amount of loans with such clause included in the agreements.

[28] For the purposes of this analysis, the average net-salary in the first quarter of 2019, is considered to amount Denar 25.000, which completely identical to the announced monthly wage by employee in March 2019 (Deanr 24.590), by the State Statistical Office. The data on the amount of indebtedness of households with a monthly income of up to Denar 25.000 are available only for 31.12.2018 and 31.03.2019.

[29] In the first quarter of 2019, the weaker corporate lending stems from the reduced credit support to customers of trade, services, information and communication and agriculture sector.

Chart 16 Average amount of newly approved loans and average annuity for consumer loans

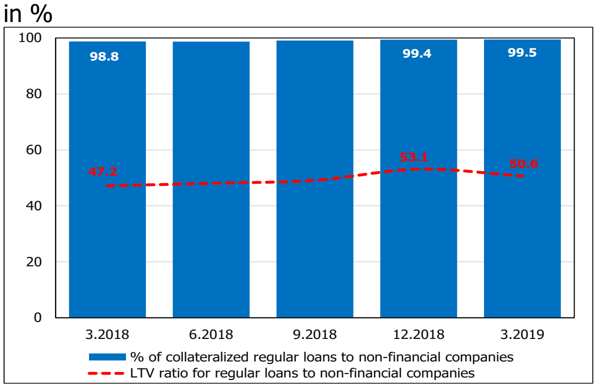
in thousands of denars



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

Chart 18 Regular loans to non-financial corporations with collateral and LTB ratio

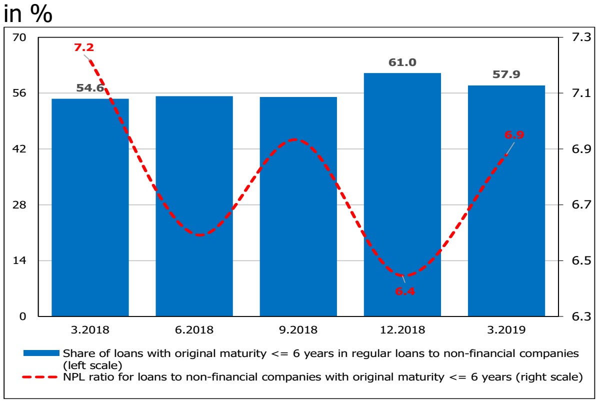
in %



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

Chart 17 Share of loans with selected maturities in total regular loans and NPL indicator for loans of non-financial corporations

in %



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

banks' credit portfolio. Non-performing loan to total loan ratio is the highest in the credit portfolio comprised of banks' clients from these sectors[30].

The banks usually "ensure" the credit support of this sector by establishing certain collateral (99.5% of the loans to non-financial companies are collateralized), usually in a form of equipment, machinery, enterprises, storages and similar. The indicator for the ratio between the collateralized regular loans to non-financial companies and estimated value of collateral is on a level of (50.6%)[31].

In terms of maturity of loans to non-financial companies, the approval period in more than half (57.9%) of total regular loans to non-financial companies is relatively short, i.e. less than or equal to 6 years (32.9% of the regular loans to non-financial companies are approved within a maximum of 1 year). These loans with a repayment period of up to 6 years are characterized by better quality[32] compared to total loans to non-financial companies. In terms of the rest of the characteristics of loans to non-financial companies, the level of loans with one-off payment of the principal should be carefully monitored, whose share is relatively high and stable (about 36% of the regular loans, with highest share of 44.6% in regular loans of commercial activity), although so far, the level of realization of the credit risk in these loans is lower compared to the total loans[33] to non-financial companies. The share of loans to non-financial companies with approved grace period which expires after at least one quarter in total regular loans of companies amounts 11.8% (opposite to 9.2% on 31.12.2018)

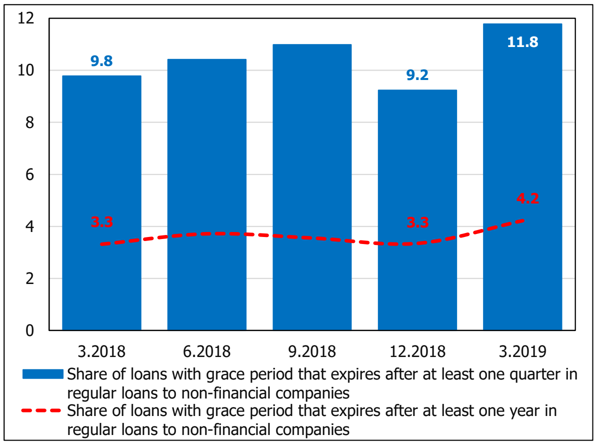
[30] Despite the improvement of this indicator on total industrial activity, the share of non-performing loans to total loans is the highest and reaches double digit values only in certain branches of industry and that is "Processing Industry", (for example in "Other Processing Industry" and "Textile Industry", this indicator is 13.0% and 11.3%, respectively, on 31.03.2109), "Electricity, gas, steam and air-conditioning supply" (17.7%, "Mining and quarrying" (12.1%) and "Construction" (12.0%).

[31] From the aspect of individual activities, the ratio between the amount of regular loans and estimated value of the established collateral is most favorable in construction sector (43.7% on 31.03.2109), but most unfavorable in trade activities (59.2).

[32] Measured by the rate of non-performing loans of 6.9%.

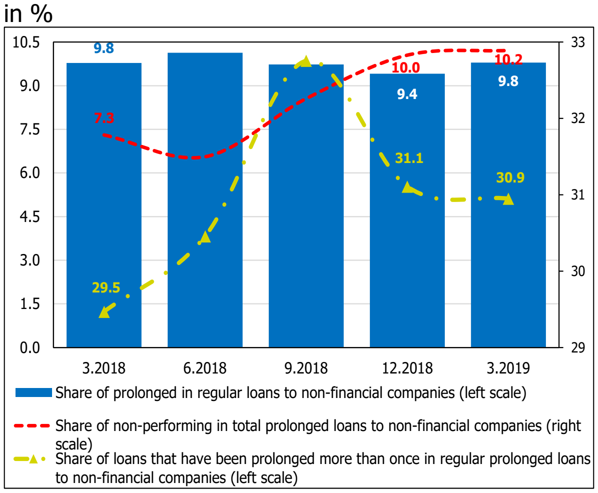
[33] The rate of non-performing loans with one-off repayment of principal amounts 7.2%, with highest share of 8.3% in "Industry".

Chart 19
Loans to non-financial entities with unexpired grace period
in %



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

Chart 20
Prolonged loans of non-financial corporations
in %



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

[34]. Potential source of future realization of the credit risk is a relatively solid share of loans with prolonged maturity (something less than 10% of total regular loans to non-financial companies) [35], especially given the fact that the rate of non-performing loans is higher for prolonged loans (10.2%) [36], compared to the total credit portfolio of non-financial companies.

The structural characteristics of loans to non-financial companies in terms of contractual maturity, frequency, method of structuring the repayments as well as possible changes in credit terms are mainly conditioned by the business cycle of enterprises, time intervals for cash flows, needs for investments in capital projects, or investments in stocks and working capital, as well as expectations for the volume of orders and sales of finished products. Hence, this way of structuring the repayments could be considered as justified and acceptable, but still should be monitored with caution, in relation with individual clients and economic activities given the difficulties of perceiving and timely identifying possible financial difficulties. In this way a possible deterioration of the discipline in the discharge of duties, or a transition to a non-functional status would be eventually avoided.

In terms of concentration, the ten largest regular exposures of banks to non-financial sector accounts for 13.0% of total regular credit exposure, but the amount of these exposures (net of impairment) occupies about 73% of banking system's own funds. Given the high credit quality of the largest regular credit exposures, the banks recorded "impairment" of only 2 .2% of the value of these exposures.

Compared to 31.03.2018[37], the regular rate of uncollectability of the regular credit exposure to

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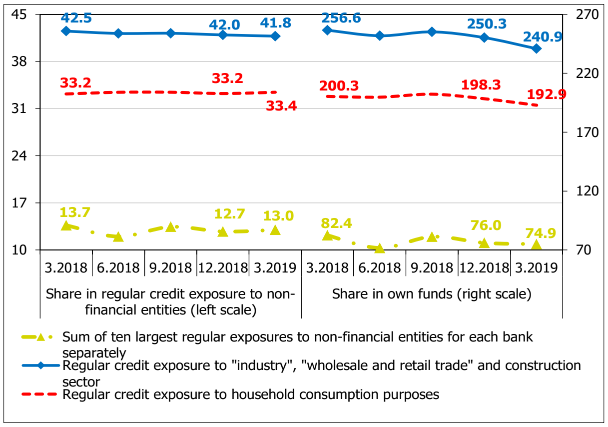
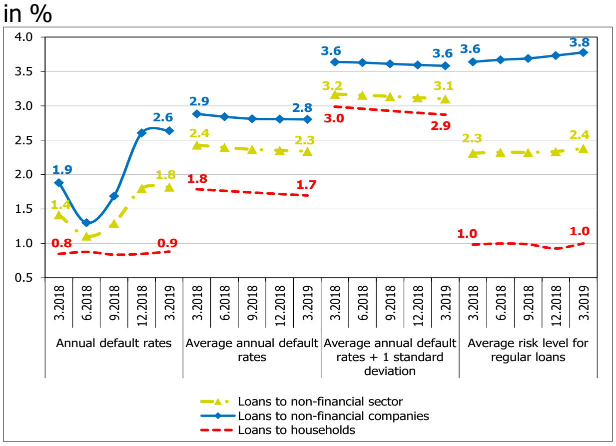
[34] The share of these loans is evidently higher in construction sector and "Industry" (19.3% and 13.5%, respectively).
[35] With a higher share of 10.7% and 13.1% in trade and construction sector, respectively.
[36] The rate of non-performing prolonged loans is the highest in "Industry" amounting 13.7%.
[37] Compared to 31.12.2018, the annual rate of uncollectability remained at identical level, both for total non-financial sector and individual sectors. From the aspect of individual activities, there are divergent movements, i.e. increase of the annual rate of uncollectability in trade and "Transport and storage", amid simultaneous decrease of the annual rate of uncollectability in construction and "Industry". Such divergent movements led to unchanged annual rate of uncollectability in the segment of non-financial companies.

Chart 21 Concentration of the regular credit exposure to non-financial corporations
in %



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

Chart 22 Annual rates of default and average risk level of regular loans, by sector
in %



Source: National Bank's Credit Registry, based on data submitted by banks.
The annual rate of default is calculated as a percentage of performing credit exposure, which for a period of one year transforms into exposure with non-performing status. The average annual default rates and the standard deviation are calculated from the annual default rates registered from 31.3.2009 to the date of calculating the average i.e. the standard deviation.

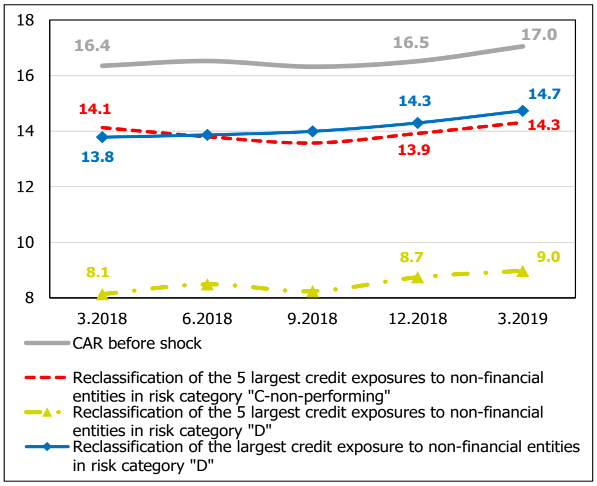
non-financial companies records increase[38] of 0.8 percentage points, which caused an increase of the annual rate of uncollectability of the total non-financial sector by 0.4 percentage points, while in households this rate is unchanged. In addition, the annual rate of uncollectability deteriorated in certain activities[39], except for the improvement in "Wholesale and Retail Trade", so the banks responded by allocating impairment for the regular loans from these activities. The average risk level is rather stable with a slight upward trend maintained on a higher level than the realized annual rates of uncollectability of these loans[40] in the past year, which indicates that the banks are more cautious and secured higher provision of regular loans[41] compared to what is shown in the annual default rate of these receivables.

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

The results of stress testing show that the banking system is more resilient to the simulated shocks compared to the previous quarter. The capital adequacy ratio of the banking system does not go below 8% in individual hypothetical shocks. Assuming 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 to 11.8%[42], which is identical reduction (measured in percentage points compared to the initial level of capital adequacy ratio) as a the result of the same simulation carried out at the end of 2018. By activity, as expected, the capital

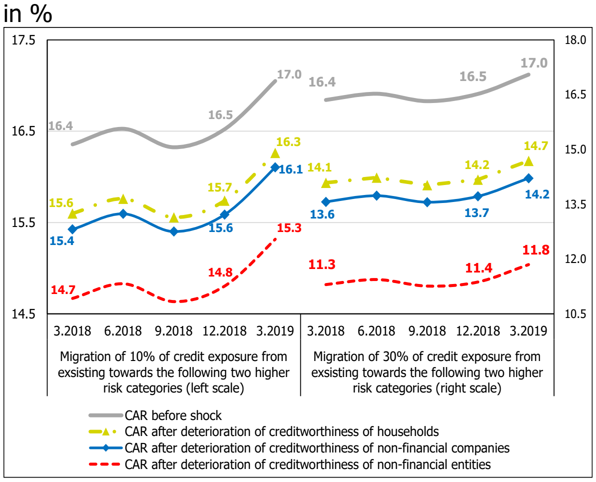
[38] As a result of the transition into non-performing status of certain credit exposures that at the end of the first quarter of 2018 had a regular status.
[39] By individual activities, the annual rate of uncollectability registers increase by 1.8 percentage points (up to 2.2%) in "Transport and Storage", by 1.4 percentage points (up to 4.0%) in the construction sector and by 0.8 percentage points (up to 2.6%) in "Industry".
[40] With the exception of consumer loans and loans to "Transport and Storage" where the average level of risk is lower (by only 0.2 and 0.1 percentage points, respectively) than the annual rate of uncollectability.
[41] In households, the average risk level of regular loans is at a similar level to the realized annual rate of uncollectability (at a level of about 1%).
[42] Only in one bank the capital adequacy ratio decreases below 8%, during the two simulations of hypothetical transfer of 10% and 30% of the credit exposure to non-financial entities from the existing ones to the next two categories with higher risk.

Chart 23
Effects on the capital adequacy ratio from reclassification of the largest credit exposures to non-financial entities (including the connected entities) in a higher risk category
in %



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

Chart 24
Capital adequacy ratio before and after hypothetical shocks of selected segments of credit exposure
in %



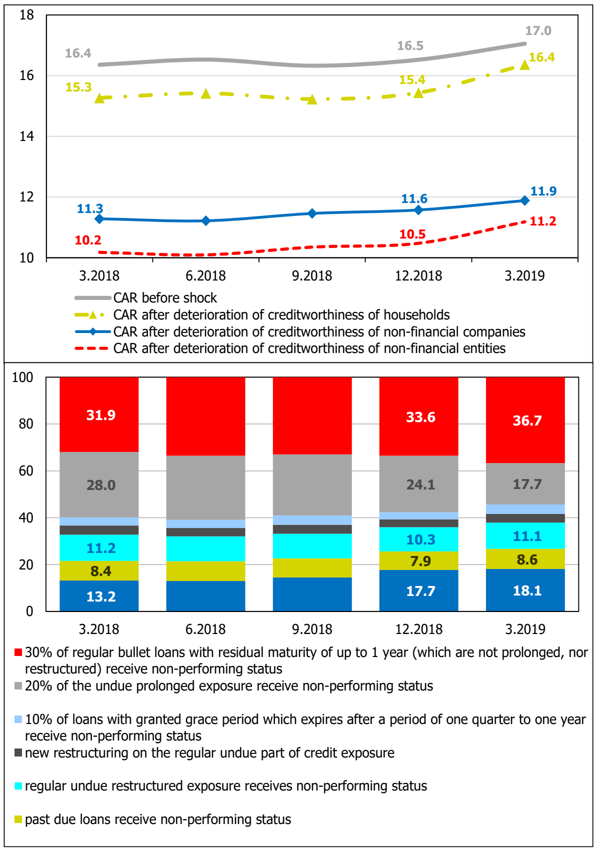
Source: National Bank's Credit Registry, based on data submitted by banks.

adequacy ratio reduces the most, in case of assumed deterioration of the quality of the credit exposure to those activities where the concentration of the total credit exposure is the largest. Thus, the capital adequacy rate is decreased by 16.1% amid deterioration of the credit exposure quality to trade activity (15.6% on 31.12.2018), 16.3% to "Industry" (15.8% on 31.12.2018) and 16.6% to construction sector (16.1% on 31.12.2018). The exposure based on the consumer loans has the greatest negative impact on the capital adequacy rate. The capital adequacy rate has decreased to 15.9% (15.4% on 31.12.2018) amid deterioration of the quality of exposure to households (amid transferring of 30% of the credit exposure from current to the next two categories with high risk).

The banking system resilience is also examined by extreme simulation based on a combination of seven hypothetical shocks of worsening of the quality of the credit portfolio to the non-financial sector[43]. With this stress simulation, the capital adequacy ratio reduces by 5.9 percentage points, to 2%, which is a better result compared to the end of 2018 (10.5%). The highest negative effect on the capital adequacy ratio with pronounced uptrend is that of the assumed deterioration in the quality of bullet loans, which contributes with more than one third of the total reduction of capital ad equacy in the combined shock. In addition, the negative effect of the hypothetical deterioration of the quality of prolonged loans (which accounts for

[43] The seven hypothetical shocks are the following: 1. complete default on the existing non-performing loans; 2. the total past due loans receive non-performing status; 3. the total regular undue restructured exposure receives non-performing status; 4. banks carry out new restructuring of the regular undue part of the credit exposure which according to the volume correspond with the amount of restructured exposures which received a non-performing status, from the previous item; 5. 10% of loans with granted grace period which expires after a period of 1 quarter to 1 year receive a non-performing status; 6. 20% of the undue prolonged exposure receives a non-performing status; 7. 30% of regular bullet loans with residual maturity of up to 1 year (which are not prolonged, nor restructured) receive a non-performing status.

Chart 25
Capital adequacy ratio before and after hypothetically combined shocks of various credit exposure segment (up) and contribution of individual shocks to the reduction of the capital adequacy ratio (down)
in %



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

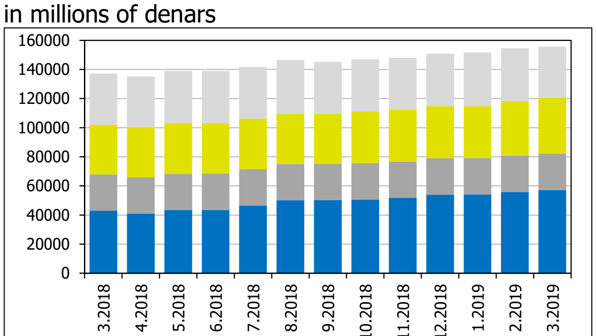
17.7% of the total decrease in the capital adequacy ratio of the banking system), despite the significantly decreased contribution (of 6.4 percentage points) due to the decrease of these loans to households.

2. Liquidity risk

In the first quarter of 2019, the Macedonian banks had a solid amount of liquid assets, maintaining the liquidity risk within the acceptable frames. Banks' total liquid assets continued to grow both on annual and quarterly basis, but slower compared to the previous quarter. In the structure of liquid assets the greatest increase was noted in increased placements in available overnight deposits with the National Bank, with a significant contribution of the increased investments of Banks in government securities (placements in government Eurobonds issued on foreign markets[44]). The increase of liquid assets indicated improvement in the liquidity ratio more pronounced in Denar liquidity ratio. The share of liquid assets in the total assets of the banking system grew, and a moderate upward movement was also registered with the indicators of coverage of short-term liabilities and household deposits with liquid assets. Analyzed by contractual residual maturity, the assets with greater residual maturity increased, while liabilities with greater residual maturity decreased. The satisfactory level of liquid assets available to banks which facilitate their smooth operations is also confirmed by the simulations of combined liquidity shocks, whose results indicate an appropriate liquidity risk management by banks and a satisfactory resilience to the assumed extreme liquidity outflows.

2.1. Dynamics and composition of liquid assets

Chart 26
Structure of liquid assets
in millions of denars



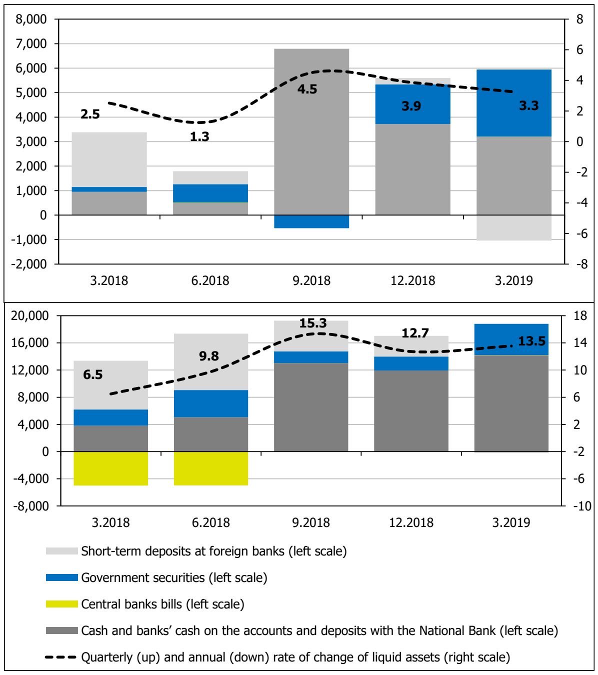
Source: National Bank, based on data submitted by banks.

At the end of the first quarter of 2019, the liquid assets[45] of the banking system amounted to Denar 155,706 million and registered a quarterly increase (of Denar 4,906 million or 3.3%), for the sixth consecutive quarter. The annual liquidity growth totaled Denar 18,555 million, or 13.5%. Analyzing the structure of liquid assets, the quarterly growth was mostly due to the increased placements in overnight deposit facility with the National Bank, which almost entirely contributed to the growth of liquid assets on an annual basis. The increased placements of banks in government bonds have had a significant contribution to the growth of liquid assets, primarily the investments in Macedonian Eurobonds issued on foreign markets. Some of the banks' liquid assets component decreased (short-term foreign currency assets in foreign

[44] The Decision on the transition to the second phase of the association between the Republic of Macedonia and the European Community and its member states (Official Gazette of the Republic of Macedonia No. 17/19) from 25.1.2019, allowed the domestic banks to freely buy and trade domestic government Eurobonds issued to foreign markets.

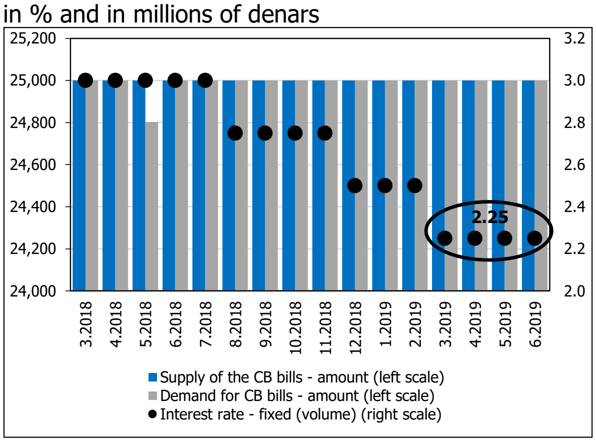
[45] The liquid assets encompass: 1) assets and claims on the National Bank, which include cash, assets on the accounts of banks with the National Bank, deposit facility with the National Bank and CB bills; 2) short-term deposits with foreign banks, including the assets of the banks on their correspondent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

Chart 27
Quarterly (top) and annual (bottom) change of liquid assets, by component
in millions of denars and in %



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

Chart 28
CB bills of the National Bank, supply, demand and interest rate
in % and in millions of denars



Source: National Bank.

banks and placements of banks in treasury bills), and some of them were almost unchanged (investments in CB bills).

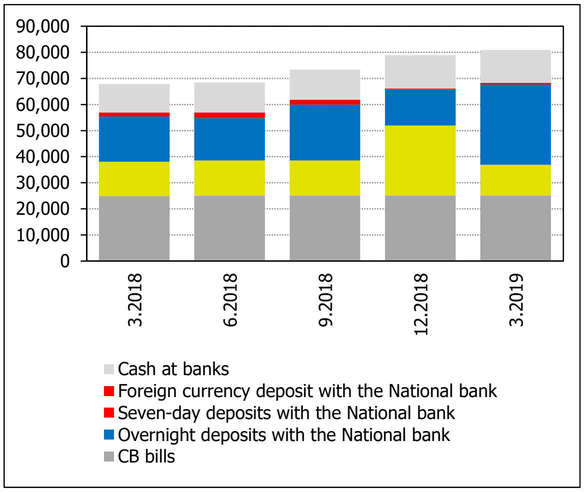
Cash and bank assets with the National Bank are still predominant in the structure of banks' liquid assets, with a share of 52.7% at the end of the first quarter of 2019. The main carrier of the quarterly increase of total cash and banks' assets placed at the National Bank in the first quarter of the year (by Denar 3,200 million, or by 4.1%) was the growth of banks' placements in available overnight[46] deposits with the National Bank which are twice as larger compared to previous quarter. At the same time, the banks' investments in available seven-day deposits with the National Bank were almost unchanged, while the assets on accounts with the National Bank were cut by half, i.e. allocated to overnight deposits available in the National Bank. The banks' investment in CB bills are almost unchanged for seven quarters in a row. The CB bills auctions were still conducted through a tender with a limited amount (maintained at the level of Denar 25,000 million) and fixed interest rate (decreased in March 2019 by 0.25 percentage points). The decision on reducing the key interest rate of the National Bank was adopted without any pressures to the foreign currency market by the foreign sector and stable expectations of domestic entities, amid further growth of total deposits and low and stable inflation rate.

Investments in government securities are an important option for banks in operational management of their liquidity position. The increase of banks' investments in the government securities in the first quarter of the year (by Denar 2,745 million or by 7.6%), was almost entirely conditioned by the investments in Macedonian Eurobonds issued by foreign countries, which in the banks' balances[47], on 31.3.2019 amount to Denar 3,039 million.

[46] According to the Decision on deposit facility (Official Gazette of the Republic of Macedonia No. 49/12, 18/13, 50/13, 166/13 and 35/15), the banks could place deposits with the National Bank every working day with a maturity of one business day and once a week with a maturity of seven days. These deposits are placed without the possibility of partial or full early withdrawal. In the first quarter of 2019, the interest rates on these deposits remained unchanged (from the latest change in March 2018) and equaled 0.15% on overnight deposits and 0.30% on seven-day deposits.

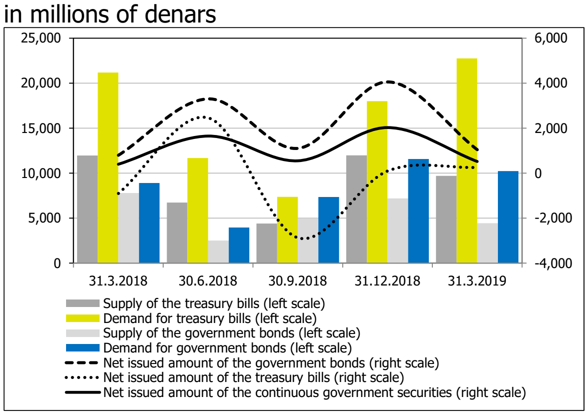
[47] Their share in total placements in government securities is 7.9%, on 31.3.2019.

Chart 30
Assets and claims of banks from the National Bank, by instrument
in millions of denars



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

Chart 29
Net issued amount and supply and demand of government securities on the domestic market of continuous securities
in millions of denars



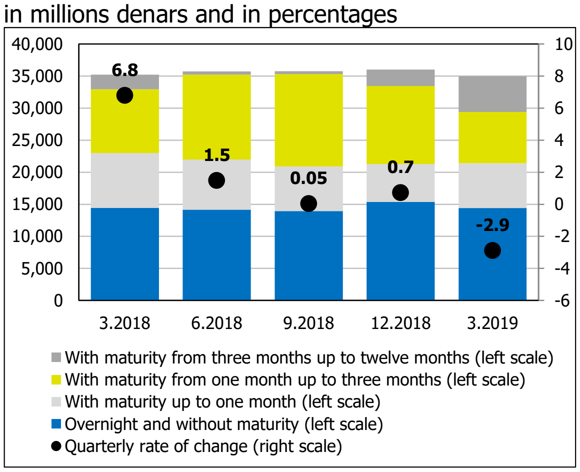
Source: Ministry of Finance and National Bank.

Investments in government bonds issued by foreign countries were almost unchanged and had a modest share of only 1.7% in the total portfolio of government securities of banks. In the first three months of 2019, on the domestic market of government securities the downward trend of banks' shares on the primary market of government bonds[48], continued, where the total net issued amount[49] of government securities increased by Denar 520.2 million. The banks' investments in treasury bills quarterly declined (by Denar 647 million or by 3.9%), and the placements in the government bonds with foreign currency clause had a far smaller decline (Denar 18 million or by 0.5%), while the investments in Denar government bonds increased moderately (Denar 357 million or by 2.4%). Such developments resulted in certain extension of the maturity of the banks' placements in Denar government securities.

Short-term assets placed in foreign banks still represent main part of the foreign currency component of banks' liquid assets[50]. In the first quarter of 2019, these assets decreased (by Denar 1.040 million, or by 2.9% compared to the end of 2018), but remained at a stable level (with a share of 22.5% in total liquid assets), which enables their use both for operational purposes and for the needs of liquidity and currency risk management. The largest portion of short-term assets in foreign banks are placed overnight i.e. are in the corresponding accounts of the domestic banks abroad, notwithstanding the quarterly fall.

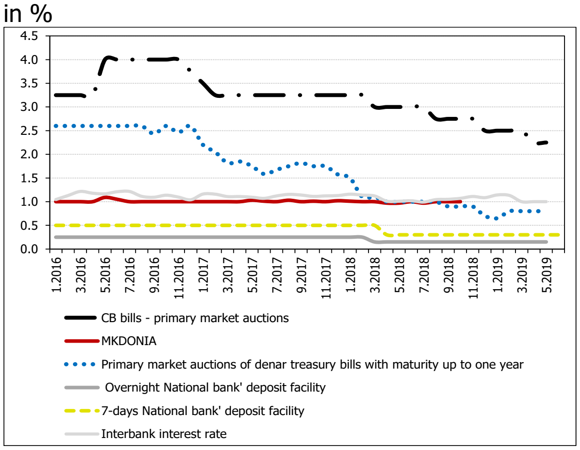
[48] At the end of March 2019, the share of banks in issued continuous government securities was 35.6% (for comparison, 36.1% on 31.12.2018).
[49] Net issued amount of government securities is calculated as the difference between the realized amount at the auctions of government securities for a certain time period and the amount of government securities that falls due in the same time period.
[50] Foreign currency liquid assets comprise short-term deposits with foreign banks, including assets on corresponding accounts, investments in foreign government securities and domestic government Eurobonds issued on foreign markets, foreign currency cash and foreign exchange account with the National Bank and placements of foreign currency deposits with the National Bank.

Chart 31
Short term assets in foreign banks, structure and growth
in millions denars and in percentages



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

Chart 32
Movement of domestic interest rates
in %



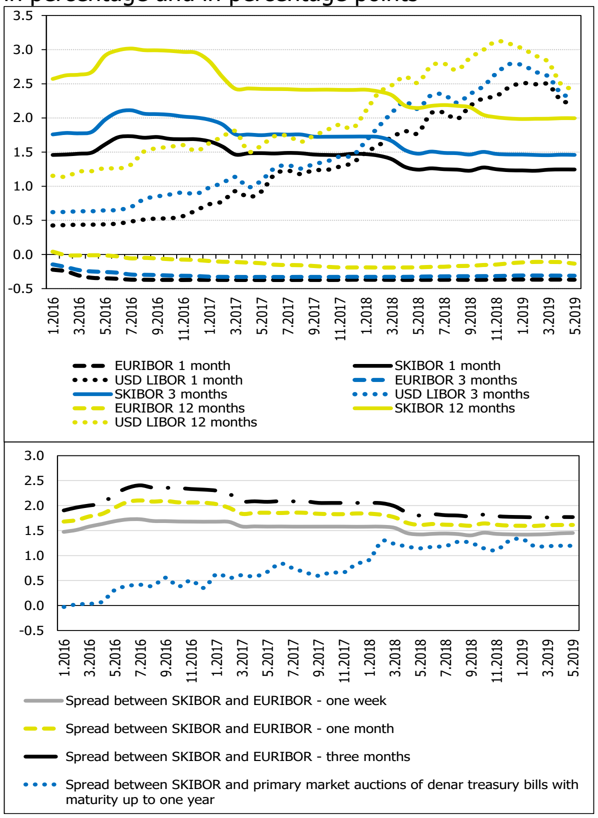
Source: National Bank.

One of the key motives of the banks to direct their liquid assets to the available financial instruments is the yield offered by individual instruments, which primarily depends on fluctuations of interest rates. During the first quarter of 2019, the domestic interbank deposit market interest rate remained almost unchanged. The indicative interest rate for interbank deposit trading (SKIBOR[51]) remained low and stable. Compared to the previous quarter the total transaction interbank interest rate (MBKS[52]) also remained stable and quarterly averaged 1.1%.

Monetary policy in most developed countries remained unchanged in the first quarter of 2019. The interest rates in interbank markets in the euro area remained extremely low, even negative for certain maturities, which corresponds to the unchanged setup of the monetary policy of the ECB in the first couple of months of 2019 (keeping the interest rate on the main refinancing operations at the level of the last change in March 2016, when it was reduced from 0.05% to 0.00%). Continuing the trend of the Euribor movement in the negative zone mainly reflects expectations that the ECB will keep interest rates at a low level longer than announced[53]. At the same time, amid more pronounced negative global risks and lower inflation rate, with moderate employment growth, the FED decided to retain the current interest rate in the range from 0.25 to 0.5%.

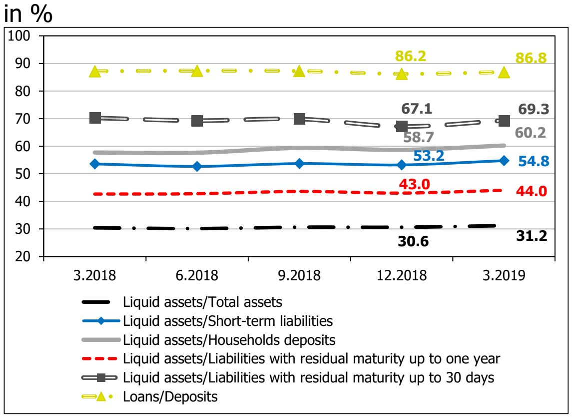
[51] SKIBOR (Skopje Interbank Offered Rate) is a reference interest rate on the denar money market and is an interbank interest rate at which one reference bank is ready to sell denar liquidity to another reference bank. Pursuant to the new Rules on Selection and Obligations of the Reference Banks Setting the Interest Rates for the Calculation of SKIBOR and the Calculation Process of SKIBOR, adopted on 22 August 2018 by the Macedonian Banking Association and effective from 1 October 2018, reference banks are obliged to quote interest rates for: one week, one month, three months, six months and twelve months.
[52] MBKS is the interbank interest rate for trading on the interbank deposit market.
[53] At the meeting in March 2019, the European Central Bank announced that the key interest rate will remain unchanged at least until the end of the year.

Chart 33
Movement of SKIBOR, EURIBOR and LIBOR for US-dollar (up) and the spread between SKIBOR and EURIBOR, for selected maturities (down)
in percentage and in percentage points



Source: The National Bank and the website of the European Money Markets Institute for EURIBOR and the website of the Federal Reserve Bank of St. Louis (so-called FRED) for LIBOR for US dollars.

Chart 34
Liquidity indicators of the banking system
in %



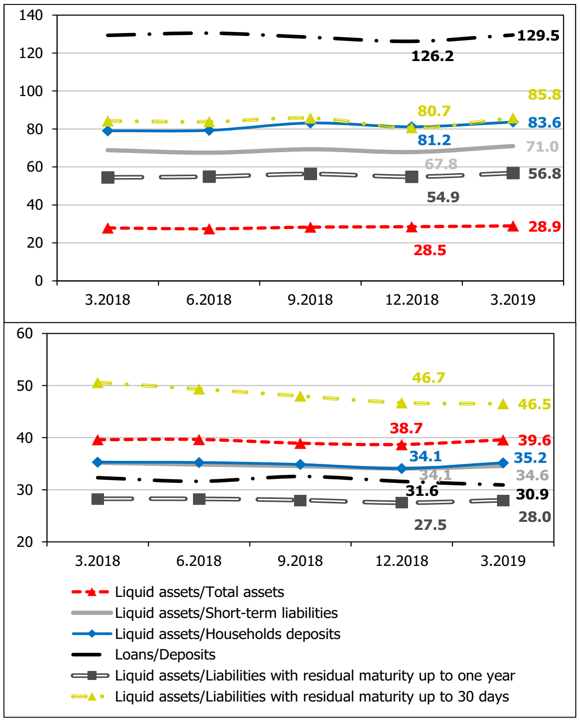
Source: National Bank, based on data submitted by banks.

2.2. Liquidity ratios

In the first quarter of 2019, the growth of banks' liquid assets contributed to improvement of all liquidity[54] ratios. However, the improvement of liquidity ratios of the banking system was moderate without major shifts from their usual height. The share of liquid assets in total bank assets remained at nearly one third. The coverage of short-term liabilities and deposits of households with liquid assets is slightly above 50%, while the coverage of liabilities with contractual residual maturity up to 30 days registered the fastest quarterly growth and

[54] The calculation of liquidity ratios of the banking system does not include resident interbank assets and liabilities.

Chart 35
Banking system liquidity indicators, according to currency structure - Denars (top) and foreign currencies (bottom)
in %



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

reached almost 70%[55]. The ratio between loans and deposits on a banking system level is constantly below 100% and indicates acceptable liquidity risks frameworks as well as stable liquidity management by banks.

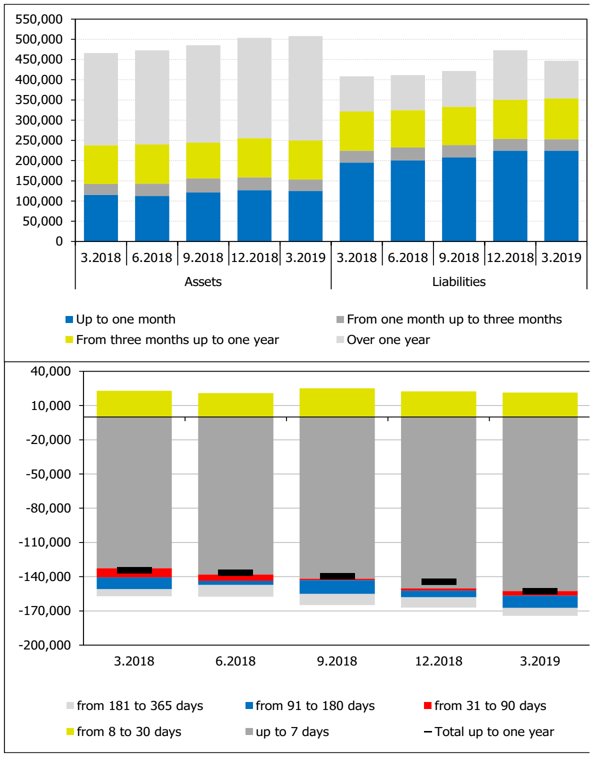
In terms of currency characteristics of liquid assets and liabilities, in the first quarter of 2019, the Denar liquidity ratios[56] had a slightly pronounced increase compared to the foreign currency liquidity indicators due to the higher absolute quarterly growth of liquid assets in Denars. At the same time, denar liquidity ratios 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.

Regulatory liquidity ratios of the banking system, presented as ratios between assets and liabilities that mature in the next 30 days and 180 days, and in the first quarter of 2019, are above the minimum requirement of 1, thereby confirming the sufficient amount of liquidity available to the Macedonian banking system, which allows banks to carry out their liabilities.

2.3. Maturity structure of assets and liabilities

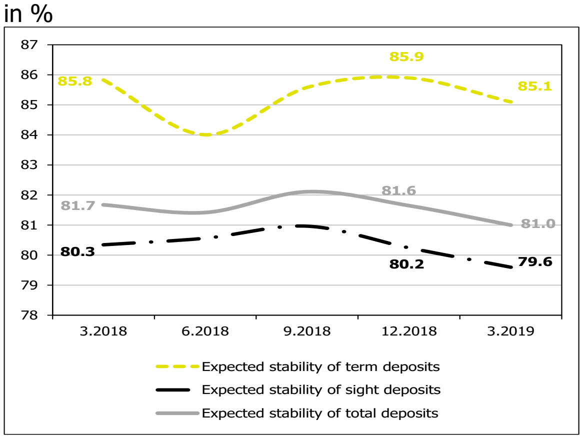
[55] Analyzed by bank, as of 31.3.2019, the share of liquid in total assets ranges between 20.1% and 50.1%, with a median of 28.5% (March 2018: between 13.2% and 47%). The coverage of short-term liabilities with liquid assets ranges between 41.5% and 89.6%, with a median of 52.4% (March 2018: between 26.4% and 118%), the coverage of liabilities with residual contractual maturity up to 30 days between 51.1% and 144.6% with a median of 63.4% (March 2018: between 29.5% and 168.6%). "MBPR" AD Skopje is excluded from this (starting June 21, 2019, the name of the bank is changed to "Development Bank of North Macedonia").
[56] Claims and liabilities with FX clause are considered as denar claims and liabilities, since their cash flow is in denars.

Chart 36
Composition of assets and liabilities of banks according to their contractual residual maturity (up) and the gap between assets and liabilities, with contractual residual maturity of up to one year (down)
in % and in millions of denars



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

Chart 37
Expected stability of deposits with residual maturity up to three months by the banks
in %



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

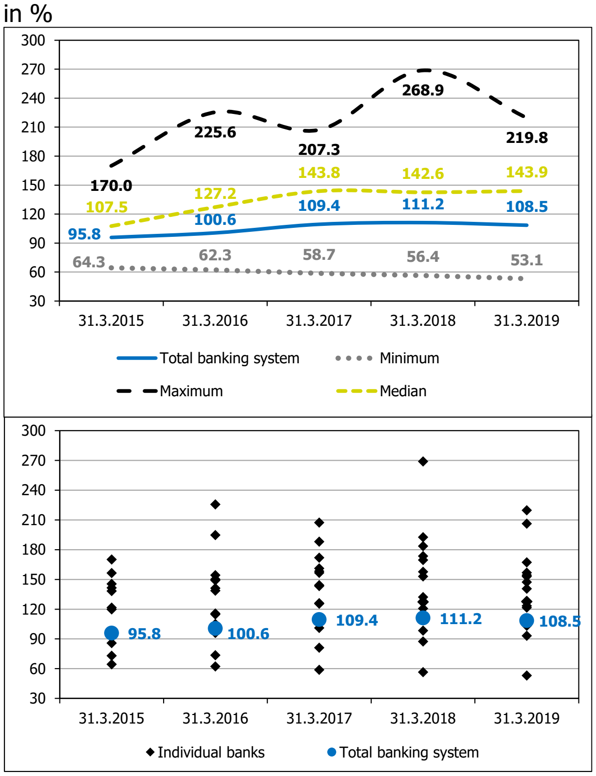
In the first quarter of 2019, there were no significant changes in the structure of assets and liabilities according to their residual maturity in most of the analyzed mature segments. There were major changes only in assets and liabilities with residual maturity of over one year, where the assets increased, while the liabilities decreased. However, the largest mismatch between assets and liabilities according to their contractual residual maturity is still registered in the maturity bucket up to seven days, which usually results from the inclusion in this maturity bucket of banks' liabilities on demand and without determined maturity (including transaction accounts). Usually, a positive gap in the contractual residual maturity of assets and liabilities was noticed in the only in the maturity segment from 8 days to one month, mainly due to the fact that banks' investments in CB bills of the National Bank are classified in this maturity segment.

The relative importance of the gap between foreign currency assets and liabilities is almost two times more pronounced compared to the gap between denar assets and liabilities, which is mainly explained by the accepted business model of domestic banks, which is also based on currency and maturity transformation of foreign deposits of domestic non-financial entities in placements with Denar component.

According to the bank's expectations, the cumulative gap between assets and liabilities in all maturity segments is positive, which leads to the conclusion that banks continue to expect stability maintenance of deposits as the main source of financing their operations (more details in the annexes to this report). At the end of the first quarter of 2019, banks expect that 85.1% of time deposits with residual maturity up to three months (85.9% as of 31.12.2018) will be stable, i.e. remain in the banks, while for total deposits and demand deposits, the percentage of expected stability is somewhat smaller (81% and 79.6%, respectively), registering a slight deterioration compared to the previous quarter.

2.4. Stress-simulations for liquidity shocks

Chart 38
Reduction of liquid assets after the simulation for combined liquidity shocks (after all shocks), total banking system (up) and by bank (down)
in %



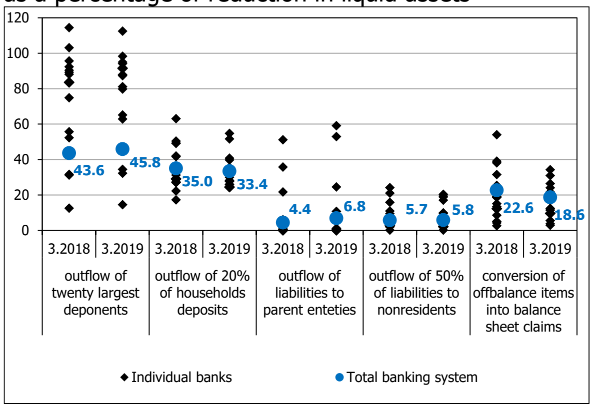
Source: National Bank calculations, based on data submitted by banks.

During the first quarter of 2019, the conducted stress simulations of liquidity shocks show that amid unfavorable shocks, the banks can maintain satisfactory liquidity and have sufficient liquid assets to repay 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, and full utilization (or 108.5% on 31 March 2019) of liquid assets would occur only at substantially extreme simulation of liquidity shock which covers combined outflows[57] of funds from banks on several grounds. Considering the extremity of assumption, for the purpose of this simulation, the usual coverage of liquid assets is extended with other financial instruments[58] owned by banks, for which it is estimated that banks will quickly and easily collect or turn into cash. In such a case, the banking system would have sufficient liquid assets, i.e. the reduction of liquid assets at the level of the banking system would be lower (98.4%) and a certain amount of liquid assets would be available.

At individual simulations of liquid shocks, the high level of liquidity which Macedonian banks have at their disposal provides settlement also of all assumed extreme liquidity outflows. The sharpest decline in liquid assets occurs amid outflow of the deposits of the twenty largest depositors, but the importance of this simulation to individual banks is different, given the differences in the degree of concentration of deposits. On the contrary,

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

Chart 39
Contribution of shocks to the decline in liquid assets in the simulation of a combined liquidity shock, by bank
as a percentage of reduction in liquid assets



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

simulated materialization of reputation risk and loss of confidence of the population in the banks represented by an outflow of 20% of household deposits shows a significantly greater similarity in the results for individual banks, thereby confirming the importance of deposits to the financing of the banks' activities. Hence, the sustainability of the liquidity position of banks, as well as the potential growth of their activities, are directly dependent on developments and the banks' participation in the deposit market and the maintenance of the confidence of domestic depositors in Macedonian banks.

In the case of assumed conversion of certain off-balance sheet liabilities of the banks into on-balance sheet claims[59], the banks would spend about 20% of their liquid assets, which although less compared to the simulations of outflow of deposits[60], can be considered significant. The small share of liabilities to non-residents, as well as to parent entities in the structure of the total sources of funding for banks, causes moderate impact of the shocks associated with them on the overall result of this simulation.

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

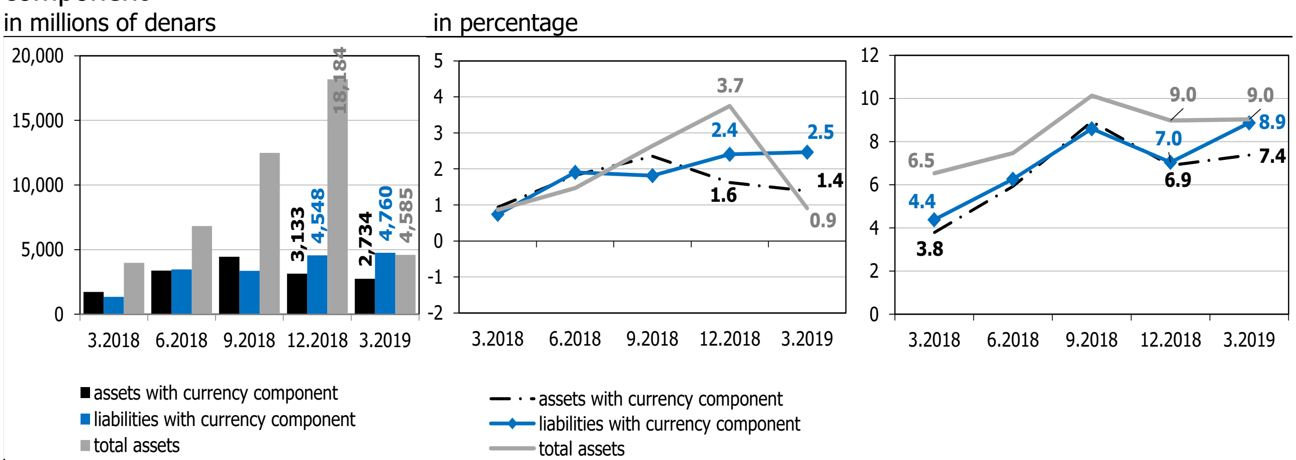
[60] During a simulation of outflow of the deposits of the 20 largest depositors, the liquid assets of the banking system are reduced by 45.8%, while in case of assumed outflow of 20% of the household deposits, liquid assets are reduced by 33.4%.

3. Currency risk

The already low direct exposure of the banking system to currency risk, was reduced in the first quarter of 2019 and the ratio between the aggregate currency position and own funds of each bank is within the prescribed limit (30% of banks' own funds). The gap between the assets and liabilities with currency component narrowed, reducing its ratio with the banking system's own funds. The share of assets and liabilities with currency component in total assets i.e. liabilities slightly increased in the first quarter of 2019. Since the share of loans with currency component to total loans is still high, the probability of achieving direct and indirect exposure to currency risk is low because of the used strategy of maintaining stable nominal exchange rate of the denar against euro.

The positive gap between assets and liabilities with currency component decreased by Denar 2.026 million or by 61.3% in the first quarter of 2019, as a result of the higher growth of liabilities with currency component (by Denar 4.760 million or by 2.5%)[61]compared to the growth of assets with currency component (by Denar 2.734 million or by 1.4%).[62] Thus, the reduced gap between assets and liabilities with currency component on the one hand and the growth of own funds of the banking system on the other hand, led to a **decrease of the share of the gap between assets and liabilities with currency component in banks' own funds to 2.1%.**

Chart 40
Quarterly (left and middle) and annual (right) growth of assets and liabilities with currency component

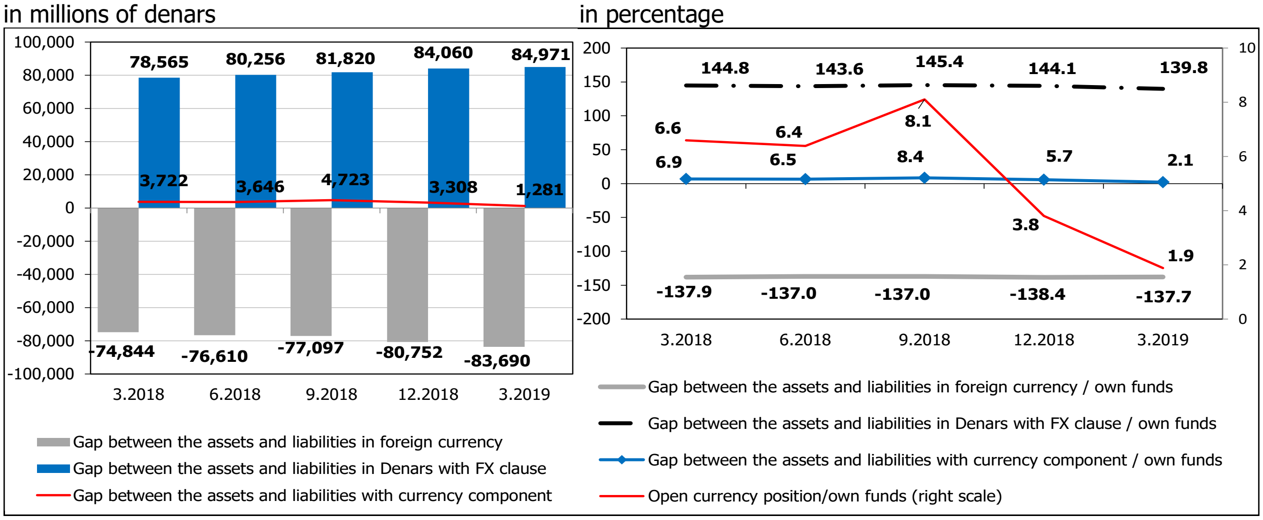


Source: National Bank, based on data submitted by banks.

[61] The current accounts in foreign currency to non-financial companies (by 8.3% or by Denar 1.794 million) and natural persons (by 3.9% or by Denar 1.210 million) had the largest contribution in the growth of liabilities with currency component. At the same time, the liabilities on foreign currency loans increased by 4.6% or by Denar 880 million.

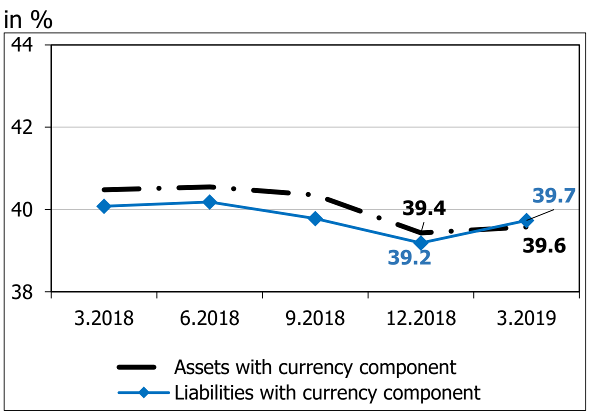
[62] In the first quarter of 2019, the banks placed assets in government Eurobonds, in total amount of Denar 3.039 million (according to accounting value in banks' balance sheets). The loans with foreign currency clause also increased by Denar 1.362 million, or by 1.6%. In contrast, the placements in correspondent accounts and short-term deposits abroad decreased by Denar 1.040 million, or by 2.9%.

Chart 42
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)



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

Chart 41
Share of the assets and liabilities with currency component* in the total assets of banks



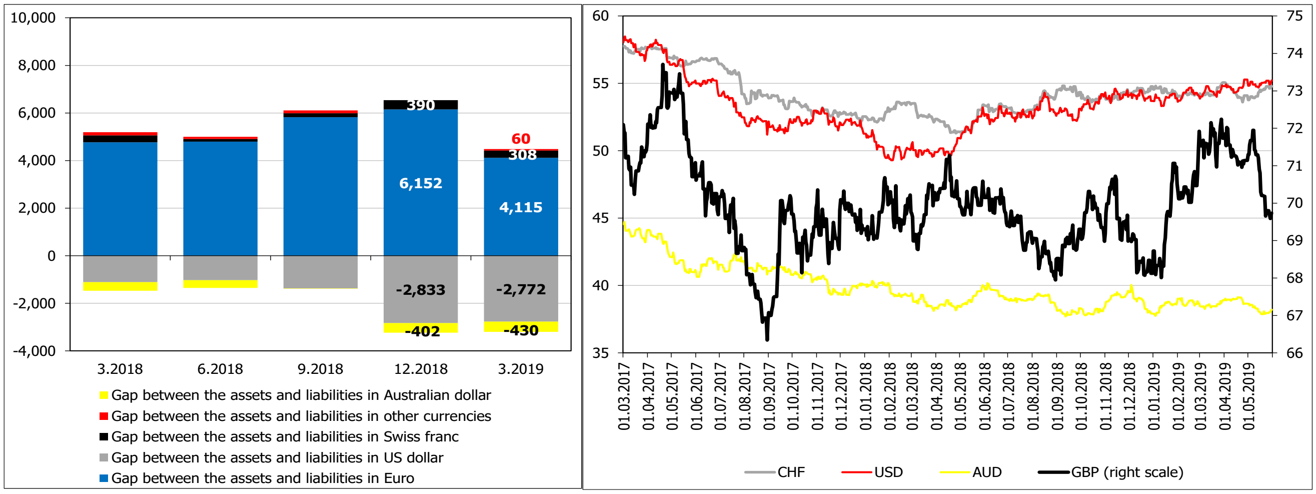
Source: National Bank, based on data submitted by banks.
*Within the assets, loans are on a net basis (i.e. adjusted for the impairment). MBDP AD Skopje is not included.

After the larger decline of assets and liabilities with currency component in total assets of the banking system realized at the end of 2018, their share[63] increased in the first quarter of this year, due to their higher growth rates (2.5% for liabilities and 1.4% for assets with currency component) compared to the growth rate of total banks' assets (0.9%).

Analyzed by currencies, the euro which is the most common foreign currency in the banks' balance sheets, fully contributed to narrowing of the gap between assets and liabilities with currency component (Denar 2.037 million). [64]

[63] The growth of share of liability with currency component in total assets amounts 0.5 percentage points, while the growth of share of assets with currency component is only 0.1 percentage point.
[64] The gap of the Swiss franc and Australian dollars also has narrowed, yet it is very small, i.e. 82 and 28 Denar, respectively.

Chart 43
Currency structure of the gap between assets and liabilities with currency component, by currency (left) and development of the exchange rate of the denar against US dollar, Swiss franc, British pound and Australian dollar (right)
in millions of denars / in denars



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

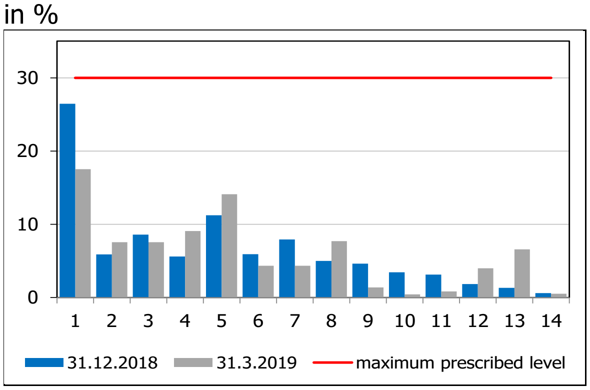
Table 3
Currency structure of assets and liabilities with currency component
in %

Currency	31.12.2018		31.03.2019	
	Assets	**Liabilities**	**Assets**	**Liabilities**
Euro	88.4	86.8	88.9	87.4
US dollar	6.8	8.4	6.8	8.3
Swiss franc	2.2	2.0	1.9	1.7
Australian Dollar	0.8	1.0	0.8	1.1
British pound	0.7	0.7	0.5	0.6
Other	1.1	1.0	1.0	1.0
Total	**100.0**	**100.0**	**100.0**	**100.0**

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

Despite the dominant share of the euro in assets and liabilities with currency component of banks, with the strategy of maintaining a stable nominal exchange rate of denar against euro, the probability of meeting the currency risk is kept low. Movements in the value of other currencies have no significant impact on the operation of the domestic banking system, due to their low representation in in the banks' balance sheets.

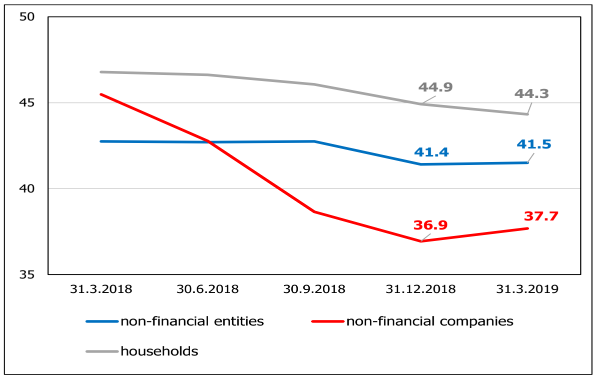
Chart 44
Aggregate currency position to own funds ratio, by bank
in %



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

The highest aggregate currency position by individual bank amounts 17.5% of banks' own assets which means that on 31.03.2019, all banks were complying with the prescribed limit of 30% of their own funds. The banks mostly maintain long position

Chart 45
Share of loans with currency component in total loans
in %



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

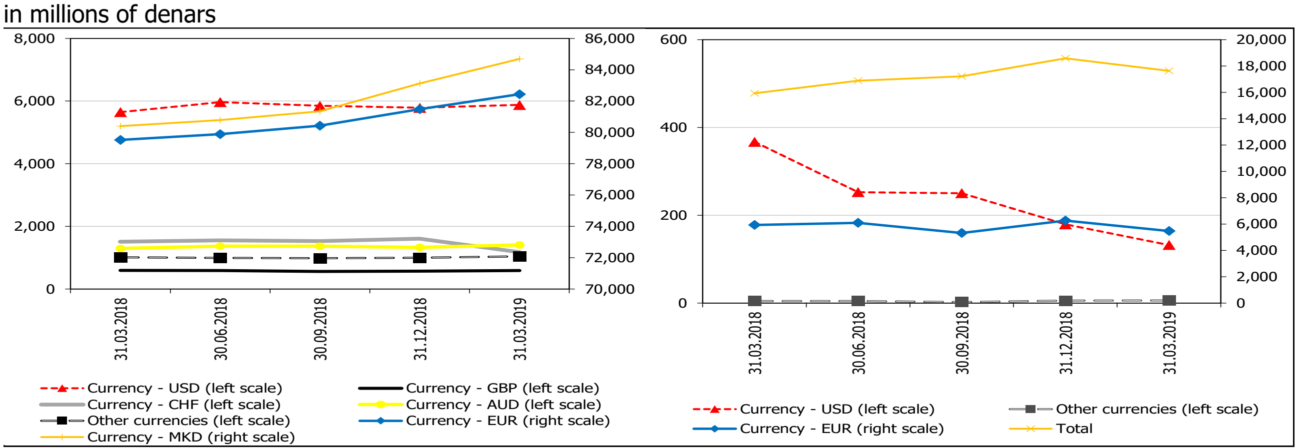
by individual currencies, except two banks which recorded short aggregate currency position. **The loans with currency component have a solid share (41.5%) in total loans to non-financial entities, indirectly exposing banks to currency risk.** However, given that more than 99% of the loans with currency component are loans in euros, in terms of application of a fixed nominal exchange rate of the denar against the euro, the probability of achieving currency risk in this loans is low.

Table 1
Classification of banks according to the share of the open foreign currency position by currency and the aggregate foreign currency position in the own funds

Items	Number of banks										
	Open currency position by currency / own funds										Aggregate currency position / own funds
	Euro		US Dollar		Swiss franc		Australian Dollar		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	
under 5%	5	2	9	5	8	5	7	2	11	3	7
from 5% to 10%	3	2									5
from 10% to 20%	2										2
from 20% to 30%											
over 30%											

Source: NBRNM, based on data submitted by banks.

Chart 46
Deposits in denars and with currency component of the natural persons (left) and non-financial corporations (right)
in millions of denars

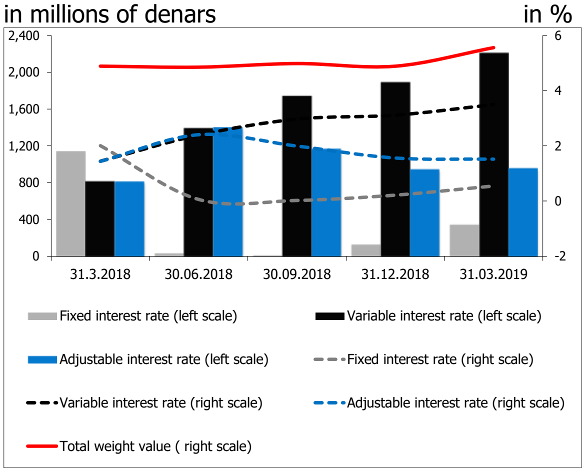


Source: National Bank, based on data submitted by banks.
The deposits do not include transaction accounts of the natural persons and non-financial corporations

4. Interest rate risk in the banking book

The weighted value of the portfolio of banking operations as a measure for the risk exposure to changes in interest rates, increased in the first quarter of 2019, both in absolute terms and in terms of own funds of the banking system. The increase in the risk exposure to changes in interest rates arises from widening the gaps between interest-sensitive assets and liabilities in all interest rates, but also due to the structural change of the gap, analyzed by the period until the next revaluation of the interest rates' height. Widening of the gap between the interest-sensitive assets and liabilities is mostly due to the higher growth of investments in deposits with fixed interest rates, compared to the lower growth of total interest-sensitive liabilities, most of all, to collected deposits. In terms of the time period until the next revaluation of the interest rate height, the gap between active and passive positions up to 1 month significantly decreased in the first quarter of 2019, at the expense of the growth of the gap with time period from 1 to 12 months. On an aggregated basis, the banking system is exposed to interest rate risk, which would be achieved in relatively short term, given the high positive gap between active and passive positions where the time period until the next revaluation of interest rates is from 3 to 12 months.

Chart 47
The total weighted assets of the banking book*, by interest rate type, in absolute amount (left scale) and relative to own funds (right scale)
in millions of denars in %



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

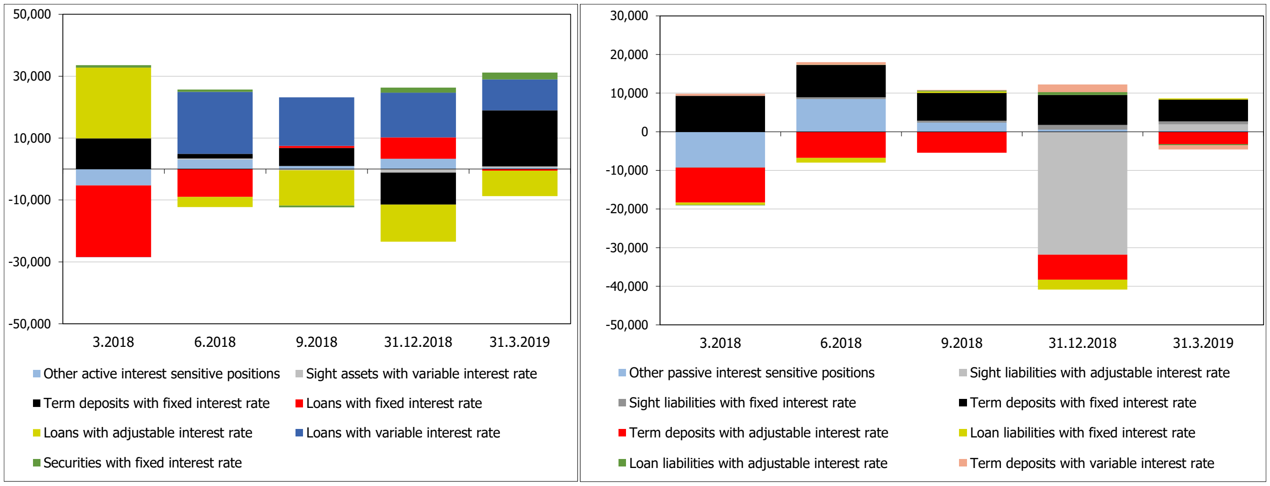
The total weighted value of the banking book recorded a high quarterly growth of 18.3% or by Denar 543 million, which conditioned increase of the ratio between weighted value of the banking books and own funds, from 0.7 percentage points to a level of 5.6% on 31.03.2019.

Analyzing by banks, this ratio ranges from 0.4% to 10.9%, which is far below 20%[65]. On quarterly basis the weighted values of the banking books increase in all types of interest rates. However, the increase of the weighted value of the banking book with a variable interest rate (Denar 316 million, or by 16.7%) and fixed interest rate (Denar 214 million, or by 163.4%) is the most pronounced.

[65] 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 48 Quarterly changes of the interest sensitive assets (left) and liabilities (right), by type of instrument and type of interest rate

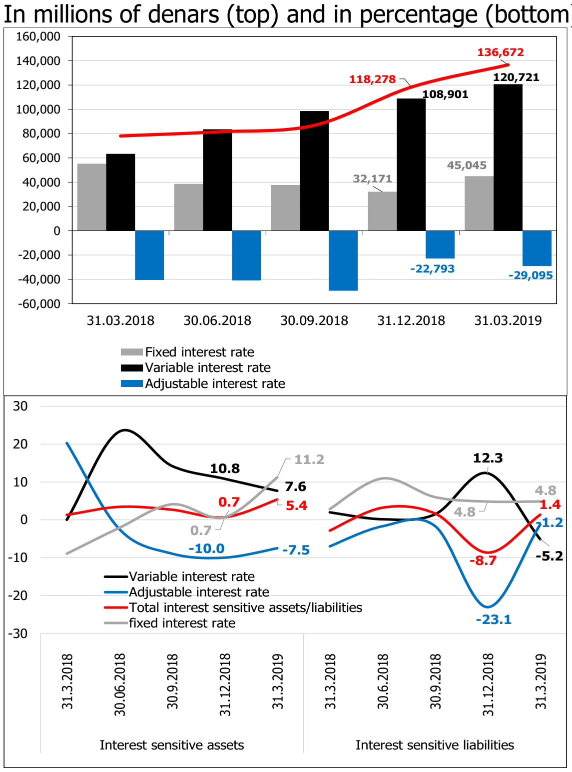
in millions of denars | in millions of denars



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

Chart 49
Interest-sensitive assets and liabilities by type of interest rate, gap (up) and quarterly growth (down)

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



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

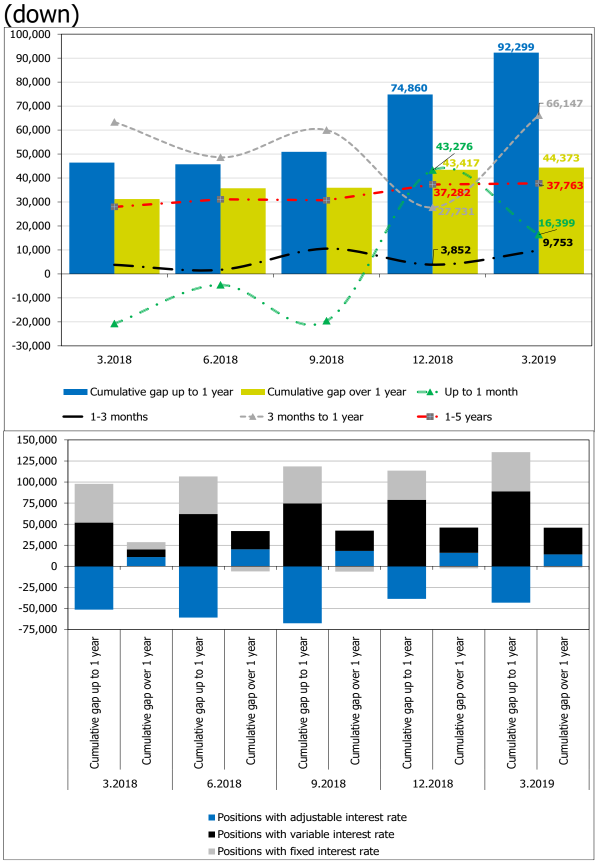
On the other hand, the quarterly growth of the weighted value of the banking book with adjustable interest rate was far more moderate and amounted to only Denar 12 million or 1.3%. Such movements are mostly conditioned by the widening of the gaps between interest-sensitive assets and liabilities, in all types of interest rates.

As a result, the total gap i.e. non-weighted position between interest-sensitive assets and liabilities recorded a quarterly growth of 15.6%, or by Denar 18.349 million. The positive gap in items with fixed interest rates widened by Denar 12.874 million, which stems from the high increase of placed termed deposits (by 48.3% or by Denar 18.121 million), on overnight deposits with the National Bank amid far more moderate growth of collected termed deposits (by 4.8% or by Denar 5.640 million). The positive gap in positions with variable interest rate widened by Denar 11.821 million, which is mostly due to the increase of loans with variable interest rate (by 7.3%, i.e. by 9.997 million), opposite the decrease recorded in collected term deposits with variable interest rate (by 7.4%, i.e. or by Denar 1.102 million). The increase of the placed loans with variable interest rate is in line with the similar amount of decrease of the placed loans with adjustable interest rate,

Chart 50

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

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



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

while the increase of collected termed deposits with fixed interest rate complies with the similar amount of decrease of collected termed deposits with adjustable interest rate[66]. However, the quarterly decrease of loans with adjustable interest rate is slightly higher compared to the decline of the collected termed deposits with adjustable interest rate, which caused widening of the negative gap between active and passive positions (items) with adjustable interest rates of Denar 6.302 million.

Analyzed by time period until the next revaluation of the interest rate height, the widening of the gap between interest-sensitive assets and liabilities was concentrated in items where the next revaluation of the interest rate is in the period from 1 to 12 moths (by Denar 44 billion[67]), mostly in both, items with variable interest rates[68] and adjustable interest rates[69]. The negative gap up to 1 year between items with adjustable interest rates theoretically exposes the banking system to a risk of rising interest rates, but generally this type of interest rates does not expose the banks to interest rate risk from the banking book due to the contractual possibility for their unilateral change. The gap between the interest-sensitive assets and liabilities with variable interest rates is positive (up to and over 1 year), which exposes the banking system to the risk of decrease of the interest rates. Finally, the positive gap in items with fixed interest rate, which since it is mostly concentrated on the maturity block up to 1 month, exposes the banking system to the risk of decreasing interest rates. Given that, on a weighted basis, the total gap between the interest-sensitive assets and liabilities is positive, the banking system is exposed to the risk of decreasing interest rates. Given the weighted

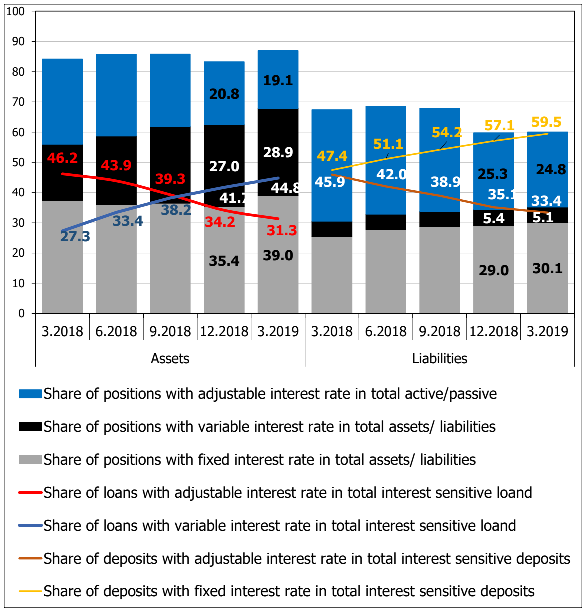
[66] In October 2016, the National Bank in a letter recommended banks not to apply adjustable interest rates in new loan and deposit agreements with customers, which was accepted by the banks.

[67] In calculating the weighted value of the banking book on the gaps between active and passive positions with longer period until next revaluation of the interest rate, higher weights (multipliers) are applied.

[68] The quarterly widening of the gap between active and passive positions with variable interest rate was mostly present in the segment where the next revaluation of the interest rates is in the period from 3 to 6 months, mostly due to the growth of placed loans with variable interest rate in this period of revaluation.

[69] The quarterly widening of the gap between active and passive positions with adjustable interest rate was mostly present in the segment where the next revaluation of the interest rate is in the period between 6-12 months, mostly due to the growth of placed loans with adjustable interest rate in this period of revaluation.

Chart 51
Assets and liabilities structure, by type of interest rate
in %

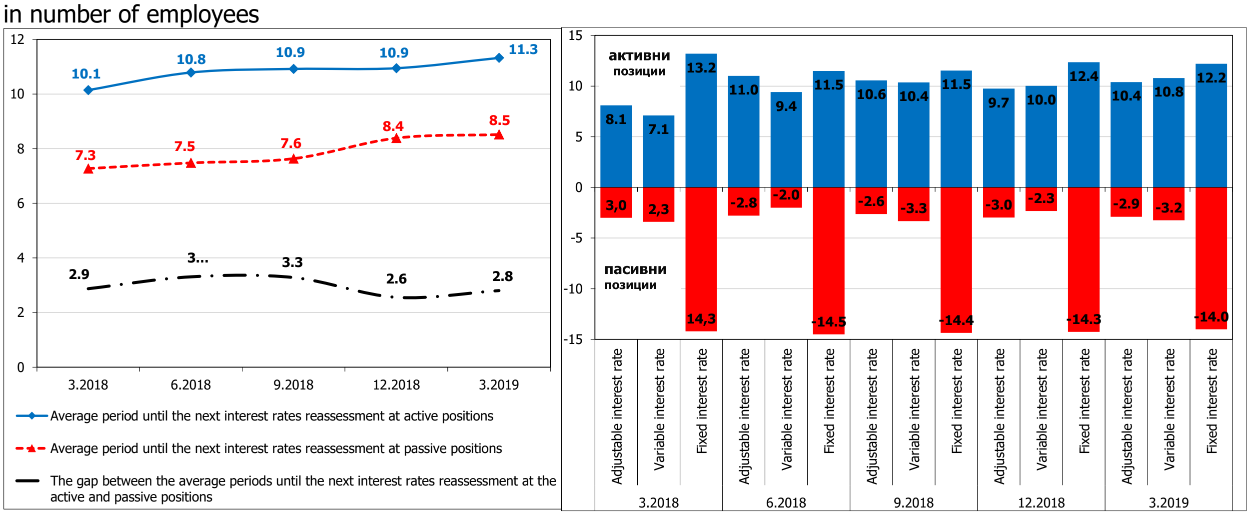


Source: National Bank, based on data submitted by banks.

basis, the total gap between the interest-sensitive assets and liabilities is positive, the banking system is exposed to the risk of interest rates cuts, which would be realized in a relatively short notice, given that the larger part of the gap is concentrated in the time period of 3 to 12 months. However, this period is somewhat expanded compared to 31.12.2018, when the positive gap between active and passive positions (items) was the highest in the period up to 1 month.

In the first quarter of 2019, a slight increase was recorded in the positive gap between the average periods until the next revaluation of interest rates in active and passive items. The gap between the average periods until the next revaluation of interest rates in active items increased by almost half month, while the gap between the average periods until the next revaluation of interest rates in passive items remained almost unchanged.

Chart 52 Average period until the next interest rates revaluation*, total (left) and by interest rate type (right)
in number of employees



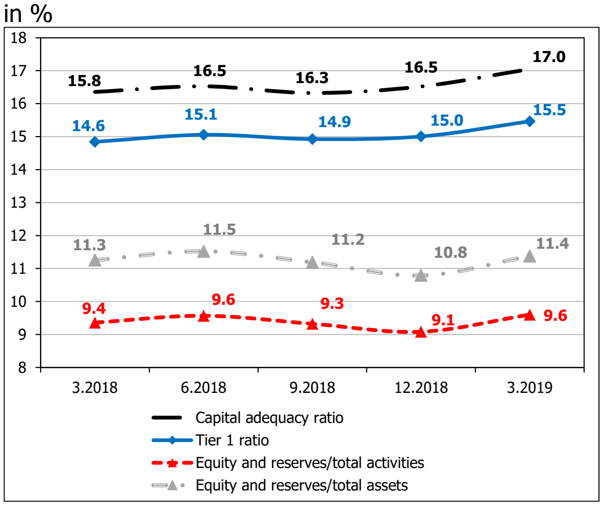
Source: National Bank, based on data submitted by banks.
* the average period till next reevaluation of the interest rates is calculated as share of the amount of the active/passive item in each of the maturity blocks in the total interest-sensitive assets/ liabilities, multiplied by maturity ofeach maturity block, expressed in months. In items with fixed interest rate, the average period till next reevaluation refers to the average remain-ing maturity period.

The indirect exposure to the risk of rising interest rates which stems from the presence of loans with adjustable and

variable interest rates is significant. On 31.03.2019, the total share of these loans in total loans amounted 76.1%, where 44.8% of the total loans have variable interest rate, while 31.3% have adjustable one. The significant share of variable interest rates (including the adjustable ones) in credit agreements with households emphasizes the meaning of the indirect credit risk for the banks, amid upward interest rate shift. The downward trend in the share of items with adjustable interest rate continued in the first quarter of 2019, both on the side of interest-sensitive assets and liabilities. Such trend is largely a result of the National Bank's recommendations to the banks to abandon the use of this type of interest rates, due to the potential reputation and legal risk they pose to banks. However, the gradual abandonment of unilaterally adjustable interest rates in newly concluded loan and deposit products emphasizes the need to strengthen the capacity of banks to manage the interest rate risk in the banking portfolio, especially in terms when it is noticeable that on the assets side this type of interest rate is replaced by using variable interest rates, while on the side of liabilities by using fixed interest rates.

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

Chart 53
Solvency ratios
in %



Source: National Bank, based on data submitted by banks.
* As of March 2017, domestic regulatory requirements regarding the solvency and capital adequacy of banks are in line with the requirements of the Basel 3 International Agreement.
** The core capital rate is at a very similar level as the regular core capital rate (which is not presented in the chart), ie it is higher by a negligible 0.1 percentage point (for certain dates, the difference between the two rates is even smaller).

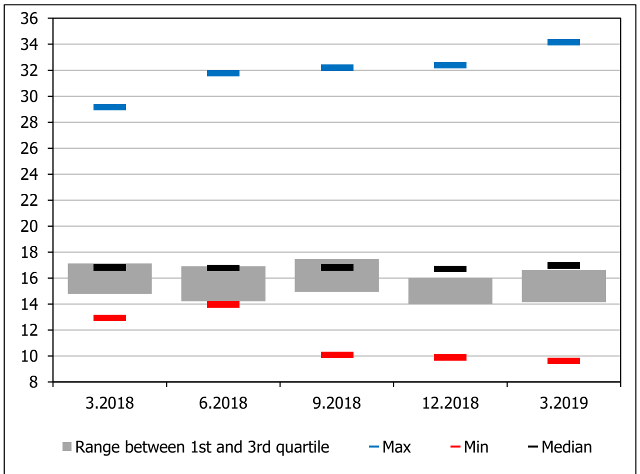
5. Insolvency risk

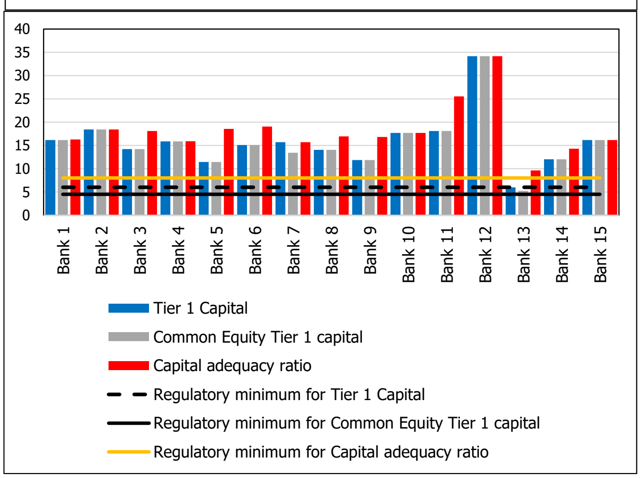
Solvency and capitalization ratios of the banking system increased in the first quarter of 2019 due to the growth of capital positions. The own funds of the banking system increased due to the new issuance of regular shares, issuance of bonds which fulfilled the conditions of being involved in own funds and accumulated profit. Amid modest quarterly growth the banking system's activities, the "available" capital above the determined regulatory and supervisory minimum significantly grew and increased its share in own funds to

10.5%. The conducted testing of the banking system's resilience to simulated shocks showed higher resilience compared to 31.12.2018.

Chart 54 Measures for capital adequacy ratio distribution in the banking system (up) and Tier 1 Capital, Common Equity Tier 1 capital and capital adequacy ratio by bank (down)

in %





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

As of 31.3.2019:

- The capital adequacy ratio ranges from 9.6% to 34.1%, per individual bank;
- The Tier 1 Capital ranges from 6.0% to 34.1%, per individual bank;
- The Common Equity Tier 1 capital ranges from 5.2% to 34.1%, per individual bank.

5.1. Solvency and capitalization ratios of the banking system and risk level of the activities

The solvency and capitalization ratios of the banking system improved in the first quarter of 2019, which stems from higher quarterly growth rates of capital items[70], compared to the growth of activities[71] of the banking system.

Namely, the banks' activities featured a slower quarterly growth compared to the previous quarter, usually associated to effect of certain seasonal factors at this time of the year. On the other hand, the capital items usually grow faster in the first quarter of the year, due to the reinvestments of banks' profits in the previous year. In the beginning of 2019 the regular growth of own funds was upgraded by issuance of new capital instruments (one bank issued ordinary shares[72], and other two banks issued bonds which met the conditions of being involved in calculating the regulatory capital[73])

As of 31.3.2019, the capital adequacy ratio equaled 17.0%, which is by 0.5 percentage points higher compared to the end of 2018. Both, the core capital rate and the regular core capital rate

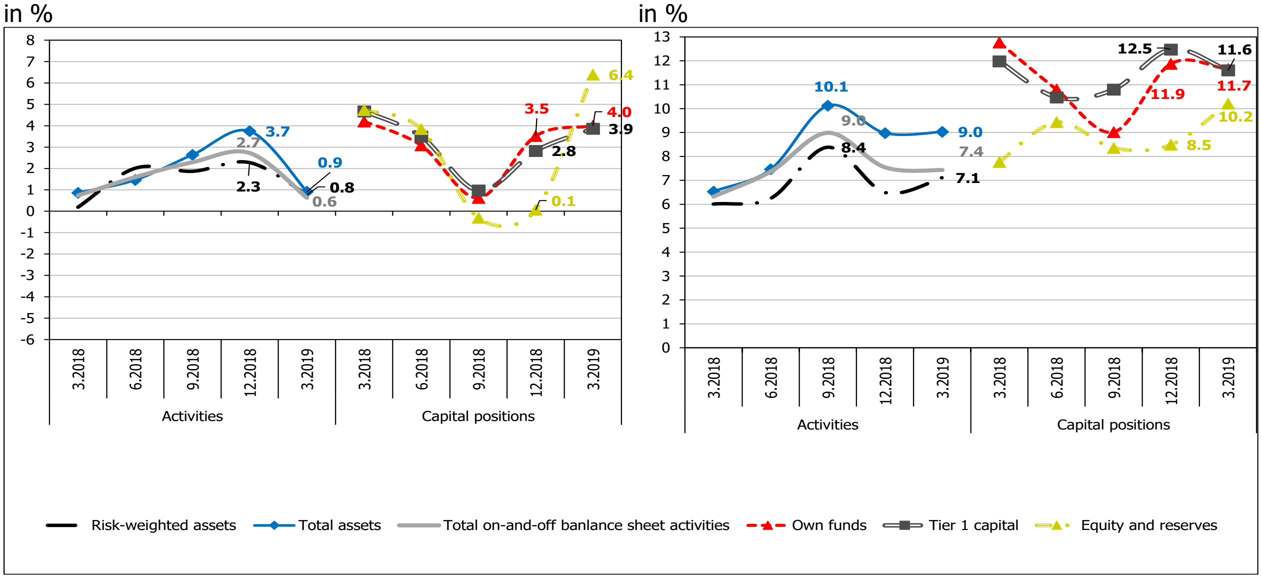
[70] The capital and reserves, core capital and own funds increased on quarterly basis by 6.4%, 3.9% and 4.0%, respectively.

[71] The assets, total balance and off-balance activities and the risk-weighted assets increased quarterly by 0.9%, 0.6% and 0.8%, respectively. The quarterly growth of risk-weighted assets (Denar 2.856 million) stems from the growth of credit risk weighted assets, which increased by 0.9% or by Denar 2.801 million.

[72] The issue of shares took place in February 2019 and was intended for a famous buyer, shareholder of the bank. For more information about this issue visit:
https://www.sec.gov.mk/media/files/2019/Месечен%20извештај,%20%20февруари%20%202019.pdf

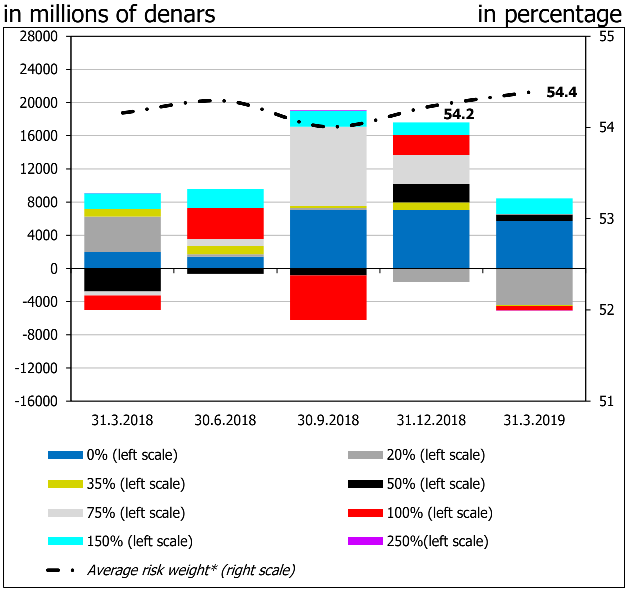
[73] One bank issued so called, perpetual bond which met both accounting and regulatory requirements for its involvement in the capital and additional core capital of the bank (for the needs of determining its own funds). For more information about the prospect of these bonds visit:
https://www.mse.mk/Repository/Catalogues/MK/Проспект%20(FINAL)_20.02.2019.pdf. The other bank issued a bond which has a liability treatment based on a subordinated debt instrument, but meets the regulatory requirements of involvement in the additional capital from the banks' own funds. For more information visit:
http://www.ccbank.mk/покана_за_запишување_и_уплата_на_долгорочни_должнички_хартии_од_вредност_-_конвертибилни_обврзници_по_пат_на_јавна_понуда.aspx.

Chart 56
Growth of components of solvency ratios, quarterly (left) and annually (right)



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

Chart 55
Quarterly changes in the total on-balance sheet and off-balance sheet exposure, by risk weights



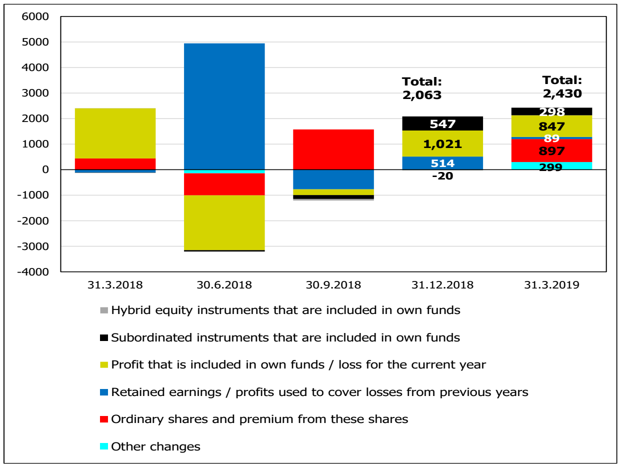
Source: National Bank, based on data submitted by banks.
*The average risk weight of total on-balance sheet and off-balance sheet exposure is calculated as a ratio between credit risk weighted assets and net on-balance sheet and off-balance sheet exposure of banks.

featured similar improvement on quarterly basis, which on 31.03.2019 reached levels of 15.5% and 15.4%, respectively. The banks are obliged to calculate the indebtedness rate (as a ratio between the core capital and the total on- and off-balance sheet exposure), reporting this rate semi-annually, as an average of the indebtedness rates determined at the end of each month of the first half[74]. Finally, the ratios between the capital and reserves and the total assets, i.e. total activities of the banking system increased by 0.6 and 0.5 percentage points, respectively and on 31.03.2019 reached levels of 11.4% and 9.6%, respectively.

The risk level of total on-balance and off-balance bank activities, measured as a ratio between credit risk-weighted assets and total on-balance sheet and off-balance sheet exposure increased by 0.2 percentage points and totaled 54.4% as of 31.3.2019. The reason for the growth is mostly due to quarterly increase of items with risk weight of 150% (small loans portfolio), of Denar

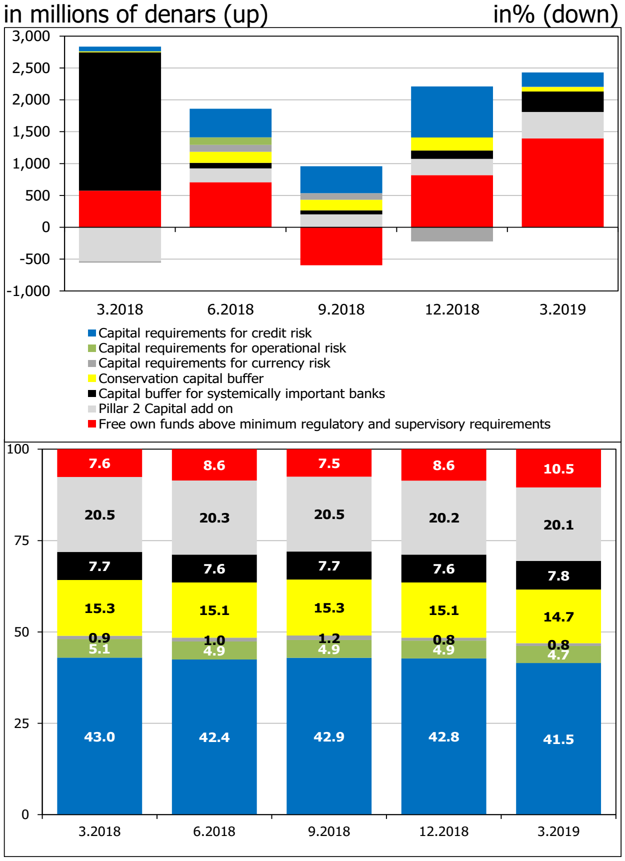
[74] The indebtedness rate of the banking system for the second half of 2018 (the last available data on this rate) was 10.5%. According to the Basel Capital Standard (Basel3), the indebtedness rate should be at least 3%.

Chart 57
Structure of the quarterly growth of own funds
in millions of denars



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

Chart 58
Quarterly growth (up) and structure (down) of own funds, by the requirement for covering risks and for maintaining the required capital buffers
in millions of denars (up) in% (down)



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

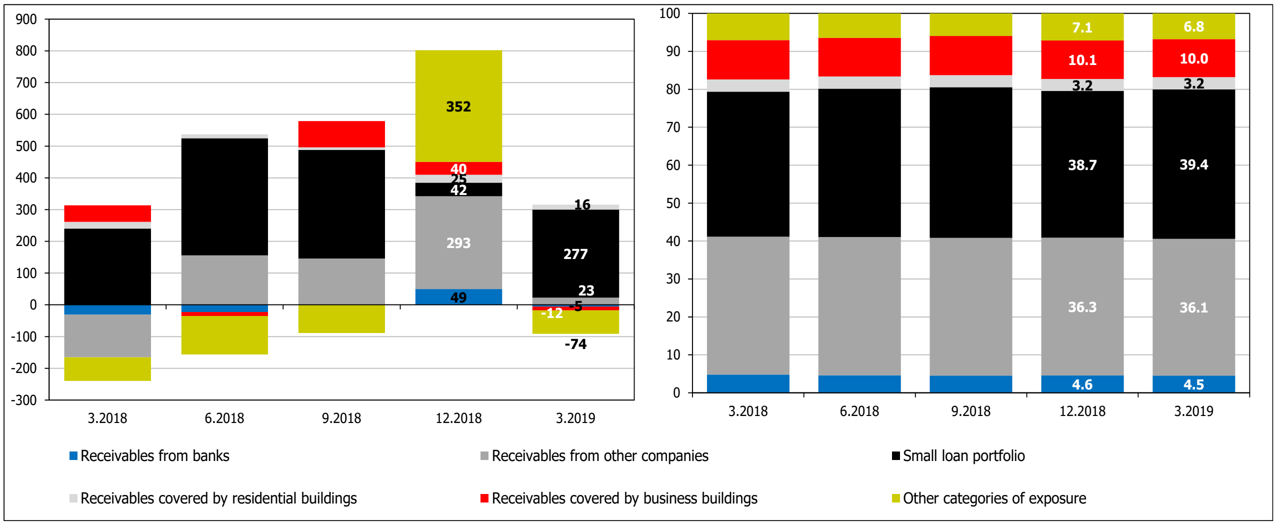
1.842 million (or by 6.7%), due to the increased credit activity of households. On the other hand, the activities with weighted risk of 0% recorded largest absolute increase, of Denar 5.731 million, or by 3.9% due to the increase of available deposits overnight with the National Bank and placements in government bonds[75]. On the other hand, the activities with a risk weight of 20% decreased quarterly by Denar 4.442 million (or by 12.1%) due to the decreased placements with banks[76].

5.2. Dynamics and structure of the own funds of the banking system

The banks' own funds can be assessed as high quality, making the system qualified as highly resilient to potential stress scenarios. In the first quarter of 2019, the own funds of the banking system went up by Denar 2,430 million, or 4.0%. The emission of ordinary shares and accumulating profit in banks' own funds had the largest contribution in the quarterly growth, of Denar 1.830 million, or by 3.3%. On 31.03.2019, the highest quality layer of own funds of the banking system (regular core capital) participates with 90.1% of total own funds. The issuance of perpetual bond (contingent convertible capital instrument[77]), by one medium bank, increased the additional core capital of the banking system by Denar 301 million. However, the additional core capital in the Macedonian banking system, is less represented (it accounts for only 0.6% of own funds of the banking system) and currently present in only two banks. Finally, in 2019, one medium bank issued a bond in form of subordinated instrument, which contributed to the increase of the additional core capital of the banking system, by Denar 298 million, or by 5.4%. On 31.03.2019, the additional capital is 9.3% of own funds of the banking system (9.2% on 31.12.2018).

[75] More details in the liquidity risk section of this report.
[76] For more information about bank placements, see the bank activities section of this report.
[77] This type of capital instruments are referred to in details in the Report on the risks in the banking system of Republic of North Macedonia in 2018, Annex No 4: Contingent convertible capital instruments, pp 114 – 118.

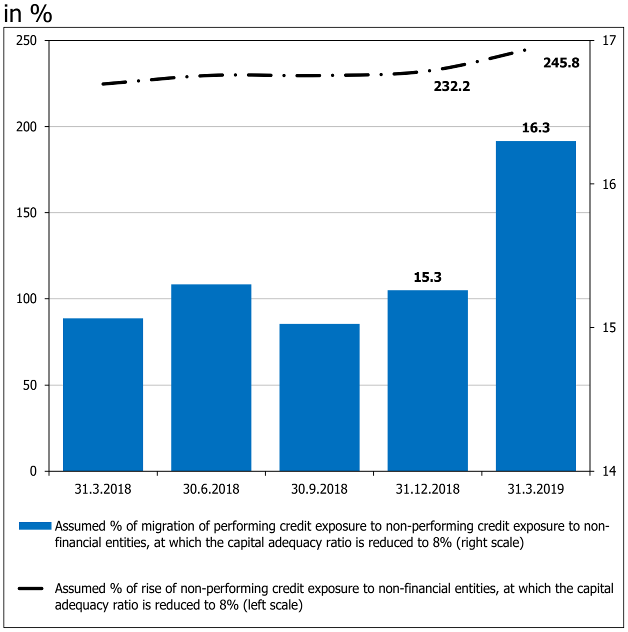
Chart 59 Quarterly growth rates (left, in millions of denars) and structure (right, in %) of capital requirements for credit risk, by exposure category



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

Chart 60 Necessary deterioration of the quality of credit exposure for the capital adequacy of the banking system to drop to 8%

in %



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

For more details about the level of own funds by group of banks see annexes to this report.

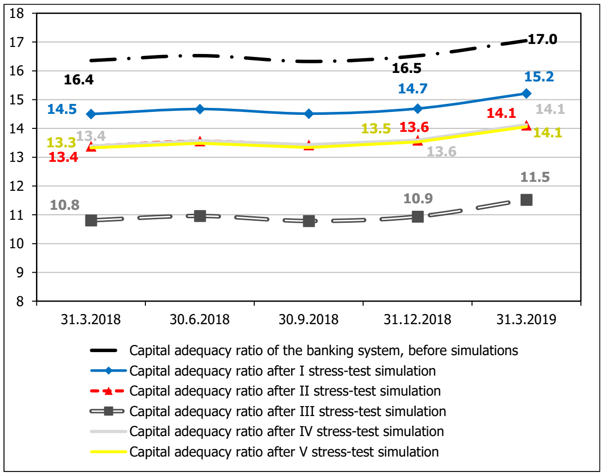
Amid slower growth in the activities of the banking system, most of the quarterly increase of own funds was accumulated as "available" capital above the required level to cover certain risks and maintain the necessary protective layers of capital and capital allowances. Thus, own funds above the required level of covering all claims grew quarterly by Denar 1.427 million, or by 27.3% and on 31.03.2019 participate with 10.5% in total own funds of the banking system. The capital allowance required for covering the total risk profile of the banks, determined by the supervisory assessment and evaluation, increased by Denar 382 million, or by 3.1% and minimally reduced the share in total own funds, to 20.1% on 31.03.2019[78]. There is a similar absolute growth[79] of Denar 321 million (or by 6.9%) on quarterly basis in the protective capital layer for systemically important banks, which on 31.03.2019 reached a share of 7.8% in total own funds[80]. The regulatory capital

[78] Pursuant to the Decision on the manner of conducting supervision and inspection (Official Gazette of the Republic of Macedonia No. 58/18), at least once a year, no later than 15 December the current year, persons authorized by the National Bank shall assess the minimum required capital levels for the banks for the following year, due to the determined overall risk profile of the banks.

[79] The growth of capital requirement is due to the growth of total risk-weighted assets.

[80] Pursuant to the Decision on the methodology for identifying systemically important banks ("Official Gazette of the Republic of Macedonia" no. 26/17), no later than 30 April each year, the National Bank identifies the systemically important banks and determines

Chart 61
Results of stress-test simulations
in %



Source: National Bank, based on data submitted by banks.
*Stress testing includes the following simulations:
I: Increasing the non-performing credit exposure to non-financial entities by 50%;
II: Increasing the non-performing credit exposure to non-financial entities by 80%;
III: Migration of 10% of the regular to non-performing loan exposure to non-financial entities;
IV: Increasing the non-performing credit exposure to non-financial entities by 80% and increase in interest rates from 1 to 5 pp.;
V: Increasing the non-performing credit exposure to non-financial entities by 80% depreciation of the Denar exchange rate by 30%, and increase in interest rates from 1 to 5 pp.

requirement for covering individual risks (currently, the banks allocate capital to cover, credit, currency and operational risk) grew quarterly by Denar 228 million (or by 0.8%) almost entirely due to the increase of capital requirements to cover the credit risk. The modest growth of capital required to cover the risks caused a reduction of its share in total own funds, from 48.4% on 31.12.2018 to 46.9% on 31.03.2019.

The capital requirement for credit risk increased by Denar 224 million, or 0.9%. This development is almost entirely a result of the quarterly growth of the capital needed for credit risk coverage from small loan portfolio, which in turn is related to the increased credit activity of banks to households.

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.

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

Conducted testing of the resilience of the banking system and of individual banks to simulated shocks indicates better results compared to the end of 2018. The capital adequacy of the banking system does not go below 8%, in none of the simulations. This is due to the higher capital adequacy of the banking system before the simulations, but also to the less pronounced sensitivity of some banks to the assumed shocks. Hypothetical shocks on the part of the credit risk had the greatest impact on the stability of the banking system. Reversed stress testing shows that the capital adequacy of the banking system would drop below 8% only if the non-performing credit exposure to non-financial entities rises by 245.8%, i.e. in case of migration of 16.3% from regular to non-performing credit exposure. Also, amid assumed growth of non-performing credit exposure to non-financial

the rates of capital protection layer that these banks should maintain. Systemically important banks are required to comply with the prescribed capital buffer rates for systemically important banks by 31 March next year.

corporations rises by 295.2%, i.e. in case of migration of 19.6% from regular to non-performing credit exposure, the capital adequacy ratio of the banking system would drop to 4.5%.

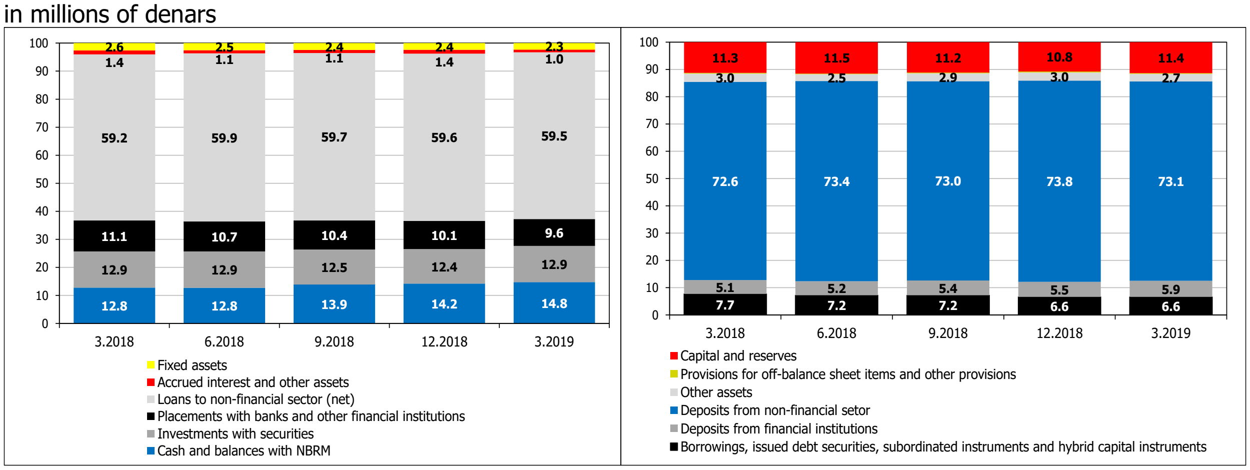
These assumptions are rather extreme, given that the growth of non-performing credit exposure to non-financial entities was only 0.5% in the first quarter of 2019, with only 1.8% of the regular credit exposure received a non-performing status the same period.

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

1. Bank activities

Total activities of the banking system registered slower quarterly growth which is normal for the first quarter of the year, primarily due to the impact of seasonal factors. On the liabilities side, the seasonal factors were reflected through the minimal growth of deposits to non-financial entities, after the high growth in the previous quarter, as an effect of the decrease in corporate sector deposits but also the slower growth of household deposits. Under the influence of the financial result, the capital position of the banks tightened, which is a usual movement for the first quarter. That growth was enhanced in this quarter by issuance of new capital instruments such as ordinary shares, as well as issuance of bonds[81] for the first time. Such developments meant expanding the sources of financing the domestic banks with new stable sources of financing the banking activities. The deposits of non-financial institutions driven by the further accelerated growth of deposits of pension funds contributed to the growth of financing sources, also increasing the liabilities of the banks towards parent entities. The banks have placed most of the newly collected sources of funds into liquid financial instruments, and a slightly smaller part in loans. The credit activity of the banks to non-financial sector on quarterly basis is slower, but significantly improved in terms of realization in the previous three years for the first quarter, when the total loans registered decrease on a quarterly basis. Such developments are mostly explained by the significant narrowing of the decline in corporate loans which after a three years of continuous decrease in the first quarter, they almost stagnated on a quarterly basis in the same period of 2019. Household loans continued to grow with the usual quarterly pace for this period of the year.

Chart 62
Structure of assets (left) and liabilities (right) of the banking system
in millions of denars



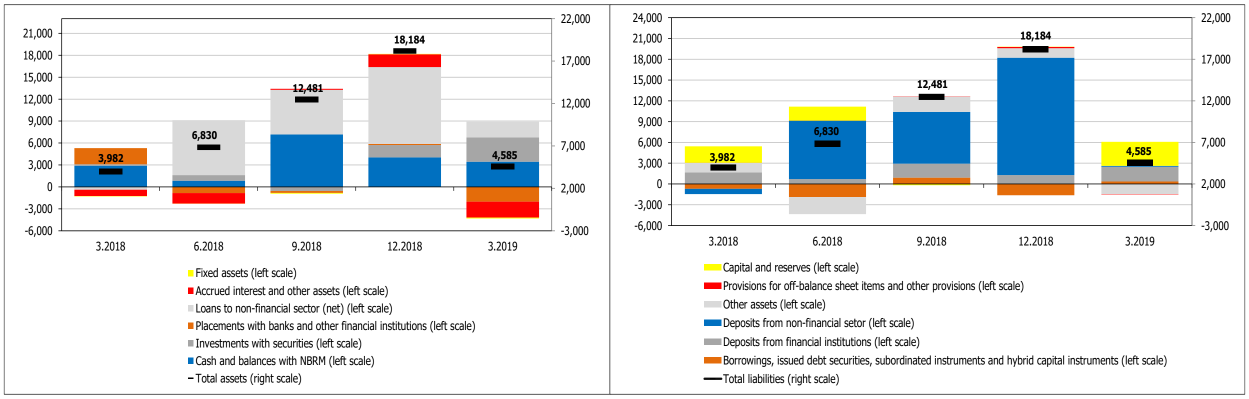
Source: National Bank, based on data submitted by banks.
Note: The loans are presented on a net basis, reduced by impairment.

[81] In the first quarter of 2019, one bank issued ordinary shares intended for a known buyer shareholder of the bank. Two banks issued bonds one of which is a perpetual bond, which met the requirements to be involved in its capital (according to the regulatory treatment, this bond is part of the core capital of the bank), and the second one is a bond which has a liability treatment based on the subordinated debt instrument (in accordance with the regulatory treatment, this bond is part of the additional capital of the bank). More on this instruments is given in the Insolvency Risk Section of this report.

Chart 63

Quarterly growth of components of assets (left) and liabilities (right) of the banking system

in millions of denars



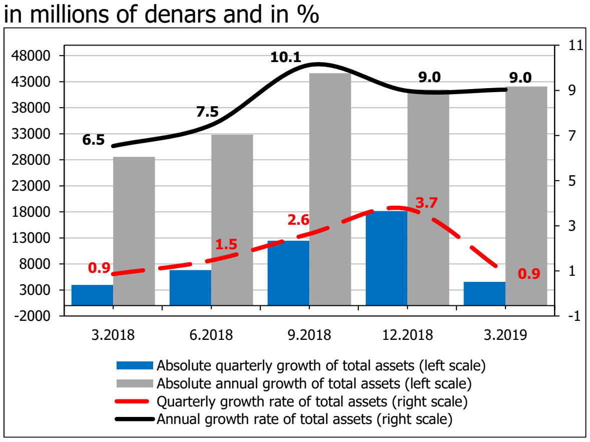
Source: National Bank, based on data submitted by banks.

Note: The loans are presented on a net basis, reduced by impairment.

Chart 64

Assets of the banking system

in millions of denars and in %



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

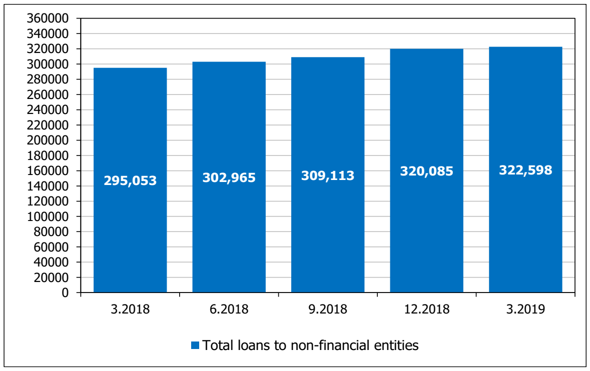
As of 31.3.2019, total assets of the banking system was Denar 508,054 million, which is an quarterly increase of Denar 4,585 million, or 0.9%. The quarterly increase of the assets is slower compared to the one in the previous quarter (3.7% in the fourth quarter of 2018), but is identical to the quarterly increase in the first quarter of 2018 (0.9%). The placements in liquid financial instruments, primarily in overnight deposits with the National Bank and government Eurobonds issued to foreign markets[82] were the driver of growth of the banks' assets. On the liabilities side, the capital positions registered the highest increase, which was contributed by the achieved financial result and issuance of new capital instruments[83]. The further growth in deposits in pension funds had a contribution to the growth of total sources of financing in the first quarter, also increasing the sources of financing originating from parent entities.

The credit activity of banks to non-financial sector grew slowly compared to the performance in the previous quarter, but significantly improved compared to the performance in the previous three years for the same period of the year, when

[82] The Decision on the transition to the second phase of the association between the Republic of Macedonia and the European Community and its member states (Official Gazette of the Republic of Macedonia No. 17/19) since 25.01.2019, the domestic banks are allowed to freely buy and trade domestic government Eurobonds issued on foreign markets.

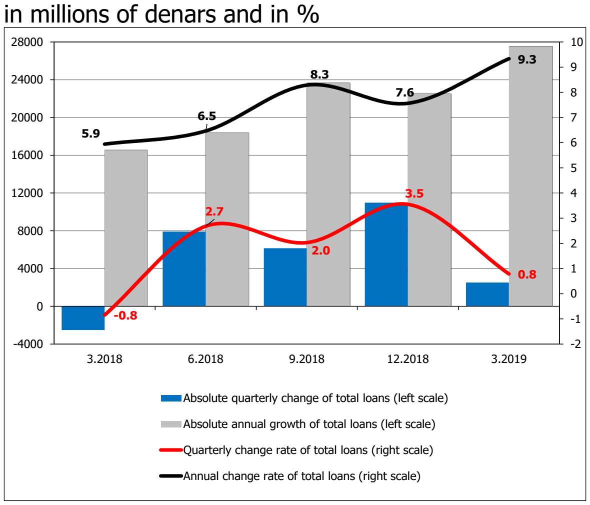
[83] For more on the issued capital instruments see in the Insolvency risk section of this report.

Chart 65
Loans to non-financial entities
in millions of denars



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

Chart 66
Growth of loans to non-financial entities
in millions of denars and in %



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

the total loans declined on quarterly basis. The growth of total loans was higher than the growth of total deposits to non-financial entities, which in accordance with the usual seasonal dynamics increased minimally on quarterly basis.

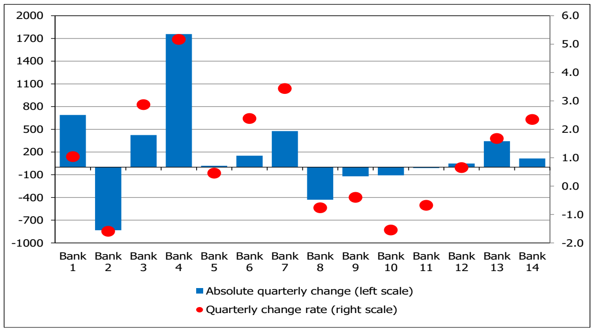
1.1. Loans to non-financial entities

In the first quarter of 2019, lending to non-financial entities registered a slower growth. Loans to non-financial entities [84]increased by Denar 2.513 million, or by 0.8% (compared to the growth of 3.5% in the last quarter of 2018 and the decline of -0.8% in the first quarter of 2018). On an annual basis, the growth of lending accelerated with the increase in loans of Denar 27,545 million, or 9.3% (7.6% as of 31.12.2018). Analyzed by bank (two in the group of large and one in the group of medium-size banks) contributed 61.3% to the total quarterly growth of loans to non-financial entities.

The quarterly growth of credit activity was entirely due to the increased credit support to households, while lending to corporate clients slightly declined. Loans to households[85] in the first quarter of 2019 increased by Denar 2.766 million or by 1.8%, which is almost an identical growth with the one in the last quarter of 2018. On an annual basis, household loans grew slower and reached a growth rate of 9.8% (10.4% as of 31.12.2018). This way, **lending to households maintained relatively high and stable growth (an average of 10%) in the last 5 years,** which is driven by several factors on the supply and demand for these loans. The solid credit support to households equals the further net easing of credit conditions for housing and consumer loans amid favorable shifts in all factors affecting the lending terms. On the other hand, despite the enhanced personal consumption and increased consumer optimism, the demand for loans by households records decrease, which is more pronounced in the housing loans, due to the

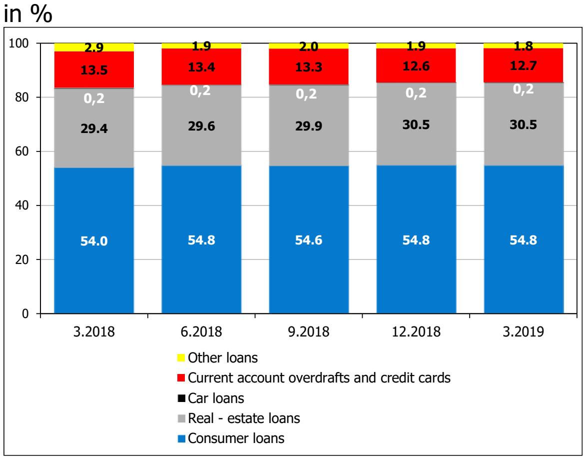
[84] Loans to non-financial entities include loans to resident and non-resident non-financial entities, including loans to private and public non-financial companies, central government, local government, non-profit institutions serving households (loans to other clients), sole proprietors and natural persons (loans to households).
[85] Consumer loans, overdrafts and credit cards are the most widely used credit products by households.

Chart 67
Quarterly growth of total loans of non-financial entities, by bank
in millions of denars and in %



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

Chart 68
Structure of loans to natural persons, by product
in %



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

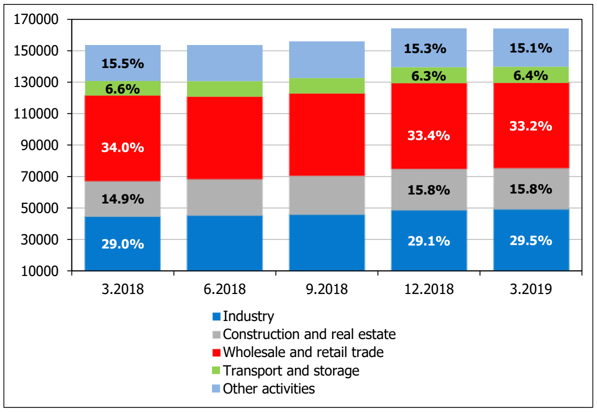
factors "loans from other banks" and "other sources of financing "as well as significantly reduced positive impact of the factors "market perspectives for residential construction" and " consumer's confidence" [86]. Within the consumer crediting, the decreased demand for loans is associated with the factors "household savings" and "spending on durable goods". [87]

Since mid- 2015, the housing loans are the fastest growing segment of the households' credit portfolio, with an annual growth rate which averaged about 15% over the past five years. [88] Since the beginning of 2019, the annual growth of the housing has a slight slowdown (13.5% on 31.03.2019), which is below the average for the analyzed period, but still exceed the annual growth of consumer loans by several percentage points as a credit product with highest share in total loans to this sector (54.3% on 31.03.2019).

The credit support to non-financial corporations is less stable and lags behind the usual households' credit growth. Corporate loans registered a minor quarterly fall of 0.1% (Denar 84 million), while the annual growth rate (8.5%) accelerated and is almost twice as high as at 31.12.2018. Thereby, the largest part of the quarterly decrease of corporate loans is due to the regular collection of overdue short-term receivables from several clients by one large bank.

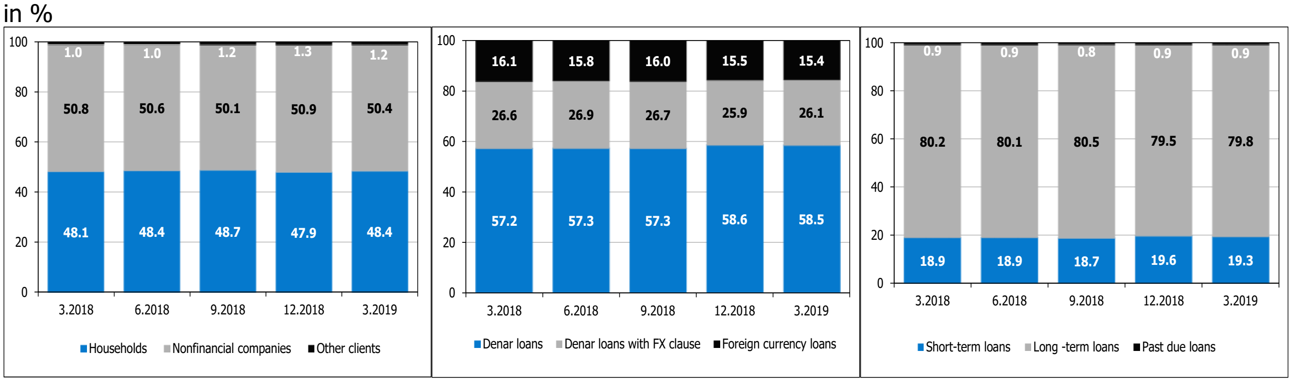
[86] Starting from 2014 until the last quarter of 2018, the banks listed these factors, along with the factor "household savings" as factors which have the most significant impact on increasing demand for housing loans.
[87] Source: Bank Lending Survey, first quarter 2019.
[88] In certain months in the second half of 2015, the annual growth of housing loans reached almost 20%.

Chart 69
Structure of regular loans to non-financial corporations, by activity
In amounts shown in the bars and in % in the data labels



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

Chart 70
Structure of total loans, by sector (left) and currency (middle), and structure of regular loans, by maturity (right)
in %

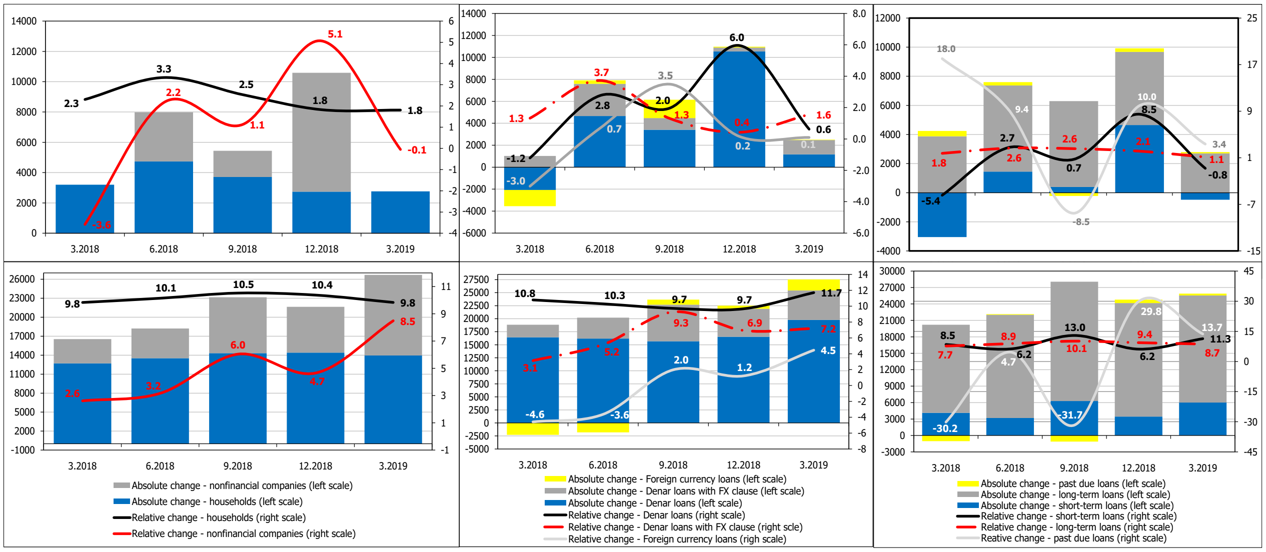


Source: National Bank, based on data submitted by banks.

The greater propensity of the banks for lending to households is seen through constant increase of the share of household loans to total loans of the banks at the expense of the reduced share of loans to corporate sector. In the first quarter of 2019, the structural shares of households and corporate clients in total loans accounted for 48.4% and 50.4%, respectively compared to 38.5% and 61.3%, respectively in December 2010. In six of the fourteen[89] banks, the share of household loans in the banks' loan portfolio is higher than the share of corporate loans. Moreover, two banks from the group of large banks account for 50.4% of the total household loans of the banking system. By credit product, 67.5% of the loans to natural persons are intended for financing the non-identified consumption by natural persons (consumer loans, overdrafts and credit cards).

[89] MBDP AD Skopje was excluded from this analysis.

Chart 71
Quarterly (up) and annual (down) growth of loans, by sector, currency and maturity
in millions of denars and in %



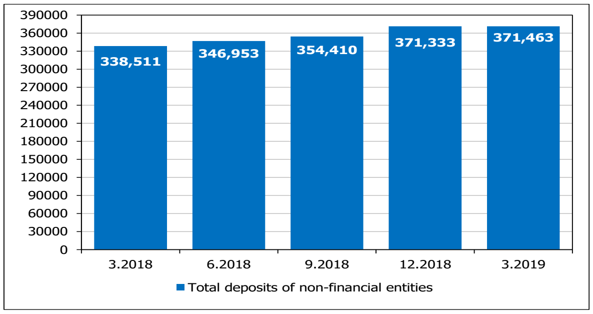
Source: National Bank, based on data submitted by banks.

Analyzed by currency aspect, the growth of the total loans in the first quarter resulted from higher Denar crediting[90] and crediting in Denar with foreign currency clause[91], while the foreign currency loans [92] registered slight quarterly growth. The currency structure of total loans is almost unchanged compared to the previous quarter with a leading share of Denar loans by 58.5%.

In terms of maturity, the maturity of the credit portfolio continued to increase through further growth of long-term crediting[93] which reached a share of 79.8% in the structure of total regular loans at the end of the first quarter. Almost 68% of the growth of the long-term loans are due to the household denar loans[94]. Conversely, the decrease in short-term loans was entirely due to loans to non-financial corporations[95].

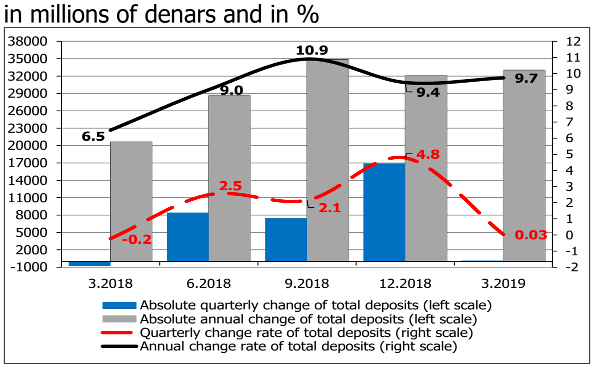
[90] Denar loans increased quarterly by Denar 1.171 million, or 0.6%. The growth of denar household loans was determined by household loans (growth of Denar 2,442 million or 2.9%), compared to the lower corporate loans (decrease of Denar 1,271 million or 1.2%).
[91] Denar loans with FX clause increase by Denar 1.295 million, or by 1.6%, and within them, Denar loans with FX clause to non-financial companies increased by Denar 1.007 million (or by 4.5%).
[92] The quarterly increase of foreign exchange loans amounted to Denar 47 million (0.1%).
[93] Long-term crediting registered a quarterly increase by Denar 2.701 million (1.1%).
[94] Long-term loans to households registered a quarterly increase of Denar 2,122 million, primarily reflecting the growth of long-term denar loans to households (about Denar 1,835 million), mainly consumer and housing loans.
[95] Short-term Denar loans to non-financial companies decreased quarterly by Denar 2.025 million (or by 4.9%), which is mostly due to the mentioned collection of receivables from several clients by one large bank.

Chart 72
Stock of deposits of non-financial entities
in millions of denars



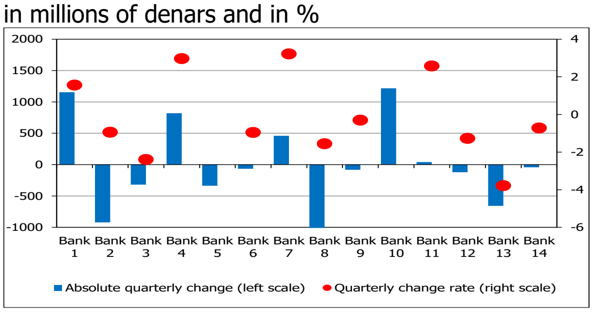
Source: National Bank, based on data submitted by banks.

Chart 73
Growth of deposits of non-financial entities
in millions of denars and in %



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

Chart 74
Quarterly growth of total deposits of non-financial entities, by bank
in millions of denars and in %



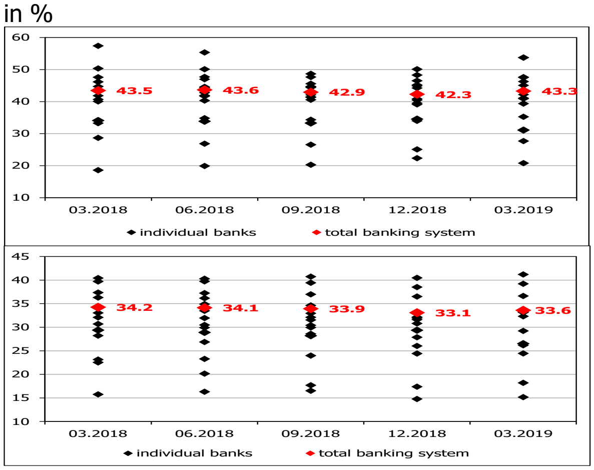
Source: National Bank, based on data submitted by banks.

1.2. Deposits of nonfinancial companies.

After the solid growth achieved in the last quarter of 2018, in the first quarter of 2019, the deposits to non-financial entities grew minimally, but it didn't affect the annual rate of change in the deposit base which grew rapidly. Banks' quarterly deposit growth was Denar 130 million, or 0.03% (compared to the growth of 4.8% in the last quarter of 2018 and the fall of -0.2% in the first quarter of 2018), while the annual growth reached Denar 32,952 million, or 9.7% (9.4% as of 31.12.2018). Despite the minimal quarterly growth of the deposit base of the banking system, analyzed by banks, different movements in total deposits have been noticed. Thus, the growth of the deposit base is due to the increase of the deposits with four banks, while three other banks registered significant decrease in the deposit base.

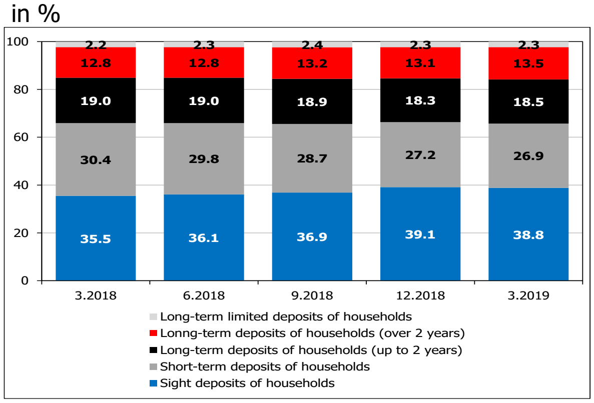
Households, as traditionally the most important depositor in the Macedonian banking system (with a share of 69.6% in total deposits), increased their assets in banks by Denar 1,415 million, or 0.6%, in the first quarter of 2019. **Deposits to non-financial corporations** registered decrease by Denar 1.849 million, or by 1.9% which is a seasonal effect typical for the first quarter, while on annual basis they increase by 11.4% (or by Denar 10.120 million). As of 31.03.2019, household deposits increase on annual basis by 8.7%, or in absolute amount by Denar 20.787 million, which is twice as high compared to the growth of corporate deposits.

Chart 75
Share of total foreign currency deposits (up) and foreign currency household deposits (below) in total deposits of the banking system
in %



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

Chart 76
Term structure of household deposits
in %



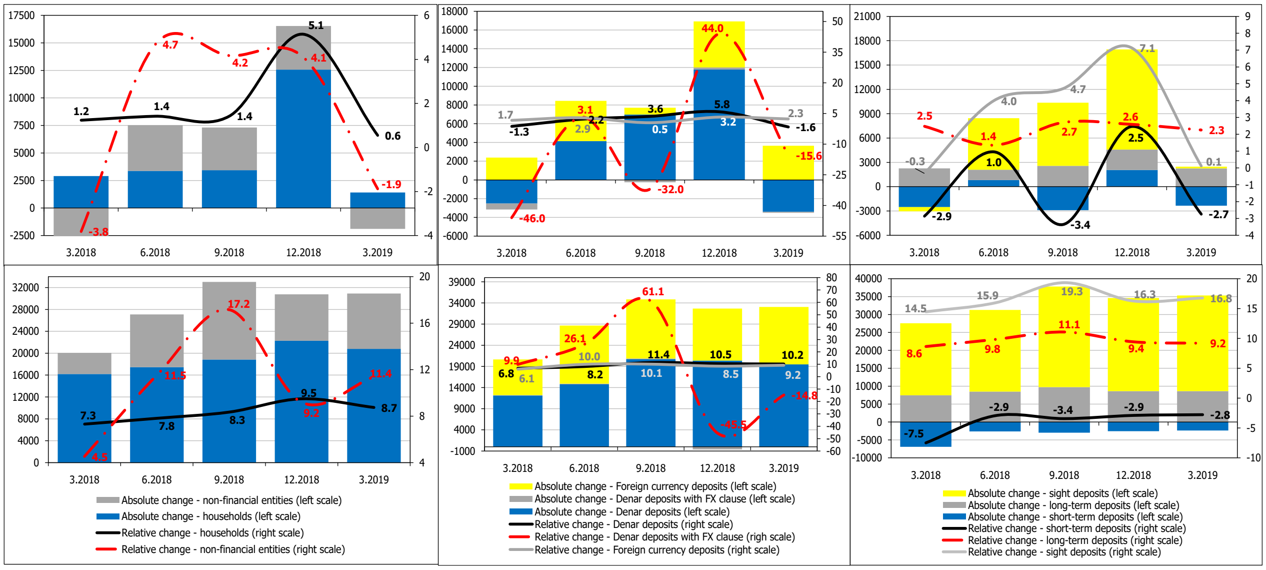
Source: National Bank, based on data submitted by banks.

The analysis of the currency structure of total deposits shows a decrease of denar deposits to non-financial sector (by Denar 3.396 million, or by 1.6%), which primarily stems from the decline of Denar corporate deposits by sight[96], and to a lesser extent from Denar deposits by sight to households[97]. On the other hand, **foreign currency deposits** grew (by Denar 3.644 million, or 2.3%), in which the households had larger contribution (54.1%) compared to contribution of non-financial corporations[98] (33.7%). Such developments contributed to a moderate decrease of the share of Denar deposits to total deposits of non-financial entities, which at the end of the first quarter amounted 56.6% and was lower by 0.9 percentage points in comparison to 31.12.2018.

In terms of maturity, the long-term deposits grew in the first quarter (by Denar 2.260 million, or 2.3%), which is mostly (89.8%) due to the household deposits[99]. On quarterly basis the deposits by sight[100] increased by modest Denar 215 million, or by 0.1%, while the short-term deposits registered a decline (by 2.7% or by Denar 2.345 million) mainly influenced by the lower level of short-term corporate deposits[101].

[96] The quarterly decrease of Denar deposits by sight to non-financial companies amounted to Denar 2.270 million, or 4.2%.
[97] The quarterly decrease of denar household demand deposits amounted to Denar 1,662 million, or 2.9%.
[98] The quarterly increase of foreign currency household deposits amounted to Denar 1.970 million (or 1.6%), and is mostly (71.4%) due to the deposits by sight. Foreign currency deposits of non-financial corporations registered a growth of Denar 1,229 million (or 4.5%), which was again entirely due to demand deposits.
[99] The quarterly growth of long-term household deposits was Denar 2,029 million (or 2.3%), where the contribution of Denar deposits was 56.9%, while the contribution of foreign currency deposits was lower (43.1%).
[100] The quarterly increase of deposits by sight (Denar 215 million) is due to the increase of the foreign currency deposits (by Denar 3.947 million), amid simultaneous decrease of Denar deposits (by Denar 3.726 million).
[101] Short-term corporate deposits fell by Denar 1,815 million, or 13.1% in the first quarter.

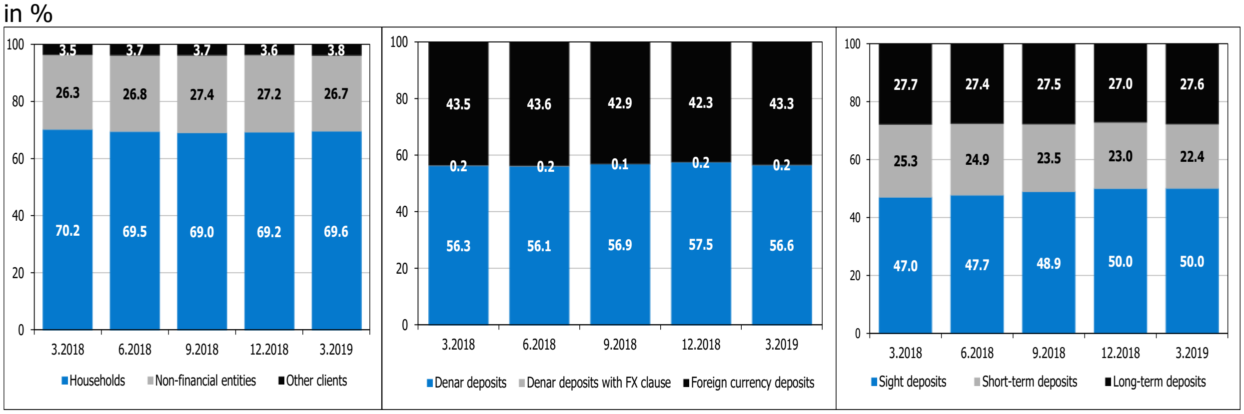
Chart 77 Quarterly (up) and annual (down) deposit growth by sector, currency and maturity
in millions of denars and in %



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

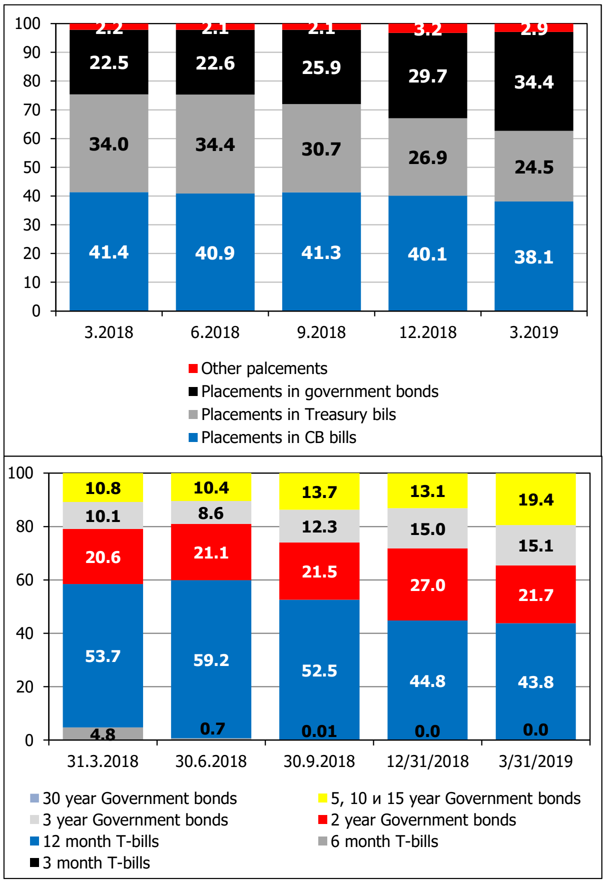
In the first quarter of 2019, the analysis of the maturity structure of household deposits shows a decrease of the structural share of deposits by sight in the maturity structure of household deposits (by 39.1% on 31.12.2018, to 38.8% on 31.03.2019). The share of short-term deposits continued the downward trend (by 27.2% on 31.12.2018, to 26.9% on 31.03.2019), regardless of the currency, while the share of long-termed deposits increased by 33.7% on 31.12.2018, to 34.3% on 31.03.2019

Chart 78
Structure of total deposits, by sector (left), currency (middle) and maturity (right)
in %



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

Chart 79
Structure of securities portfolio (up) and maturity structure of banks' investment in continuous government securities issued on the domestic market (down)
in %



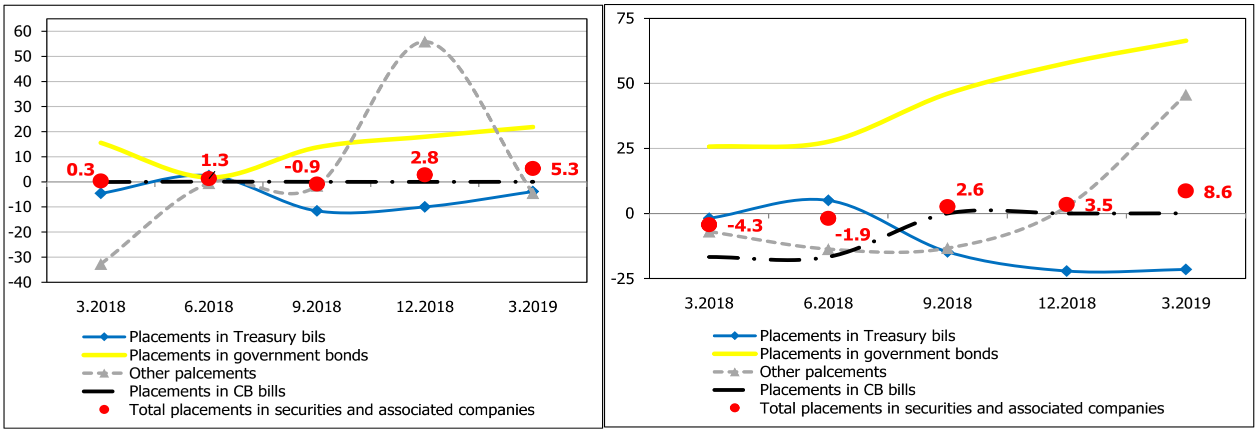
Source: National Bank, based on data submitted by banks.

1.3. Other activities

In the first quarter of 2019, banks' investment in securities[102] (by net book value) increased by Denar 3,312 million (or 5.3%), while their share in the total assets of the banks amounted to 12.9% and increased compared to 31.12.2018 by 0.5 percentage points. Such developments were conditioned by the placements of banks in government Eurobonds issued on foreign market[103], which by the end of the first quarter of 2019 reached Denar 3.039 million in banks' balance sheets (in the previous period, the banks had no investments in this instrument). Banks reduced investments in treasury bills (by Denar 647 million, or by 3.9%), while the investments in CB bills remain unchanged compared to the previous quarter in conditions where the National Bank cut the key interest rate from 2.50% to 2.25% and kept the offer of CB bills at the level of Denar 25.000 million. Such development led to a quarterly increase in the share of investments in government bonds in the total portfolio of securities with banks, from 29.7% on 31.12.2018, to 34.4% on 31.03.2019, at the expense of the decrease of share of rest of the placements in securities. CB bills continue to have the highest share in the structure of banks' investments in securities (38.1% on 31.03.2019).

[102] Including investment in associated companies.
[103] The Decision on the transition to the second phase of the association between the Republic of Macedonia and the European Community and its member states (Official Gazette of the Republic of Macedonia No. 17/19) since 25.01.2019 allows the domestic banks to freely buy and trade domestic government Eurobonds issued on foreign markets.

Chart 80
Quarterly (left) and annual (right) growth rate of securities portfolio
in %

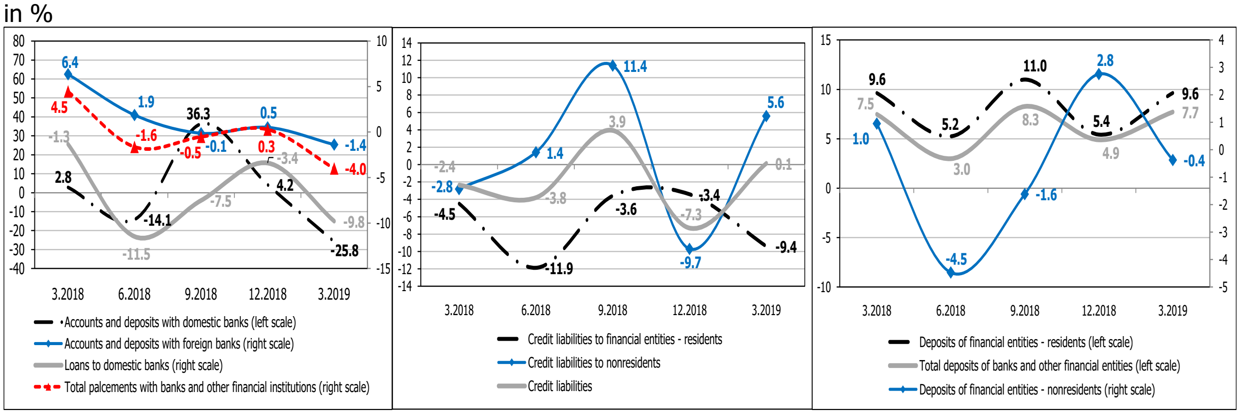


Source: National Bank, based on data submitted by banks.

In the first quarter of 2019 **placement with banks and other financial institutions** recorded a decrease by Denar 2.024 million, or by 4%. All categories of placements[104] decreased, with the largest contribution (45.2%) by the reduction in long-term loans granted to domestic banks in foreign currency (placed by "MBPR" AD Skopje).

This was adequately reflected on the assets side through the decrease of liabilities based on the long-term loans from domestic banks[105]. However, total **liabilities based on loans** on quarterly bases increased by Denar 40 million, or by 0.1% which is mostly due to the growth of liabilities based on loans in foreign currency up to one month (by Denar 924 million) to the parent entity of one large bank.

Chart 81 Quarterly growth rate of placements with financial institutions (left), loan liabilities (middle) and deposits of financial companies (right)
in %



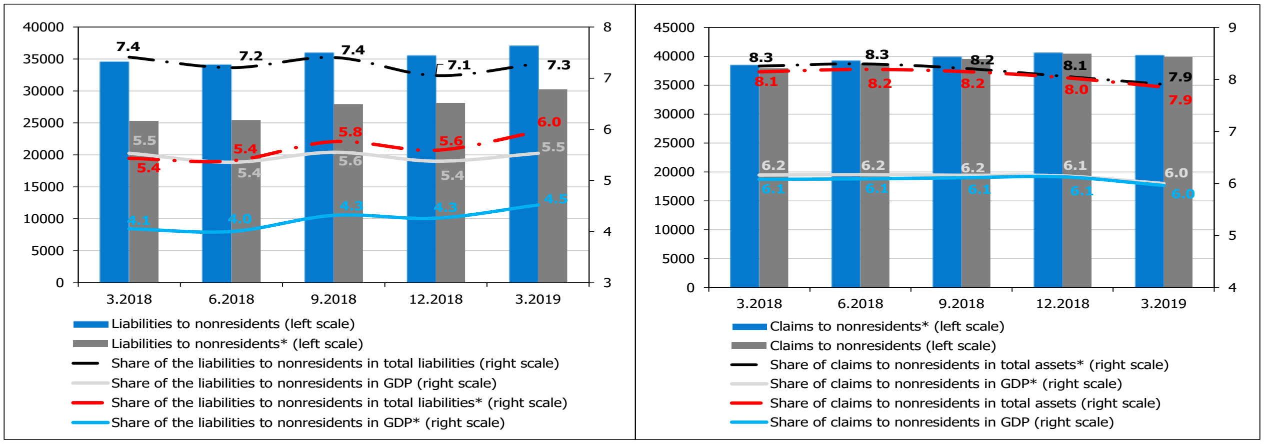
Source: National Bank, based on data submitted by banks.

Deposits from banks and other financial institutions remain a small source of funding for banks, although their share in total liabilities in the last several quarters steadily increases and in the first quarter of 2019 is 5.9%. Growth in deposits from banks and other

[104] The funds on accounts and deposits with domestic banks in the first quarter decreased by Denar 561 million, while funds on accounts and deposits with foreign banks were lower by Denar 523 million.
[105] The Liabilities based on long-term loans with foreign currency to domestic banks reduced by Denar 715 million mostly due to the settlement of other domestic banks to "MBPR" AD Skopje.

financial institutions in the first quarter (by Denar 2.156 million or 7.7%), is almost entirely due to the growth of current account balances and long-termed deposits of pension funds.

Chart 82
Liabilities to (left) and claims on (right) non-residents
in millions of denars and in %



Source: National Bank, based on data submitted by banks.
* The amounts for the claims and liabilities from/to nonresidents do not include „MBPR"AD Skopje.

The banking system claims exceeds their liabilities to non-residents[106]. The volume of domestic banks' activities with non-residents is still relatively small. However, in the first quarter of 2019, the liabilities of domestic banks to non-residents increased by Denar 1.514 million (or 4.3%), and their share in the total assets of the banking system reached 7.3%[107]. Such increase stems from above mentioned growth of liabilities based on the loans in foreign currency up to one month to parent entity of one large bank and growth of liabilities to parent entity based on the issued subordinated debt securities with one medium-sized bank. On the other hand, the banks' claims on non-residents decreased by Denar 431 million (or 1.1%) almost entirely due to the decrease of current account balances of foreign banks in foreign currency. The share of claims on non-residents in total liabilities decreased and equaled 7.9%[108].

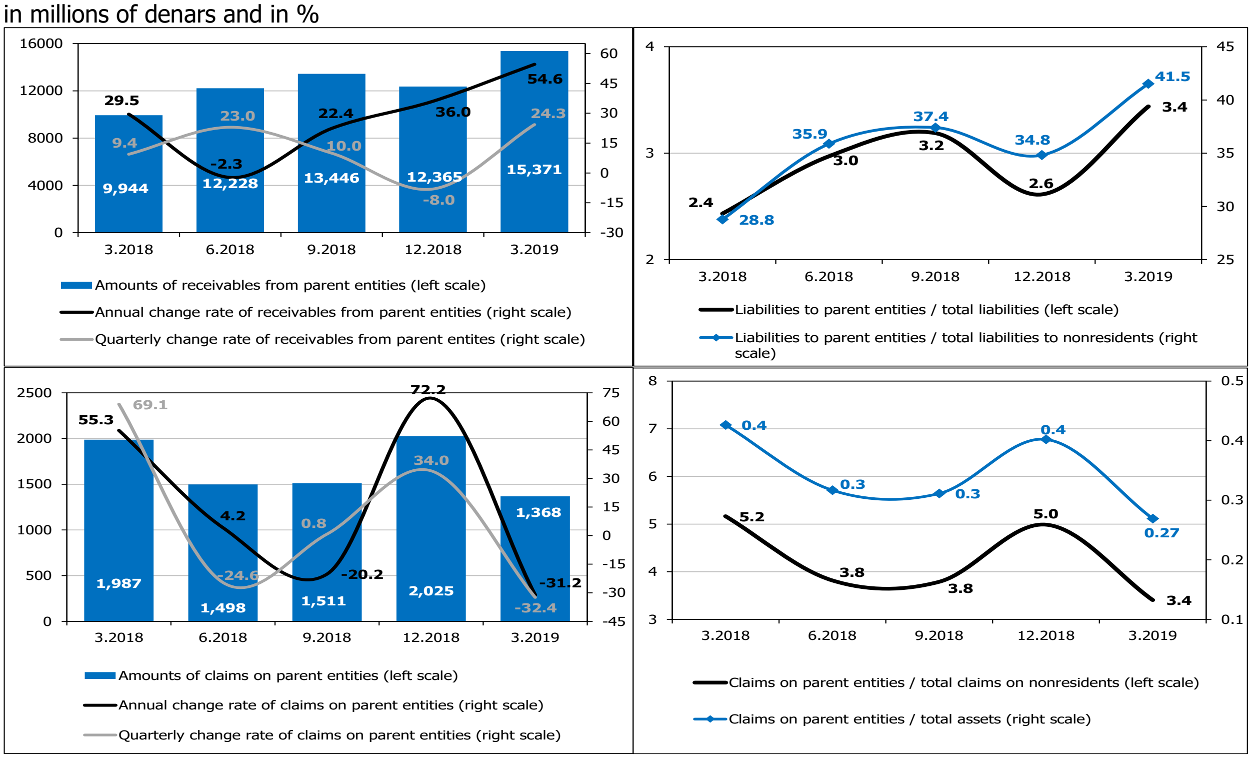
[106] On 31.03.2019, six of total fifteen banks have more claims than they owe to non-residents.
[107] If we exclude the "MBPR" AD Skopje from the analysis, the share of liabilities to non-residents in total liabilities is 6%.Analyzed by bank, this share ranges from 0.1% to 20%.
[108] If we exclude the "MBPR" AD Skopje, the share of receivables from non-residents in total assets is unchanged and amounts 7.9%. Analyzed by bank, this share ranges from 2.5% to 17.3%.

The borrowings from parent[109] entities is not a major source of funding for the Macedonian banks. However, banks' liabilities to their parent entities increased quarterly by Denar 3,007 million (or 24.3%) largely due to the increase in deposits of financial corporations and loan liabilities of one large and one medium-size bank. Thus, the share of banks' liabilities to parent entities (including subordinated liabilities and hybrid capital instruments) in total liabilities of the domestic banking system, and in liabilities to non-residents increased to 3.4% and 41.5%[110], respectively. **Banks' claims on parent entities** account for only 0.3% of the total assets of the banking system, while their share in total claims on non-residents is 3.4%. Compared to the last quarter of 2018, the claims form parent entities decreased by denar 657 million.

Chart 83

Liabilities to (up) and claims on banks' parent entities (down)

in millions of denars and in %



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

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[109] The banks' funding from parent entities predominantly include short-term deposits, long-term loan liabilities and liabilities based on subordinated and hybrid capital instruments.

[110] Analyzing by bank, the share of banks' liabilities to parent entities in total liabilities to non-residents ranged from 17.1% to 79.1%. Analyzing by bank, the share of banks' liabilities to parent entities in total liabilities ranged from 0.3% to 19.4%.

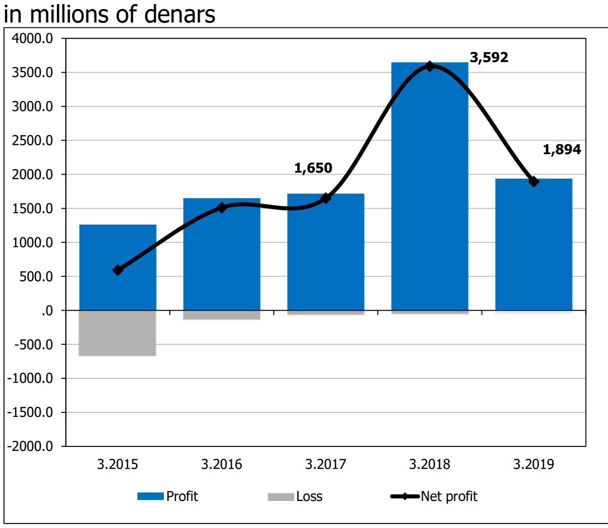
2. Profitability

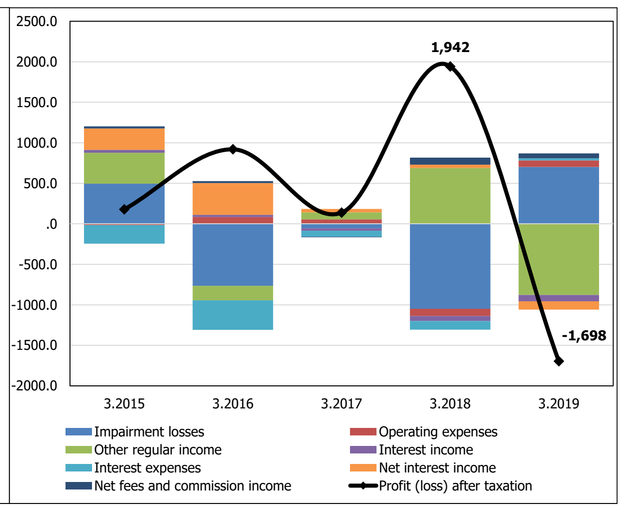
In the first quarter of 2019[111], the banks achieved positive, but halved financial result from their operations, compared to the same period last year. The pronounced decrease in profit is primarily due to the effect of one-off factors[112] in the first quarter of 2018, which led to narrowing of the profit margin and moderate deterioration of profitability indicators. Maintaining stable net interest income is of great importance for ensuring sustainable profitability of the banking sector both in a medium and long-term, given the business model of the domestic banks which is traditionally focused towards lending-deposit activities, with the largest share of net interest income in total income. The downward trend of banks' active and passive interest rates continues in the beginning of 2019 but at a slower pace.

2.1. Profitability and efficiency indicators of the banking system

In the first quarter of 2019, banks continued to achieve solid profitability, and despite the halved profit compared to the same period last year, when the profitability was drastically increased mainly due to the effect caused by the action of certain one-off factors.

Chart 84 Net profit after taxation (left) and annual change in the main income and expenses (right)
in millions of denars





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

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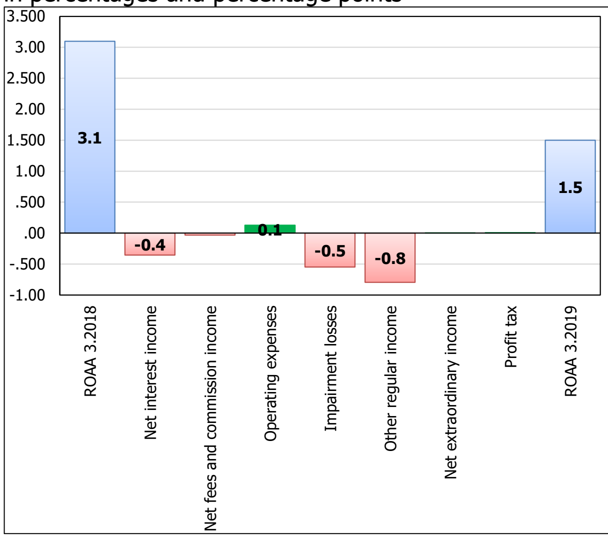
111 All data in this section of the Report, derived from the banks' income statement (income, expenses, profit, loss, etc.) relate to the first three months of 2019, and their value is compared with the same period last year or another year. Data derived from the balance sheet (assets, loans, deposits, capital, etc.) or those related to the lending and deposit interest rates in this section are presented as an average for the first three months of 2019 and such calculated average is compared with the average calculated for the first three months of 2018 or any other year. If data are presented on a different basis, other than the above-mentioned, it will be specified in the text.

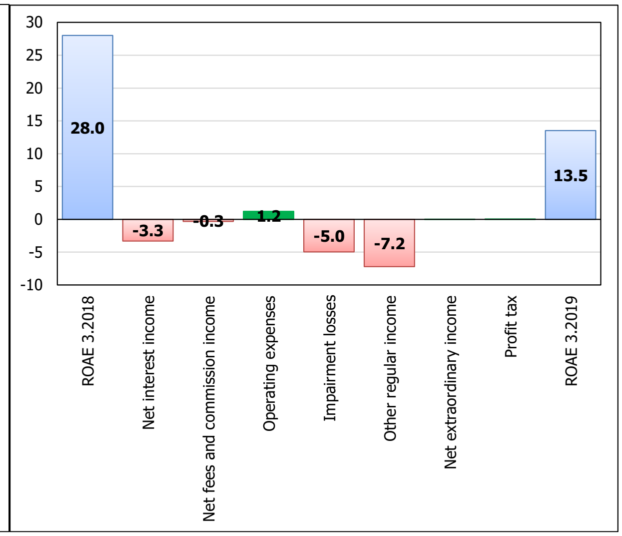
112 In the first quarter of 2018, the banks' profitability was affected by two events of irregular nature, as follows: 1/ collection of non-performing receivables from company through sale (present in 3 banks) and 2/sale of capital share in the company for pension fund management (present in 1 bank).

The pronounced decline of other regular revenues and high growth of costs of impairment are main factors of reduced profit in the first quarter of 2019. If we exclude the effect of these irregular events, present in the first quarter of 2018, the decline of the financial result is mitigated and would be 9.4%.

Chart 85 Decomposition of the return rates on average assets (left) and average equity and reserves (right)

in percentages and percentage points



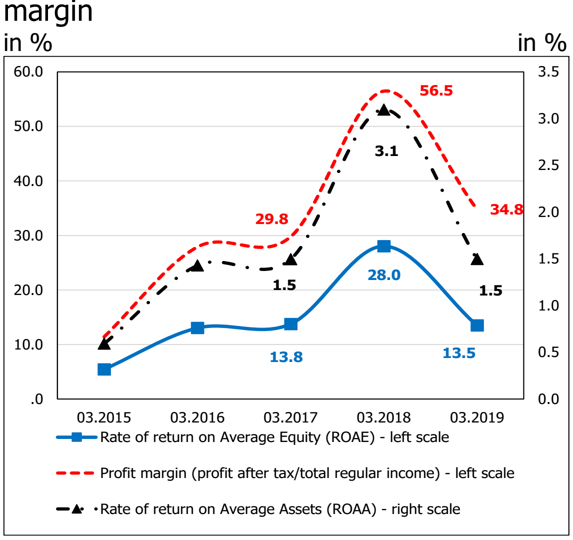


Source: National Bank, based on data submitted by banks.

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

Chart 86

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



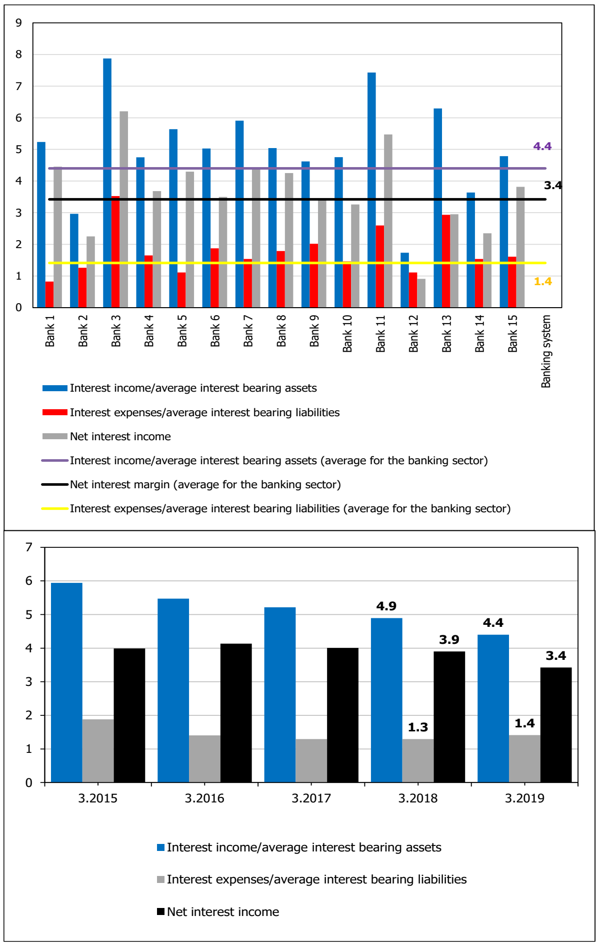
Source: National Bank, based on data submitted by banks.

Such decrease of the financial result is mostly due to the decrease in capital gain from the sale of assets and decline of the net interest income, given the lower interest income and increased interest expenses. The growth of operating costs also had a moderate negative contribution to formation of the profit of the banking system.

Analyzed by individual groups of banks, all of them showed profit, with a significant increase of the profit in the group of small banks, while the financial result of the group of medium-sized banks was halved, similar to the group of large banks, where the impact of the mentioned factors of one-off character, present in the first quarter of last year.

The decreased profit in the first three months of 2019 determined a downward correction of the main profitability and

Chart 87
Net interest margin per specific bank, as on 31.3.2019 (above)* and net interest margin on the level of the banking system (below)
in %



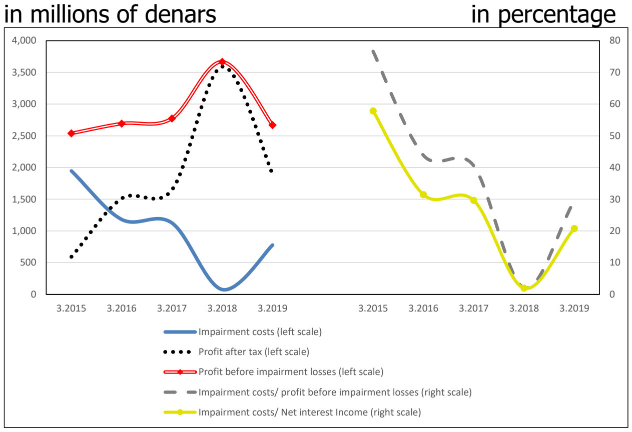
Source: National Bank, based on data submitted by banks.

efficiency ratios of the banking system. The return rates on average assets (ROAA) and average equity and reserves (ROAE)[113], as well as the profit margin of the banking system, in the first three months of 2019 decreased significantly compared to the same period last year. These indicators would decrease, even if we isolate the effect of one-off factors from the first quarter of 2018[114]. Profitability and efficiency indicators of the banking system and individual bank groups are presented in Annexes to this Report.

In an environment of constant decline in interest rates, net interest margin that banks realize by interest-bearing activities continue to follow the downward trend, but remains at a relatively high level, confirming the solid capacity of the domestic banking sector to generate revenue from financial mediation. The performances in the first quarter of 2019 show a decrease of net interest margin (by 0.5 percentage points on an annual basis) to 3.4%, registered amid reduction of net interest income (by 2.7% or Denar 104 million), amid simultaneous increase in the average interest-baring assets (of 9.4%). The decrease of net interest revenue is due to the decline in interest revenues (by Denar 78 million or by 1.6%[115]), amid simultaneous growth in interest expenses (by Denar 26 million or by 2.5%[116]). Analyzed by individual sectors, the interest revenue and expenses from operations with financial institutions mostly contributed to the decline in net interest revenues, primarily the interest revenues from the central bank (by Denar 50 million or by 23.9%).[117] The interest revenues from non-financial companies, also decreased by Denar 41 million, or by 2.3% which is a slight slowdown in comparison to the decline in the same period last

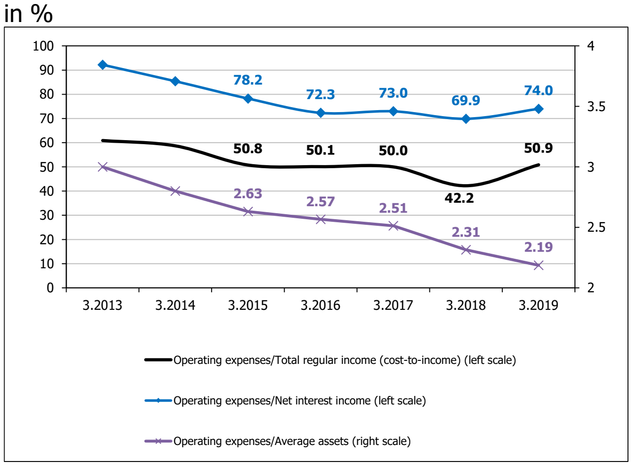
[113]Average assets and average equity and reserves are calculated as the balance of assets i.e. equity and reserves as of the analyzed date and as of 31 December of the previous year.
[114] If we isolate the effect of one-off factors in the first quarter of 2018, the return rate of the average assets, as of 31.03.2018 would be 1.8% (1.5% on 31.03.2019), the return rate of the average equity and reserves for the same date would be 16.3% (13.5% on 31.03.2019), while the profit margin would be 34.9% (34.8% on 31.03.2019).
[115] For comparison, as of 31.3.2018, interest income decreased by Denar 63 million, or 1.3%.
[116] For comparison, as of 31.3.2018, interest expenses decreased by Denar 107 million, or 9.3%.
[117] Despite the increased average CB bills in the first quarter of 2019, compared to the same period in 2018, the decrease of interest revenue from the central bank stems from the downward correction of CB bills interest rate to 2.25% in March 2019, compared to March 2018 when this interest rate was 3%.

Chart 88
Impairment costs to gain and to net interest income ratio
in millions of denars in percentage



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

Chart 89
Operational efficiency indicators
in %



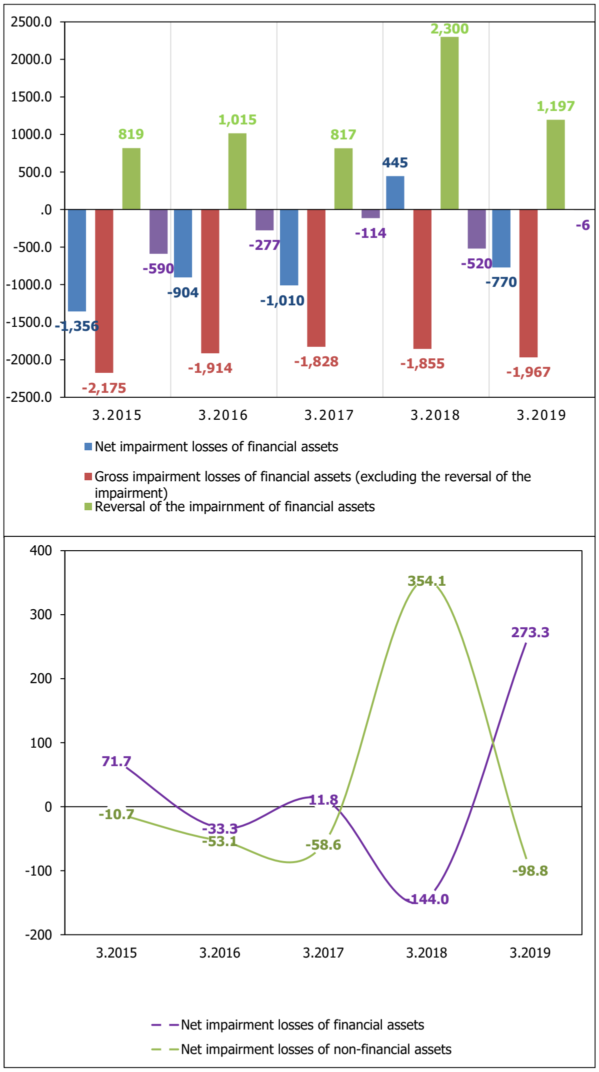
Source: National Bank, based on data submitted by banks.

year (by 8.8% or by Denar 171 million) [118]. On the other hand, interest revenues from households increased, by Denar 88 million, or by 3.7%, but at a slower pace compared to the previous year (as of 31.03.2018, interest rates from households increased by Denar 113 million, or by 5%). On the interest expenses side, the increase of these expenses for financial institutions (by Denar 29 million or by 14.9%[119]) mostly contributed to increase in total interest expenses. Interest expenses for non-financial companies also increased by Denar 2 million or by 2.1%, while interest expenses for households declined by Denar 12 million, or by 2.1%, compared to the same period last year[120].

Operating efficiency of the banking system, measured by the ratio of operating costs and total regular revenues, i.e. total net interest revenues registered significant deterioration in the first quarter of 2019. Operating costs increased by Denar 81 million, or by 3%, which is mainly due to the growth of staff costs and administrative costs. At the same time, net interest revenues decreased (by Denar 78 million or by 1.6%), while total regular revenues significantly declined, by Denar 922 million, or by 14.5%. The high decline in these revenues stems again from an event from the first quarter of 2018, when there was a higher amount of capital gain from sales of forfeited property due to uncollected receivables. On the other hand, in the first quarter of 2019, such sales are of much smaller scale and thus the realized capital gains are significantly smaller by Denar 435 million). The ratio between operating costs and average assets registered certain improvement, which is due to the rapid growth of average assets[121] (9%) compared to the growth of operating costs (3%) in the analyzed period.

[118] A solid decline, by 15% or by Denar 34 million, is registered in the state interest revenues, which is mainly due to decline of interest rate of government securities, despite the average increase of realization of these securities in the first quarter of 2019 compared to the same period in 2018.
[119] More than half (Denar 18 million) of this increase goes to interest expenditures for pension funds deposits (which record an increase in the past period). In addition, the interest expenditures for the central bank also register an increase (Denar 16 million), based on the instruments other than loans.
[120] In the first quarter of 2018, the interest expenditures to non-financial companies decreased by Denar 20 million or by 14.1%, while interest expenditures to households decreased by Denar 63 million or by 10.4%.
[121] The average assets is calculated as an average of the amount of the assets on 31.03 in the current year and 31.12 the previous year.

Chart 90
Amount of impairment costs of financial and non-financial assets (up) and annual rates of change in impairment costs of financial and non-financial assets (down)
in millions of denars in %



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

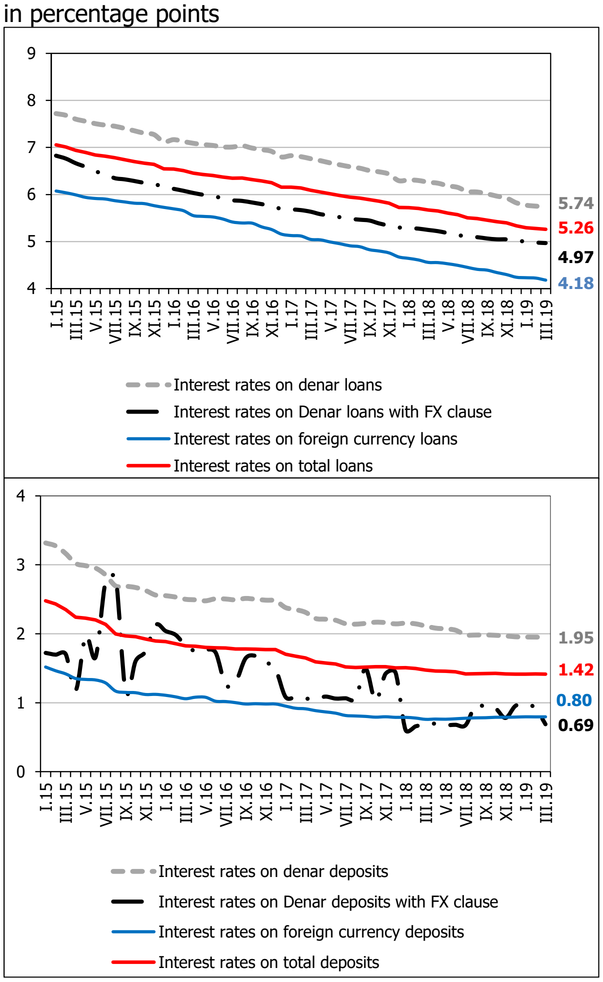
The analysis for the dynamics of impairment during 2019 will be influenced by one-off events from the first quarter the last year, when a high amount of impairment was released (due to collection of significant amount of non-performing receivables by several banks. Hence, in the first quarter of 2019, impairment cost for financial assets increased by significant 273.3% or Denar 1,215 million compared to the same period of 2018. Excluding the effect of one-off events in the first quarter of 2018, the impairment cost for financial assets would have noticed far more moderate grow by 12.2% (or by Denar 84 million). Despite such developments, the impairment cost for non-financial assets decreased significantly, by Denar 514 million, or by 98.8%. The reduction of this cost is entirely due to the significantly lower amounts of new impairments made for the forfeited property based on uncollected receivables[122]. Namely, the average amount of forfeited property in banks' balance sheets in the first quarter of 2019 dropped by 31.8% (or by Denar 1.679 million), compared to the same period last year[123]. Cumulatively, total impairment costs (for financial and non-financial assets) increased by Denar 702 million, or more than 10 times. However, if we exclude the effect of one-off events from the first quarter of 2018, the total impairment cost would drop by 35.6%, or by Denar 430 million.

2.2. Movements in interest rates and interest rate spread

In general, the constant downward trend of interest rates with the banks continued in the first quarter of 2019, but at a lower intensity, amid further relaxation of monetary policy by the National Bank[124]. The decrease was mainly on the side of lending

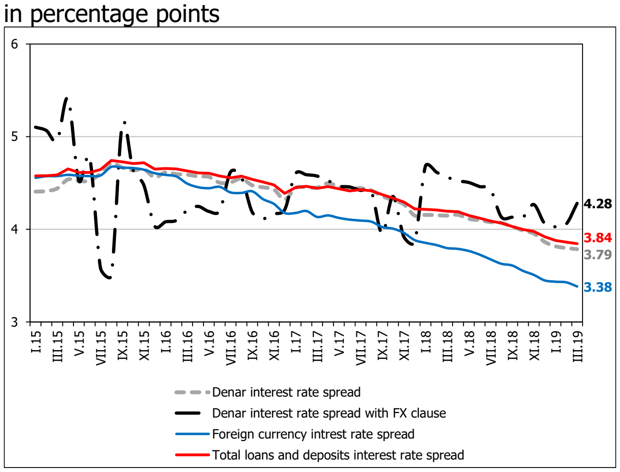
[122] Pursuant to the regulation, the banks are required to make impairment of the forfeited property based on the uncollected receivables, of at least 20% a year.
[123] Such decrease of the forfeited property based on the uncollected receivables in banks' balance sheets results from conducted sales, primarily in the last three quarters of 2018, amid a moderate decrease of this property in the first quarter of 2019 (Denar 13 million or by 0.4%).
[124] In March 2019, the National Bank again cut the interest rate on CB bills from 2.5% to 2.25%.

Chart 91
Lending (top) and deposit interest rates (bottom)
in percentage points



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

Chart 92
Interest rate spread
in percentage points



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

interest rates, which in March 2019 were lower by insignificant 0.1 percentage point compared to the end of the previous year. On an average, compared to the same period last year, the interest rate on total loans for the first quarter of 2019 (5.3%) was lower by 0.4 percentage points. The decrease of average interest rate of total deposits for the first three months of 2019 was 0.3 percentage points compared to average of the same period last year (average passive interest rate for the first three months of 2019 was 1.4%). On the other hand, the interest rate of deposits in March 2019 remained unchanged, compared to December 2018. Analyzed by currency, the most pronounced decline, by 0.5 percentage points, was registered at the average interest rate of Denar loans (December-March 2019), compared to the same period last year (December- March 2018). On the deposit side, the most significant decrease of 0.4 percentage points of the average interest rate of Denar deposits with foreign currency clause, compared to the same period last year (however, one should take into account the fact that denar deposits with foreign currency clause are underrepresented in the banks' deposit base).

In the first quarter of 2019, the interest rate spreads registered a more pronounced downward trend compared to the same period last year, mainly caused by the larger decline in lending, compared to the deposit interest rates. The interest rate spread between interest rates of total loans and deposits on annual basis decreased by 0.3 percentage points, so the average interest rate spread for the first three months of 2019 was 3.9 percentage points.

ANNEXES