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 THIRD QUARTER OF 2019

December 2019

CONTENTS

Summary

The third quarter of 2019 was characterized by few significant changes; primarily by the solid growth of received deposits and banks' liquid assets, despite the moderate deterioration of the solvency indicators and significant reduction of the nine-month profit. In addition, the new Decision on the methodology of credit risk management became effective from 1 July 2019, which had appropriate effect on the quarterly credit dynamics and portfolio quality indicators[1]. In the third quarter of 2019, the assets of the banking system grew faster than in the previous quarter, but slower compared to the growth in the third quarter of 2018. The sight deposits of non-financial sector mostly contributed to the quarterly growth in the sources of funds, and the increase in borrowings to non-residents and the profit in the third quarter of 2019 also contributed to the increase. Thus, sight deposits and denar deposits mostly contributed to the growth of the deposit base, in which both non-financial sectors had an almost equal share. Most of the newly collected sources of financing were placed in liquid assets and a portion was used for lending to the non-financial sector. Banks' lending activity registered weaker performances compared to the growth of deposits. Namely, loans to non-financial entities declined in the third quarter of 2019, mainly due to the entry into force of the amendments to the regulation for credit risk management (effective from 1 July 2019) i.e. due to the mandatory write-off of non-performing claims which have been fully provisioned longer than 12 month. Even if the effect of the required mandatory write-offs was isolated, the total loans to non-financial entities register a modest quarterly growth which is lower compared to the growth in the previous quarter and the third quarter of 2018. Household loans continue to grow on a quarterly basis, while corporate loans decreased (corporate loans register a decline even if the effect of the mandatory write-offs is isolated).

The amendments to the regulation on credit risk management, which, among others, oblige banks to "clear" their balance sheets, improved the credit risk materialization indicators. Thus, in the third quarter of 2019, the share of non-performing loans in total loans of non-financial entities declined by 0.5 percentage points and was reduced to 5% (if the effects of the mandatory write-offs of non-performing loans were isolated, the non-performing loans ratio would register a quarterly growth of 0.4 percentage points and as of 30 September 2019 would amount to 11.5%). Analyzed by sectors, the NPL ratio for non-financial sector is 8% (8.8% on 30 June 2019), while for households it was reduced down to 2.1% (2.4% as of 30 June 2019). If the effects of the mandatory write-off of non-performing loans is isolated, the NPL ratio for non-financial entities would amount to 17.8% (17.0% on 30 June 2019), and in 5.3% for households (5.1% on 30 June 2019).

The liquidity indicators of the banking system improved, amid quarterly solid growth of banks' liquid assets, where almost 80% of the new founding sources were directed in the third quarter of 2019. In their structure, the increased assets in the Denar accounts with the National Bank were the growth drivers, and the increased investments of banks in domestic government Euro bonds issued in the foreign markets also had a significant contribution. The liquid assets make up around one third of the banks' total assets, covering more than 55% of the short-term liabilities and 60% of the total household deposits. The loan-to-deposit ratio of the banking system dropped to slightly lower than 85%, due to the quarterly decline in loans.

The profit of the banking system earned in the first nine months of 2019 was lower than 24.3% compared to the same profit in the same period in the previous year. Such a decrease is largely a reflection of the exhaustion of the effects of the one-off events that led to high profit growth in the first nine months of 2018. However, if their effect is isolated, the profit earned in the first nine months of 2019 is lower (by 5.8%), compared to the profit in the same period of the previous year, which is as a result of the decrease of the capital gains from the assets sale and reduction of net interest revenues. At the same time, the increase of banks' operational costs led to lower indicators for the efficiency of the banking system. As of 30 September 2019, the rates of return on average assets and average capital and reserves of the banking system amount 1.5% and 13.5%, respectively (compared to 2.2% and 25.5% for the first nine months of 2018), while the cost-to-income ratio amounts to 50% (45.7% for the same period of the last year).

The indicators of solvency of the banking system register a slight decline, but remain solid. In the absence of the reinvestment of the profit in the banks' capital (which are usually carried out in the first half of the year), banks' own funds registered a slight quarterly decline (of 0.5%) due to the growth of deduction items of own funds. Despite the quarterly decline, the capital adequacy ratio of the banking system stood at a 16.9% as of 30 September 2019 (17.4% as of 30 June 2017), while the ratio between the highest quality layer of the banking system's own funds (common equity Tier 1 capital) and risk weighted assets equals 15.3% (15.7% as of 30 June 2019). Aggregately, the banking system has free capital above the regulatory and supervisory requirement, whose share amounts to 10% of the total own funds (12.1% as of 31 June 2019) and is available for the banks to cover unexpected risks from operations.

The direct exposures of the banking system to currency risk and interest rate risk in the banking book are still small and account for 5.1% and 6.1%, respectively, in the total own funds. However, there is **an indirect exposure to these risks** which arises from the presence of loans with currency component 42.1% as of 30 September 2019) and loans with adjustable and variable interest rates (75.3% as of 30 September 2019, compared to 75.6% as of 30 June 2019).

The National Bank constantly monitors the movements and risks present in the banking system and will take appropriate measures if it assesses that there is a need to limit the individual risks.

[1]The new Decision aims to achieve higher compliance of the domestic legislation with the European standards and the international financial reporting standards IFRS 9. More details regarding the novelties introduced by new Decision can be found in the "Credit risk" section of this report, within the text box "Improving the Credit Risk Regulatory Framework".

I. Structure of the banking system

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

In the third quarter of 2019, there were no changes in the number of banks (fifteen) compared to the previous quarter, and the number of predominantly foreign owned banks (eleven) and the number of foreign bank subsidiaries[2] (six).

Table 1

Structure of major balance sheet positions, by banks' majority ownership (as of 30 September 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**	**43,602**	**72.6%**	**379,723**	**71.8%**	**262,474**	**80.3%**	**272,504**	**70.2%**	**17,879**	**76.2%**	**5,005**	**77.0%**
- subsidiaries of foreign banks	*6*	*37,853*	*63.1%*	*309,271*	*58.5%*	*211,868*	*64.8%*	*224,806*	*57.9%*	*15,095*	*64.4%*	*5,091*	*78.4%*
- Austria	1	2,484	4.1%	22,930	4.3%	15,769	4.8%	13,255	3.4%	923	3.9%	233	3.6%
- Bulgaria	1	1,208	2.0%	9,952	1.9%	6,726	2.1%	6,871	1.8%	381	1.6%	-1	0.0%
- Greece	1	12,898	21.5%	96,869	18.3%	66,716	20.4%	78,315	20.2%	5,462	23.3%	2,079	32.0%
- Slovenia	1	9,636	16.1%	84,353	16.0%	55,594	17.0%	67,983	17.5%	4,424	18.9%	1,674	25.8%
- Turkey	1	7,336	12.2%	53,950	10.2%	36,931	11.3%	31,544	8.1%	2,171	9.3%	675	10.4%
- France	1	4,292	7.2%	41,217	7.8%	30,131	9.2%	26,838	6.9%	1,735	7.4%	431	6.6%
- other banks in dominant foreign ownership	*5*	*5,749*	*9.6%*	*70,452*	*13.3%*	*50,606*	*15.5%*	*47,698*	*12.3%*	*2,784*	*11.9%*	*-86*	*-1.3%*
- Bulgaria	2	2,565	4.3%	24,327	4.6%	17,137	5.2%	17,080	4.4%	1,121	4.8%	258	4.0%
- Germany	1	2,594	4.3%	29,238	5.5%	22,134	6.8%	17,190	4.4%	905	3.9%	140	2.2%
- Switzerland	2	591	1.0%	16,887	3.2%	11,335	3.5%	13,428	3.5%	758	3.2%	-484	-7.5%
Banks in dominant ownership of domestic shareholders	**4**	**16,415**	**27.4%**	**148,869**	**28.2%**	**64,396**	**19.7%**	**115,731**	**29.8%**	**5,576**	**23.8%**	**1,491**	**23.0%**
- private ownership	*3*	*13,814*	*23.0%*	*138,704*	*26.2%*	*64,373*	*19.7%*	*115,731*	*29.8%*	*5,465*	*23.3%*	*1,458*	*22.4%*
- state ownership	*1*	*2,601*	*4.3%*	*10,166*	*1.9%*	*23*	*0.0%*	*0*	*0.0%*	*111*	*0.5%*	*34*	*0.5%*
Total:	**15**	**60,017**	**100.0%**	**528,592**	**100.0%**	**326,870**	**100.0%**	**388,235**	**100.0%**	**23,455**	**100.0%**	**6,496**	**100.0%**

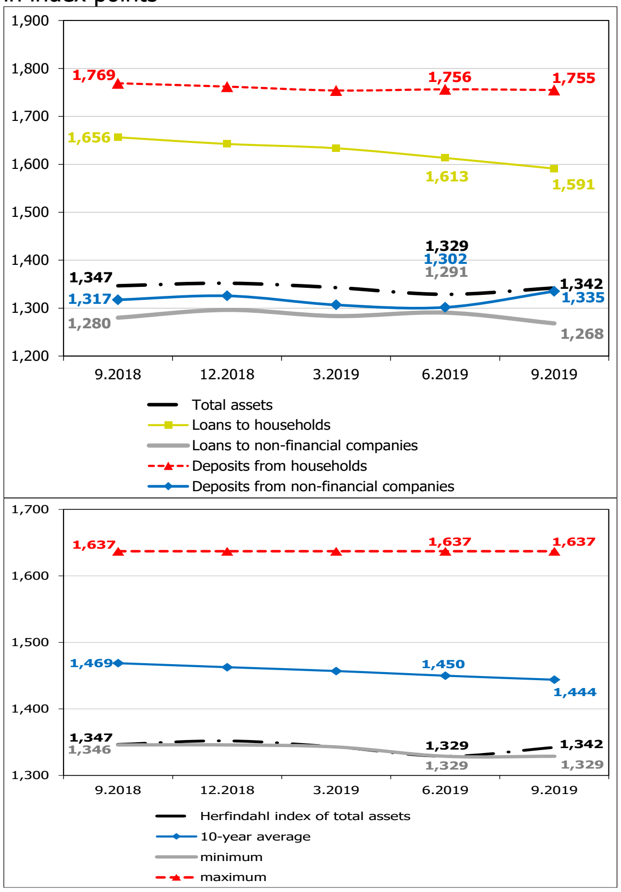
Source: National Bank, based on data submitted by banks.

*Total income and financial result are calculated for the last twelve months (30 September 2018 -30 September 2019).

In the third quarter of 2019, there were slight changes in the structure of major sheet positions in the banking system by banks' majority ownership. Banks in majority foreign ownership continue to prevail, but have reduced the majority share in all the analyzed activity categories, with the exception in the credit activity. Shares in non-financial entity

[2]In November 2019, the dominant owner of a bank changed, yet the bank remains an EU bank subsidiary with a new dominant owner.

Chart 1
Herfindahl index
in index points



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

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

Position	30.09.2019		30.06.2019	
	CR3	CR5	CR3	CR5
Total assets	56.6	74.6	56.4	74.3
Loans to households	59.4	77.4	59.6	77.5
Loans to non-financial companies	47.4	72.5	48.6	72.7
Deposits from households	69.2	79.9	69.3	79.9
Deposits from non-financial companies	51.7	77.0	49.5	76.1
Financial result*	78.6	95.6	79.2	97.1
Total revenues*	61.3	77.9	61.0	77.6

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

loans (80.3%) and financial results (77%) continue to be more pronounced.

As of 30 September 2019, all Herfindahl index[3] values are within the limits[4]. Thus, a certain decrease was registered in the Herfindahl index for credit activity, equally in loans to non-financial entities and households. Contrary to this trend, there is an increase in the Herfindahl index in total assets and non-financial corporate deposits. The Herfindahl index of total assets is far below the calculated 10-year average of this index and is almost at the level of its minimum value for the last ten years.

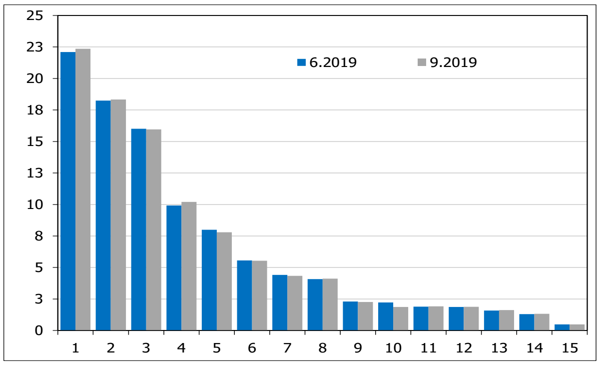
The CR3 and CR5 indicators register similar movements.

[3]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.

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

*Total income and financial result are calculated for the last twelve months (1 April 2016-31 March 2019).

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



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

The differences between the banks in terms of their share in the total assets of the banking system remain high. The spread between the banks with the largest share (22.4%) and the banks with the lowest share (0.5%) further increased compared to the previous quarter, by 0.3 percentage points. Contrary to this, the joint market share of ten banks in the system which have individual shares of less than 6% decreased by the same amount. The share of the five smallest banks in the system increased minimally by 0.1 percentage points, reaching 7.2%.

II. Risks in banking operations

1. Credit risk

In the third quarter of 2019, non-performing loans decreased significantly due to changes in credit risk management regulation (shortening the period for mandatory write-off of fully provisioned exposures, from two years to one - *in detail in text in italics*). The reduction of non-performing loans, to a lesser extent, is caused by the exclusion of part of the restructured exposures from the category of restructured non-performing exposures due to fulfillment of certain criteria that were introduced with the new regulatory framework in this domain[5]. These regulatory changes are the main driver for improving indicators that monitor the level of credit risk in the banking system, but they also aim to encourage banks to focus on managing newer non-performing loans, which are usually less provisioned. Non-performing loans decreased by 11.1% compared to their growth in the previous quarter, which reduced the rate of non-performing loans of the non-financial sector to 5.0%, which is identical to the same quarter of the previous year. By sectors, most of the quarterly decrease in non-performing loans accounted for non-financial companies. Despite the reduction of non-performing loans of enterprises, there was a certain credit risk materialization due to non-fulfillment of obligations by certain corporate clients from several different activities. The share of non-performing loans in total loans to the non-financial sector decreased by 0.8 percentage points in the third quarter and as of 30 September 2019 amounts to 8.0%. In the household segment, the decrease in non-performing loans is mainly due to mandatory write-offs (the decrease is particularly pronounced in non-performing consumer loans and credit cards, which contributed to a decrease in the ratio between non-performing and total household loans to historically lowest level of 2.1%. Contrary to this, non-performing housing loans, which began to rise in early 2019, saw double-digit growth this quarter. The growth of non-performing loans in certain activities, as well as in credit products for households, is to some extent related to the harmonization of bank portfolios with the new definition of non-performing loans (in more detail in the text in italics). Despite the reduction in the reservation level, due to the write-off of fully provisioned non-performing loans, the coverage of non-performing loans with impairment for them is relatively high (67.2%), which coupled with the satisfactory volume and quality of own funds, limits potential negative effects on banks' solvency from their full eventual non-payment.

Improving the regulatory framework for credit risk management

In August 2018 the Decision on Credit Risk Management was adopted, which came into force on 1 July 2019. This regulation aims to further improve the domestic framework for credit risk management, and also its harmonization with the European standards and requirements of the International Standard for Financial Reporting ISFR 9. The most significant novelties are in terms of the rules for acquiring non-performing and restructured credit status and the possibility for greater use of internal models amid determining expected credit loss on a group basis.

In non-performing loans, in addition to the criterion of delay days (longer than 90 days), the obligation for receiving a non-performing was introduced for the exposure for which it was determined that the client will not be able to settle its liabilities to the bank, regardless to the established collateral and the number of delay days (so called unlikeliness to pay). The existence of unlikeliness to pay from the client is calculated *on the basis of certain data and information, such as the blocked account of a client, deteriorating average risk category at the level of the banking system; deteriorating financial condition of a client; revoked work permit of the client by a competent authority; selling another credit exposure from the client with a significant loss; approval of grace period for paying the principal and interest longer than 18 months; making a write-off that significantly reduces the credit exposure. This decision introduced an obligation for the banks to treat all exposures to a certain legal entity as non-performing exposures, if the balance sheet credit exposure towards that legal entity that has not been collected for more than 90 days exceeds 20% of the total balance sheet exposure towards that entity. Also, the decision more precisely determined the conditions when a certain exposure may cease to be treated as non-performing. In addition, the period in which the credit exposures that were fully covered with impairment/special reserves are obligatory transferred to off-sheet balance records has been reduced from two to one year. This change, along with cutting the time period in which credit exposures shall be reclassified from risk category "G" to "D" (whereby exposures in "D" shall be fully provisioned) will enable faster "cleansing" of the banks' balance sheets from non-performing credit exposures, thus creating conditions for more active management of the newer and potential banks' non-performing exposures.*

In order to further encourage banks to timely change the contractual terms of the credit exposures in order to comply with the changes in the creditworthiness of the client, the Decision made changes in the requirements regarding the treatment of restructured loans. Banks shall be obligated to classify as restructured all credit exposures in which, amid changes in the contracting terms, a deteriorated financial condition of the client has been determined or the existence of deterioration signal of the financial condition of the client has been determined[6]. Thereby, the Decision makes a clear distinction between the restructured regular and restructured non-performing credit exposure, on which the procedure and conditions under which banks may exclude a certain exposure from the restructured (non-performing) credit exposure category depend. It is expected that the changes in the criteria for treating the restructured credit exposures shall give more visible results in the long run i.e. at least after one year of the probationary period[7].

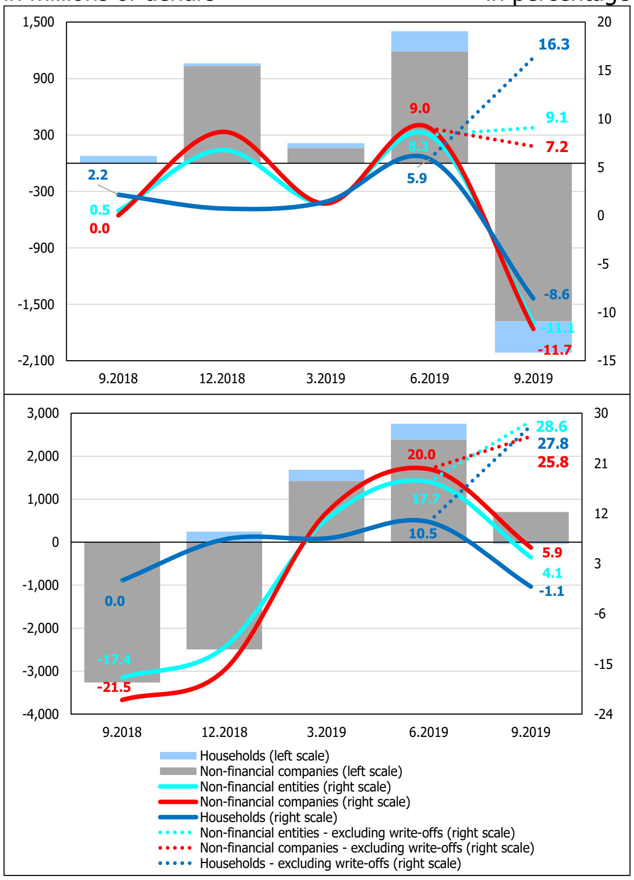
The Decision also prescribed the manner in which banks can determine expected credit loss on a group basis by grouping credit exposures in loan portfolios according to the similarity of their characteristics and credit risk. In order to determine the expected credit loss for the loan portfolio, banks shall use internal models, which in determining the probability of default rate for 12 months, default rate for the entire life and loss due to default, shall also include macroeconomic or other (market) indicators that may have an impact on cash flows.

1.1 Credit risk materialization in banks' balance sheets

In the third quarter of 2019, total non-performing loans of the non-financial sector decreased by 11.1% (Denar 2,019 million)[8]. This reduction is largely based on the amendment to mandatory write-off

[5] Source: information obtained by banks on the effects of the new decision.
[6] Signs of the deteriorating financial condition of a client exist if the client, at least in the last three months has been late for more than 60 days in settling all or part of the liabilities to the bank.
[7] The probationary period covers two years from the date of restructuring or from the date when the conditions for exclusion of the exposure from the restructured non-performing exposure category have been met.
[8] The volume of this downward shift exceeds the growth of these loans in the previous quarter which amounted to Denar 1,401 million or 8.3%.

Chart 3
Quarterly (above) and annual (below) change in non-performing loans of non-financial entities
in millions of denars in percentage



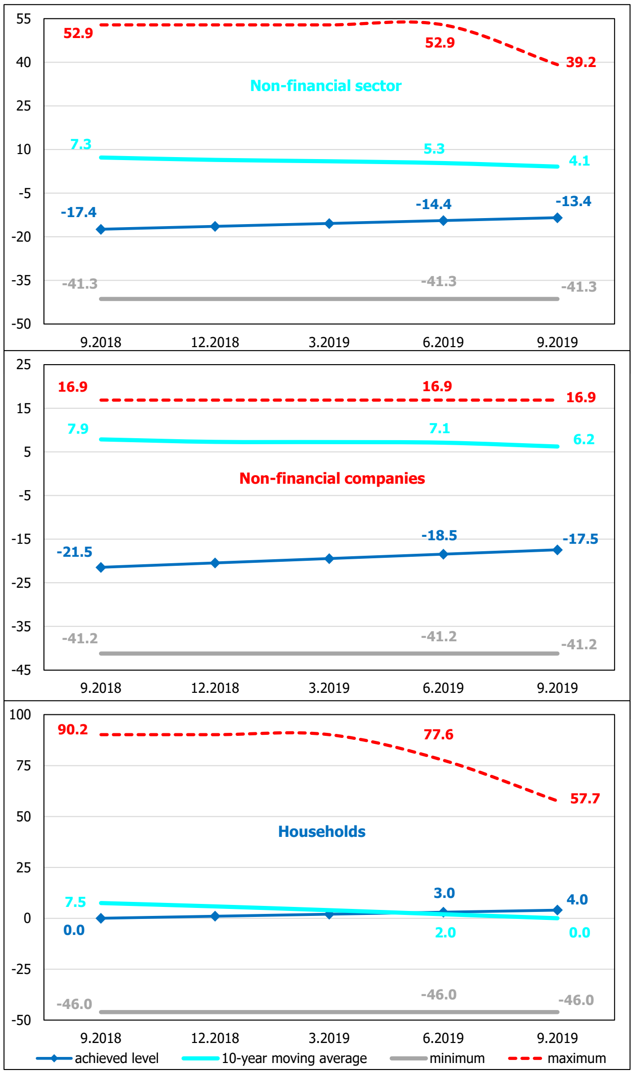
Source: National Bank, based on data submitted by banks.
Note: The dotted lines show the growth of non-performing loans in the third quarter of 2019, excluding the effect of write-offs made only in this quarter.

regulation (*in more details in the text in italics*) However, the effect of the regulatory changes from 2019 on the reduction of non-performing loans is significantly lower compared to the initial effect in the second quarter of 2016 (write-off in the amount of Denar 9,711 million, or 32.0%), when the obligation for mandatory write-off begun to apply, which at the time referred to all receivables for which banks had fully covered the credit risk for at least two years ago. By isolating the write-offs effect, non-performing loans of the non-financial sector register a growth of 9.1%, which is faster compared to the previous year, primarily due to the non-performing household loans.

The decrease in the volume of non-performing loans mainly resulted from their decrease in enterprises (by Denar 1,682 million or 11.7% compared to the growth of Denar 1,190 million or 9.0% in the second quarter of 2019). By activity, the largest quarterly decrease was registered at the non-performing loans of the clients from the trade activity (of Denar 997 million or 23.0%) and industry (of Denar 550 million or 11.9%)[9], followed by non-performing loans of the construction sector (of Denar 133 million or 4.5%) and agriculture (of Denar 95 million or 13.1%). In almost all the above activities, the decrease of non-performing loans mainly results from the mandatory write-offs, but in some cases is also due to the collection (usually through debt assumption and assuming and selling the collateral). To a significantly lesser extent, the reduction of non-performing loans is due to the exclusion of part of the restructured exposures from the category of restructured non-performing exposures due to fulfillment of

[9] The decrease is mostly pronounced in the food industry (of Denar 384 million or 36% and other manufacturing industry (of Denar 248 million or 22.8%). Excluding the growth of non-performing loans in the textile industry, other industrial branches do not register significant changes.

Chart 4
Annual growth rate of non-performing loans: achieved, 10-year moving average, maximum and minimum level, by sector (without the write-offs effect*)
in %



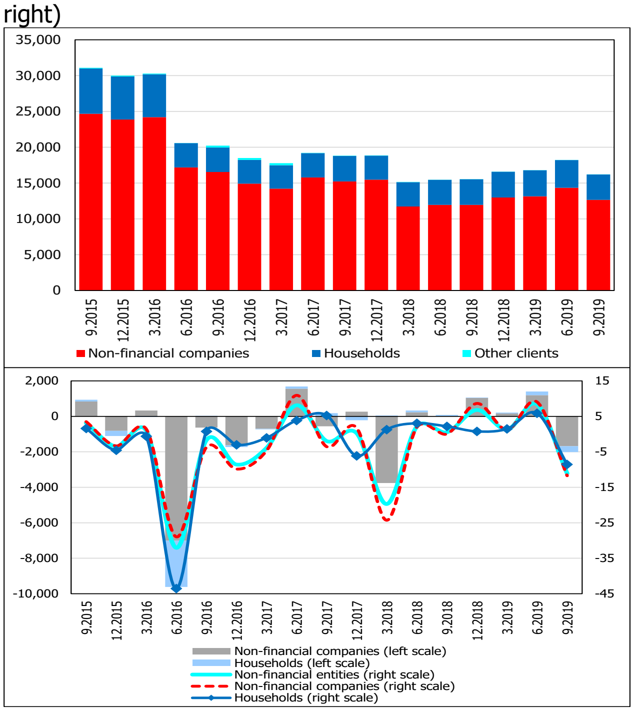
Source: National Bank, based on data submitted by banks.
*Note: The effect of all mandatory write-offs made in the period 1 January 2016 - 30 September 2019 is excluded.

certain criteria that were introduced with the new regulatory framework in this domain[10]. By individual activities and clients, new non-performing loans are noticed. Thus, in the trade activity, construction, chemical[11] and food industry, is mainly due to non-fulfillment of the credit obligations of several clients, but of individual small amounts, while in professional, scientific and technical activities and transport and storage is due to the transition of several slightly bigger clients to non-performing status. The growth of non-performing loans of legal entities might be related to the changes in the definition regarding non-performing exposures[12], but the National Bank does not possess data for this amount. Without the effect of the write-offs made in the third quarter of 2019, the growth of non-performing loans would have decelerated compared to the second quarter and would have amounted to 7.2%.

Household non-performing loans decreased by 8.6% or Denar 331 million on a quarterly basis (compared to the growth of 5.9% or Denar 214 million in the previous quarter). This decrease is mostly attributed to the mandatory write-offs and is mostly pronounced in consumer loans (which decreased by Denar 232 million or 9.8% compared to the growth of Denar 132 million or 5.9% in the second quarter). Non-performing housing loans registered a double-digit growth for the first time after six months (i.e. Double higher growth compared to the previous quarter), continuing the upward trend from the beginning of 2019, after having mainly downward quarterly dynamics in the last three years. The growth of non-performing loans in this credit product arises from dozens of clients in both banks. Excluding the effect of mandatory write-offs, household loans register a double-digit quarterly growth

[10] Source: information obtained by banks on the effects of the new decision.
[11] This caused an increase in the non-performing loans of the chemical industry of Denar 121 million or 28.7%.
[12] All exposures towards a certain legal entity become non-performing, if the balance sheet exposure towards that entity that has not been collected longer than 90 days exceeds 20% of its total balance sheet exposure.

Chart 5 Dynamics (above) and annual change (below) of non-performing loans by sector, after the introduction of the regulatory framework for mandatory write-off
in millions of denars(above)
in millions of denars (below left) and in percentage (below right)

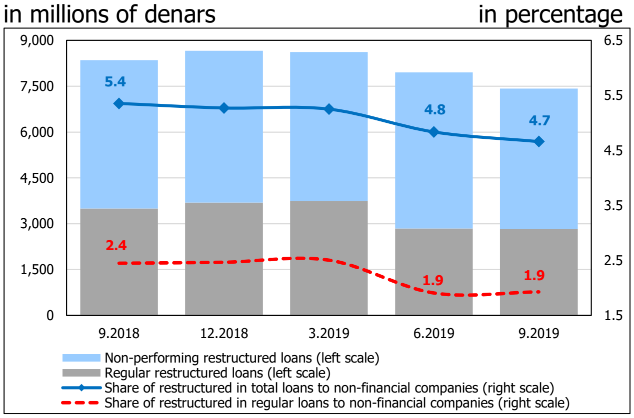


Source: National Bank, based on data submitted by banks.

rate of 16.3%, which is much higher compared to the growth in the second quarter.

Due to the upward trend of non-performing loans in both non-financial sectors, the annual growths rate exceeded their ten-year moving average in the last one to two quarters[13].

Chart 6 Restructured loans of non-financial entities
in millions of denars in percentage



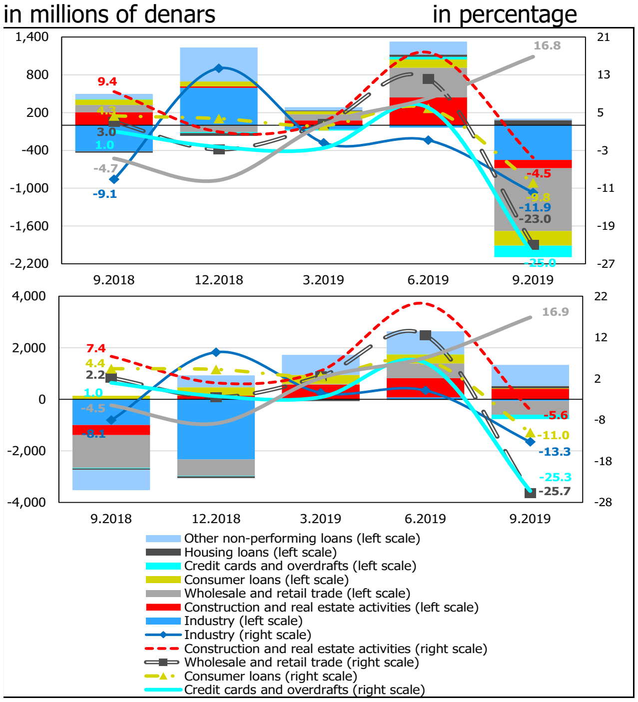
Source: Credit Registry of the National Bank, based on data submitted by banks.

Regular loans with reduced credit quality[14] i.e. loans that can be sources of new non-performing loans in the short term decreased by 10.4% this quarter (compared to the moderate growth of 4.2% in the previous quarter). Also, their share in the total portfolio is small and no significant credit risk materialization from them has been registered. Namely, these loans cover 1.7% of total loans to the non-financial sector, and only 1% of the loans with a delay up to 90 days obtained non-performing status in

[13] The effect of all mandatory write-offs made in the period 1 January 2016 - 30 September 2019 is excluded amid determining the ten-year average and annual growth rate.
[14] For the purposes of this analysis, regular loans with reduced credit quality are considered regular restructured loans and overdue regular non-structured loans where the delay in collection is between 61 and 90 days (possible extended delay in the collection of these regular loans for an additional 1-30 days would lead to their transition to non-functional status). Regular restructured loans would likely obtain non-performing status if banks did not change the credit terms of consumers facing financial difficulties.

Chart 7
Quarterly change (above) and annual change (below) of non-performing loans by activity (non-financial entities) and credit products (households)

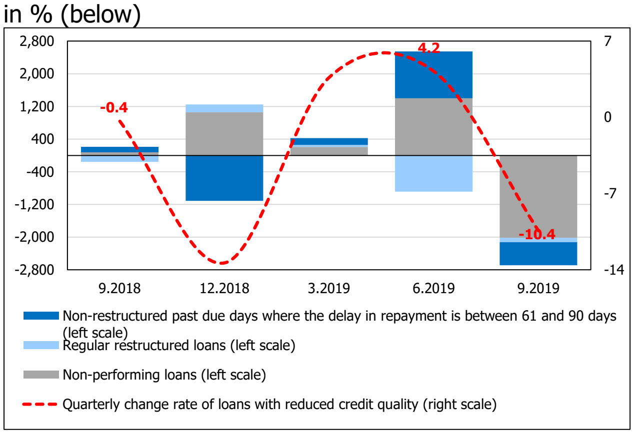
in millions of denars in percentage



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

Chart 8
Non-performing loans and regular loans of non-financial entities with reduced credit quality*, quarterly change (above) and share in total loans of non-financial entities (below)

in millions of denars (above) in %
in % (below)



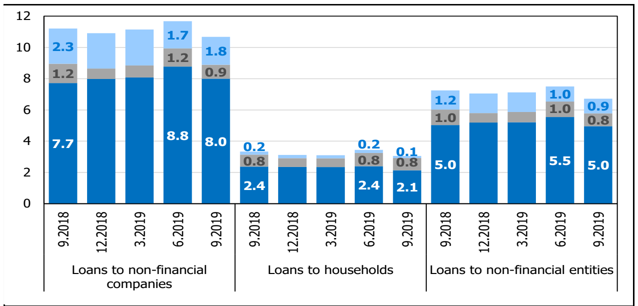
October 2019[15], which indicates a solid collection of these overdue loans.

The share of restructured loans in total loans is also small (2.4%). The total restructured credit portfolio of the banks registered a quarterly decrease by Denar 596 million or 7.1% which mostly (around 82%) is due to the reduction of non-performing restructured loans as a result to the regulatory changes (mandatory write-off and introduced possibility to returning to regular status those claims that meet the prescribed criteria). Almost the entire restructured credit portfolio (of around 95%) consists of legal entities, where these loans account for around 5% of total corporate loans, but have an extremely high rate of non-performing loans (61.9% on 30 September 2019).

The quality of banks' credit portfolio, measured through the share of non-performing loans in total loans of the non-financial sector improved for 0.5 percentage points in the third quarter of 2019. On 30 September 2019, this rate is 5%, returning to the level of the same quarter in the previous year, and is consistently below the level of its 10-year moving average. Excluding the effect of write-offs (all mandatory write-offs made after 1 January 2016), the share of "bad" loans in the total credit portfolio is 6.0% and is higher by 0.5 percentage points compared to the previous quarter.

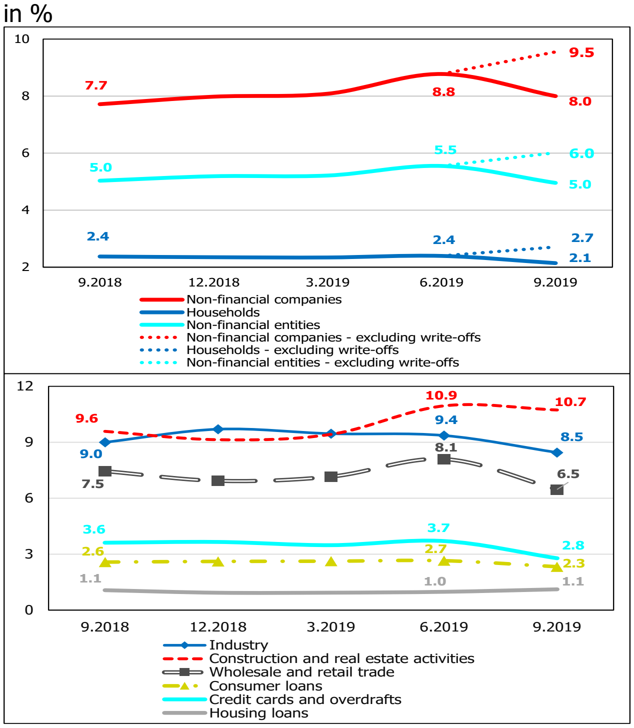
A quarterly improvement of the ratio between non-performing and total loans by 0.8 percentage points was registered in the **portfolio of non-financial corporations**, where **8.0% of total loans are non-performing** as of 30 September 2019. The reduction of this rate is mainly do the mandatory write-offs, amid reduced credit

[15] For households, this percentage is significantly higher and amounts to 4.0%, while for the total non-financial sector is 1.4%.



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

Chart 9 Rate of non-performing loans of non-financial entities, by sector (above) and by activity and credit product (below)
in %



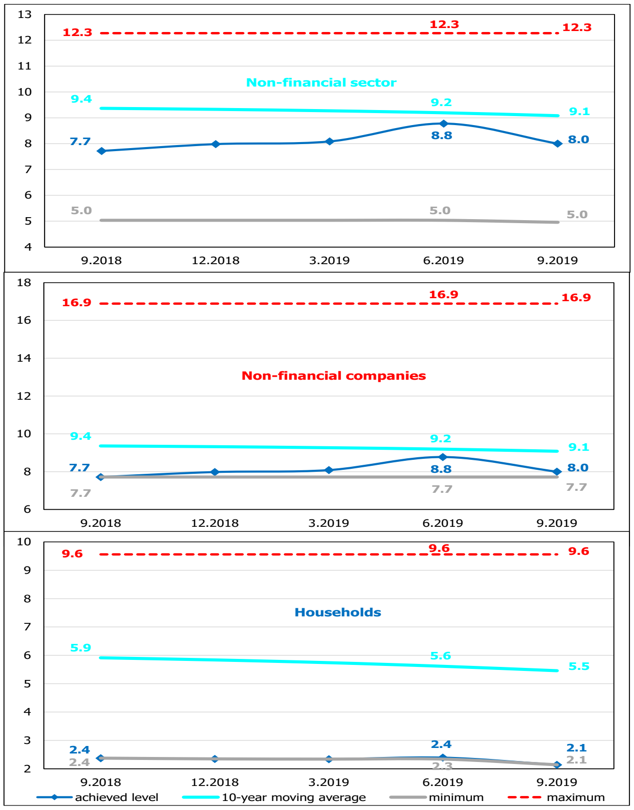
Source: Credit Registry of the National Bank, based on data submitted by banks.
The dotted lines show the growth of non-performing loans in the third quarter of 2019, excluding the effect of write-offs made only in this quarter.

support to this sector[16]. By activity, the ratio between non-performing and total loans[17] decreased in the three most important activities for the domestic economy[18], which also account for 80% of the non-performing (as well as total) credit portfolio of the corporate sector. The decrease of this indicator was especially pronounced in the trade activity, where the rate of non-performing loans was reduced to 6.5% (from 8.1% as of 30 June 2019). Excluding the effect of the write-offs, the rate of non-performing loans amounts to 17.8% and is higher by 0.8 percentage points compared to the previous quarter. The rate of non-performing corporate loans (without the effect of write-offs) is over the 10-year moving average of this rate and registers an increase at the beginning of 2019, thus equaling the maximum value[19] .

In the household credit portfolio, the share of non-performing loans in total loans decreased by 0.3 percentage points, to a new historical low of 2.1%. The small downward shift of the rate of non-performing loans, in addition to the mandatory write-offs, is also due to the sold credit support of this sector. Excluding the effect of the write-offs, this rate registers a growth of 0.2 percentage points compared to the second quarter and amounts to 5.3%. The growth of non-performing household loans (without the effect of all write-offs) is below its 10-year moving average and close to its minimum value, although marking a slight deviation from the minimum[20].

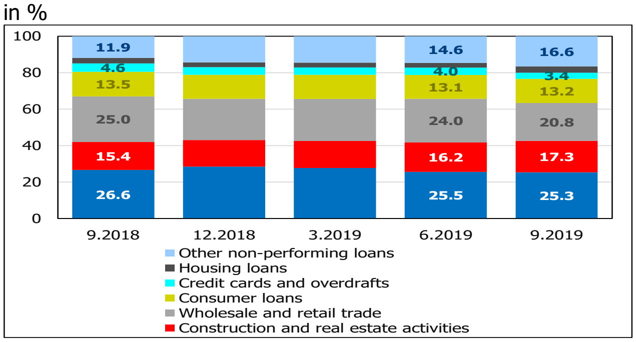
[16] In the third quarter of 2019, total loans to non-financial companies decreased by Denar 5,179 million or by 3.2%, which is more than the amount of mandatory write-offs for this sector in the third quarter, which amounted to Denar 2,710 million.
[17] Analyzed in terms of detailed economic activities and industrial branches, the rate of non-performing loans registers a more pronounced upward trend only in the "chemical industry", "transport and storage", "professional, scientific and technical activities", "administrative and auxiliary service activities" and "other service activities". These activities account for only about 14% of non-performing and total loans of the corporations.
[18] Three most important activities refer to total industry, trade activity and construction.
[19] The lowest share of non-performing loans in total loans of non-financial corporations of 7.7% was registered at the end of the same quarter in the previous year.
[20] The lowest share of non-performing loans in total household loans without the effect of write-offs in the amount of 4.9% was recorded at the end of the last quarter of 2016, but also in several quarters later (31 March 2017 and during the period 31 December 2017 - 30 September 2018).

Chart 10 Rate of non-performing loans, 10-year moving average and maximum and minimum level (excluding the write-offs effects)*, by sector
in %



Source: National Bank, based on data submitted by banks.
Note: The effect of all mandatory write-offs made in the period 1 January 2016 - 30 September 2019 is excluded.

Chart 11 Structure of non-performing loans of the banking system, by activity (non-financial entities) and credit products (households)
in %

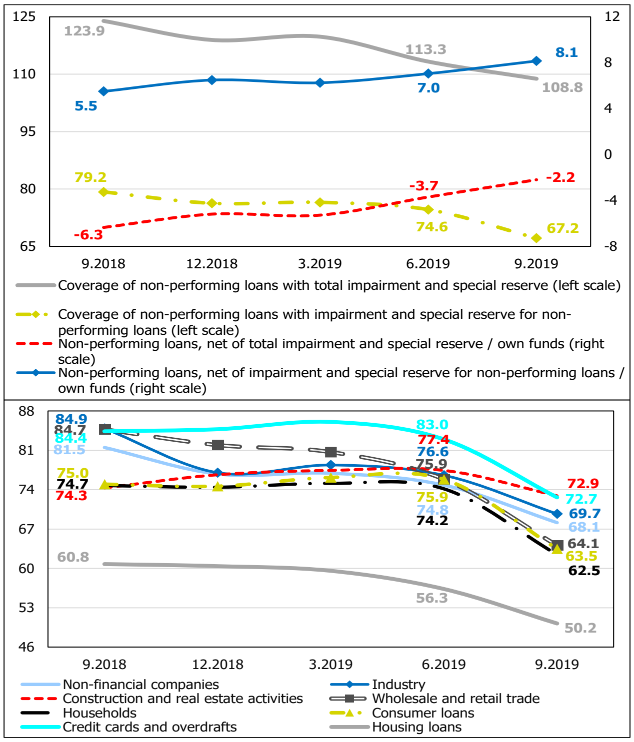


Source: Credit Registry of the National Bank, based on data submitted by banks.

Loans to non-financial companies account for the largest share (78.1%) of the non-performing credit portfolio of the banks[21], despite the reduction in their share by 0.5 percentage points compared to the previous quarter. Nearly half (or 46%) of the non-performing credit portfolio of the banks falls into two sectors - "industry"[22] and "wholesale and retail trade), whose share in the total non-performing loans decreases due to the growth of the share of the construction sector and transport and storage[23]. From the household portfolio, consumer loans have the largest share in the total non-performing credit portfolio of the banks (13.2%), but the share of housing loans also increased (to 3.4%, compared to 2.6% on 30 June 2019).

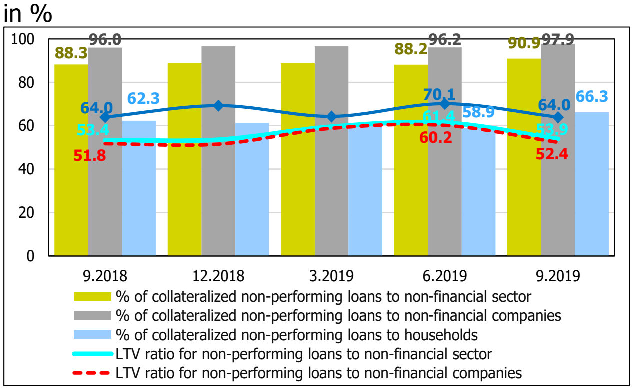
[21] Other non-performing loans include all other economic activities of the non-financial companies according to NKD Rev. 2 except listed in the chart and loans for purchasing and renovation of office space, car loans, other loans and loans to retailers in households.
[22] Industry covers the processing industry, mining and quarrying and the supply of electricity, gas, heating and air conditioning.
[23] In the structure of total non-performing loans the share of clients from the construction sector increased to 17.3% (16.2% as of 30 June 2019), and transport and storage to 4.3% (3.5% as of 30 June 2019).

Chart 12
Coverage of non-performing loans with impairment (above) and by activity and credit product (below)
in %



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

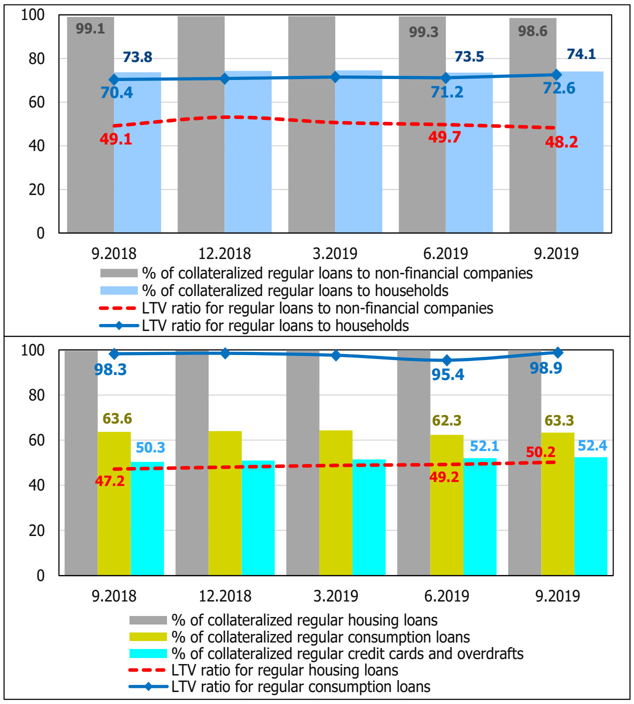
Chart 13
Non-performing loans (above) and regular loans (middle and below) for which collateral has been provided and LTV indicator, by sector
in %



The volume of unexpected losses i.e. negative effects of the possible non-collection of non-performing loans have a limited impact on the solvency of the banking system. Namely, non-performing loans are to a significant extent covered by allocated impairment (67.2%) despite the decrease compared to the previous quarter (when it was 74.6%). The main reason for the downward trend of the provision level of non-performing loans are the mandatory write-offs. The non-provisioned amount of non-performing loans is not small and represent 8.1% of the own funds of the banking system, but assuming its complete non-collection, it would not jeopardize the solvency of the system. The coverage of non-performing loans with provisions is higher in the credit portfolio of non-performing companies (68.1%), and by activity the coverage is higher in the construction sector (72.9%). In contrast, non-performing housing loans are traditionally the least provisioned (50.2%), which is supported by the collateral established for them.

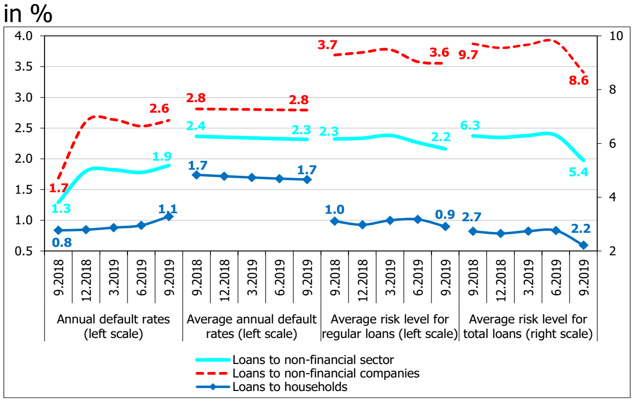
In addition to the high coverage of non-performing loans with provisions, banks also maintain a high percentage of loan collateral, which is particularly pronounced in corporations (for 97.9% of non-performing loans and 98.6% of regular corporate loans collateral is established[24]). Thereby, banks provide the higher credit risk from corporate lending and by applying a relatively favorable ratio between the loan amount and appraised collateral value (which is 48.2% for regular loans). In households[25], the percentage of the collateral for loans, including non-performing loans, is lower (slightly under 70%), mainly due to credit cards and negative balance on current accounts and consumer loans, where for about half no collateral has been established.

[24] Most often in the form of equipment, machines, factory, warehouses and alike.
[25] Banks do not report the collateral amount, in cases when the collateral is in the form of guarantor and/or bill (draft) or co-applicant, which contributes to the higher value of LTB indicator for households. This is especially true for consumer loans (including credit cards and negative current account balances), where the guarantor and/or bill (draft) is a relatively common type of collateral.



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

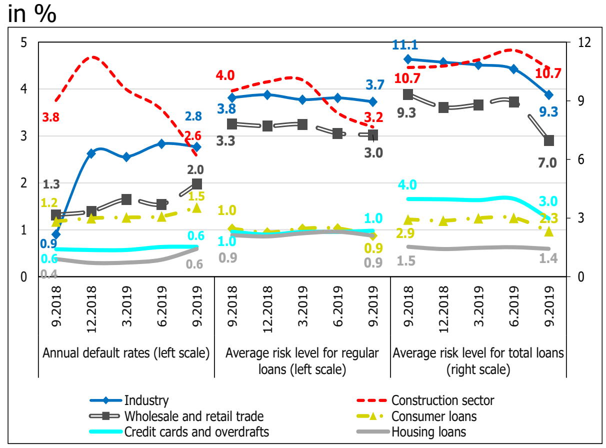
Chart 14
Annual default rates and average risk level of regular and total loans, by sector (above) and selected activities and credit products (below)
in %



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

The annual non-collection rate[26] of regular credit exposure of non-financial sector deteriorated[27] in both sectors compared to the previous quarter. Households generally have a lower reserve ratio of the regular loan portfolio given the lower inherent risk due to its significant dispersion. But, at the end of September 2019, the average provision of regular household loans was lower than the default rate for the first time, which signals the need for further careful monitoring of the quality of this segment from banks' credit portfolio[28].

Chart 24
Annual default rates and average risk level for selected activities and credit products
in %



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

In the third quarter of 2019, banks wrote-off Denar 3,687 million i.e. 20.2% from the total non-performing loans at the end of the second quarter. These write-offs are a result of the introduced obligation to write-off claims that have been

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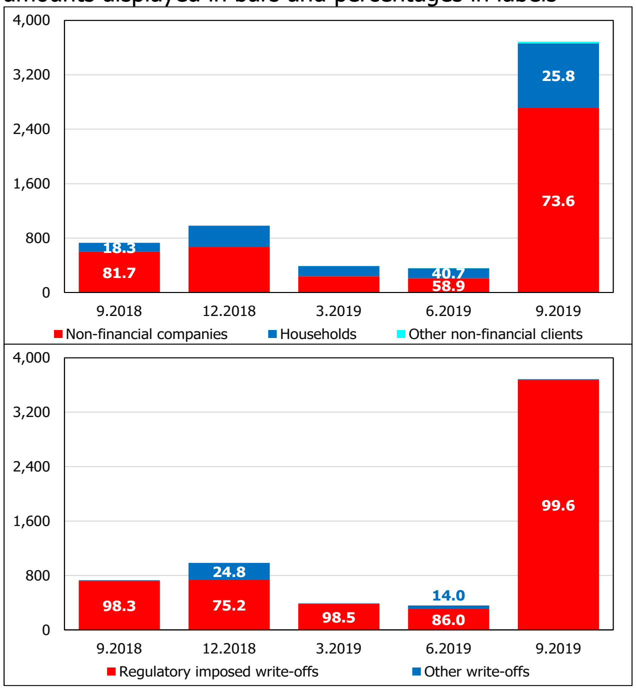
[26] The annual default rate is calculated as a percentage of the credit exposure with regular status, which for a period of one year turns into exposure with non-performing status. The average annual default rates and the standard deviation are calculated from the annual default rates realized for the period from 31 March 2019 until the date for which the average i.e. Standard deviation is calculated.

[27] In terms of individual activities and credit products, the annual default rate registers a deterioration in wholesale and retail trade, housing and consumer loans. In all the activities from the corporate credit portfolio, the allocated provisions are above the amount suggested by the annual default rate.

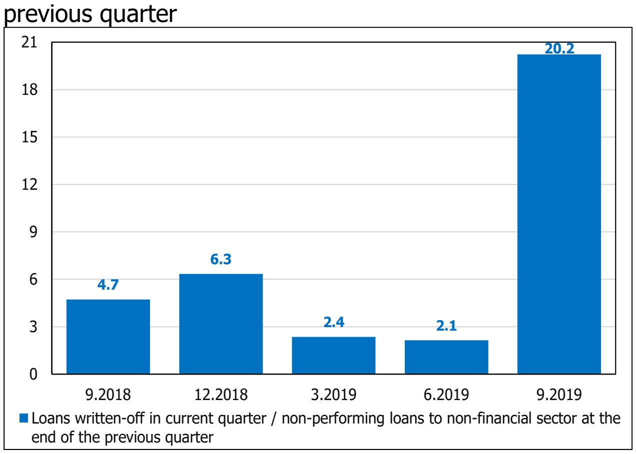
[28] By product, only consumer loans have less allocated provisions (by 0.6 percentage points) than the realized annual default rate of regular loans (but if we take into account the provisions of total loans, both regular and non-performing, the average with impairment is significantly above the default rates).

Chart 15
Structure of written-off non-performing claims by sector (above), type of write-off (below)
amounts displayed in bars and percentages in labels



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

Chart 16
Non-performing loans write-offs
in percentages of non-performing loans at the end of the previous quarter



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

fully provisioned for more than one year. However, this volume of write-offs is about 3 times lower than the initial effect of write-offs made during the first introduction of such measures in 2016 (mandatory write-off of claims that have been fully provisioned for longer than two years). In terms of sectors, on an average, around 70% of the write-offs for the last five quarters refer to non-financial companies. The mandatory write-off of non-performing loans will continue in the next period, given the fact that on 30 September 2019, 21.6% of the non-performing loans are fully covered with impairment and in the next at least one year will be written-off if not collected in the meantime.

1.2 Potential sources of future credit risk materialization

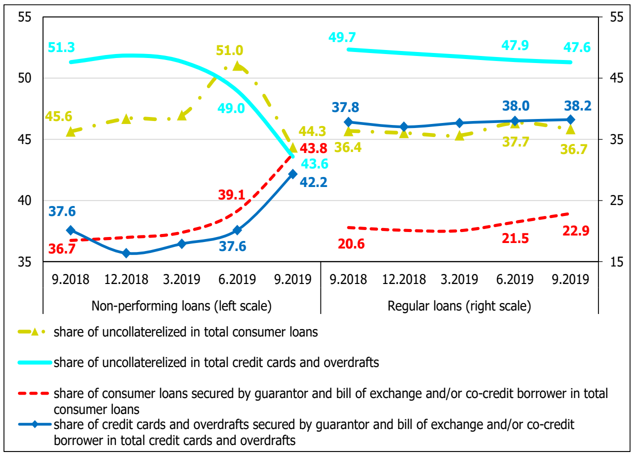
Certain structural features and unfavorable trends in households may be potential sources of new non-performing loans. This primarily refers to the growing indebtedness of households, in the long run[29] in which the creditworthiness of the clients in uncertain.

In order to cover the unexpected losses from the long repayment period of consumer loans, since 2016, a higher capital requirement for consumer loans with longer maturity equal or longer than eight years has been applied (risk weight of 150%). In addition, the quality of these loans is relatively good. Almost all housing loans (92.8%) are approved with maturity equal or longer than 10 years[30], but these loans are characterized by extremely good quality and low rate of non-performing loans.

Despite the growth of household debt, however, the average monthly liability per borrower registers a minor increase, which means that regardless of the credit growth, banks adjust their loan maturity by

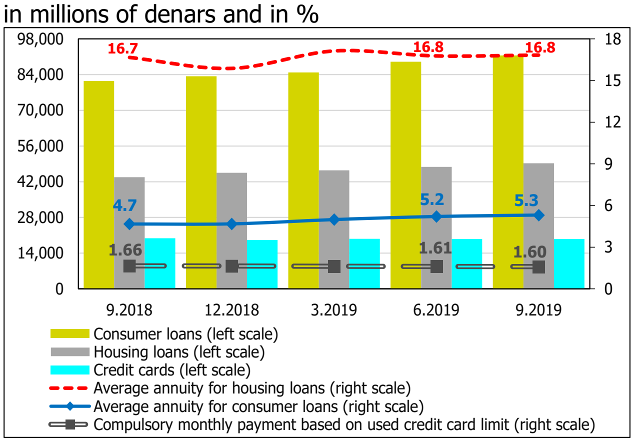
[29] In the third quarter of 2019, long-term household loans accounted for 91.4% of total household loans.
[30] Almost 60% of regular housing loans are approved with maturity equal or longer than 20 years.

Chart 17
Uncollateralized consumer loans and credit cards and negative current account balances secured by only guarantor and bill (draft)
in %



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

Chart 18
Consumer, housing loans and credit cards, balance and average annuity
in millions of denars and in %



Source: Credit Registry of the National Bank, based on data submitted by banks.
Note: For the purposes of this analysis, the mandatory monthly repayment based on used credit card limits is set at 5%, although the fact that individual banks have prescribed different limits for certain credit card types has not been excluded.

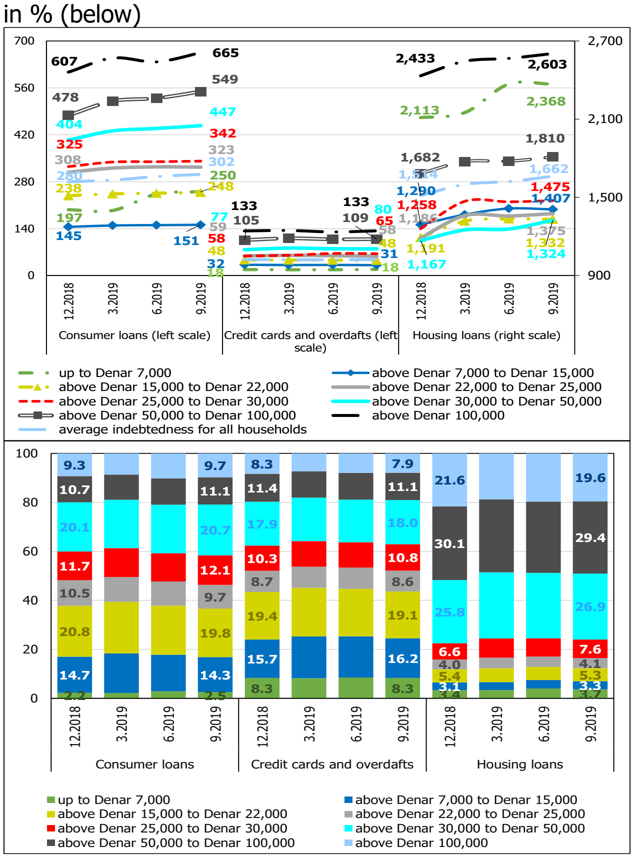
maintaining the usual average annuity amount, without causing significant changes in the debt burden of the borrowers. An exception to this are consumer loans where the average annuity increased by 2.0% compared to the previous quarter i.e. 13.7% or by almost Denar 500 in the past one year period. Also, the annual growth of the average annuity for consumer loans exceeds this growth for the balance in the total consumer loan portfolio of the banks (by 12.3% in the third quarter).

In the third quarter of 2019, there were no significant changes in terms of the structure of credit exposure to households according to their monthly income. Around 40% of the total credit exposure to households is concentrated in households with net salary equal or below the average net salary for the third quarter of 2019. This percentage is even higher in credit cards and negative current account balances and consumer loans and amounts to around 50%[31], while in housing loans is significantly lower (16.4%). However, according to the volume of monthly income, the category of borrowers with a net salary equal or below the average have the lowest average debt per household.

In terms of the structural features of the loans to non-financial companies, the concentration may have a significant impact on the risk materializations associated with this credit portfolio of the banks. It should be borne in mind that around 80% of total loans to non-financial companies fall into three activities (industry, wholesale and retail trade and construction and real estate activities), whose business performances are significant for the quality level of the credit portfolio of the banks. In fact, precisely the credit portfolio composed of

[31] Separately, 46.3% and 52.2% of the exposure based on consumer loans and credit cards and negative current account balances, accordingly, is concentrated in households with net salary equal or below the average net salary.

Chart 19
Average debt by household (above) and structure of credit exposure (below) by consumer, housing loans and negative current account balances, by amount of monthly income
in millions of denars(above)
in % (below)



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

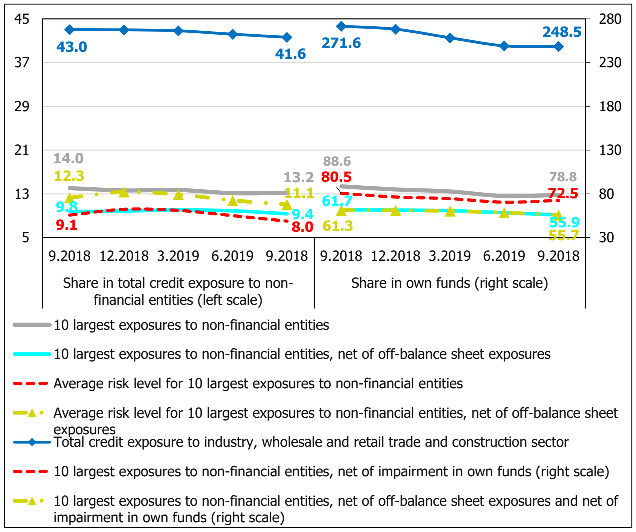
banks' clients from these activities[32] has the largest levels of the indicator for the share of non-performing in total loans, and at the same time the banks have allocated the highest amount of impairment, this providing the highest coverage with the provisions[33].

Banks' exposure to ten largest exposures to the non-financial sector, (for each individual bank) has a share of 13.2% in the total credit exposure of the banking system. These loans cover almost 80% of the own funds of the banking system (from 42.4% to 328.5% per individual bank[34]). Thereby, on an average, banks provisioned these exposures with 8.0%). If the ten largest exposures decreased for the off-balance sheet exposure, then these exposures occupy around 55% of the own funds, and for them banks have provided higher coverage with provisions of 11.1%.

The high (although declining) share of loans with currency component and loans with fixed and adjustable interest rate are pointed out as a possible source of indirect credit risk. As of 30 September 2019, loans with currency component approved to households have a share of 44% in the total loans of this sector (44.6% at the end of the second quarter), while in non-financial companies this share is lower and amounts to 38.1%. In the past seven years (as of 30 September 2012) the share of loans with currency component in total loans to non-financial companies decreased by 22.8 percentage points, while in the household credit portfolio these decrease is only 2.0 percentage points. However, the possibility of the materialization of this risk decreases given the strategy of the National Bank for

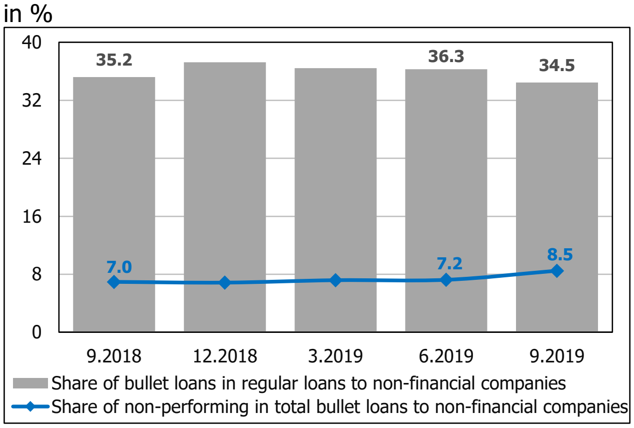
[32] Despite the improvement of this indicator for the total industrial activity by 0.9 percentage points to 8.5% and for the processing industry by 1.1 percentage points to 6.5%, the share of non-performing in total loans is the highest in some industrial branches, such as mining and quarrying (10.2%), other processing industry (18.0%), and also in construction (12.8%) and information and communication (11.2%).
[33] The coverage of non-performing loans with impairment is higher in the construction sector (by almost 5 percentage points) and industry (by 1.6 percentage points), but lower in trade activity (by 4.0 percentage points) compared to the coverage for the overall coverage of the non-financial sector.
[34] The Development Bank of North Macedonia AD Skopje is not included in determining the lowest and highest share of 10 largest exposures in own funds by a separate bank due to the small credit exposure of this bank to the non-financial sector.

Chart 20
Concentration of credit exposure to non-financial entities
in %



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

Chart 21
Bullet loans of non-financial companies
in %



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

maintaining fixed foreign exchange rate of the denar against the euro. As of 30 September 2019, loans with floating and adjustable interest rate have a share of 19.6% and 35.6%, respectively in the total household loans (17.7% and 30.1%, respectively on 30 June 2019). In the credit portfolio of non-financial companies, the share of loans with floating and unilaterally adjustable interest rate amounts to 50.4% and 19.5%, respectively (47.2% and 23.5%, respectively on 30 June 2019).

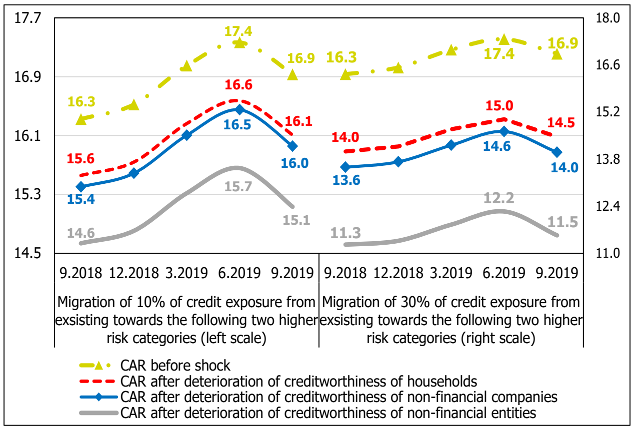
Another feature of the loans of the non-financial companies that should be closely monitored is the **bullet loans level.** The share of these loans is relatively high, but reduced in the third quarter of 2019 (slightly under 35% of the regular loans of non-financial companies). The level of credit risk materialization of the bullet loans registers a deterioration compared to the previous quarter (from 7.2% to 8.5% as of 30 September 2019), and is higher prepared to the total loans to non-financial companies, as well as in most activities[35].

1.3 Stress testing of the resilience of the banking system to increasing credit risk

The results from the conducted stress test confirm the resilience of the banking system to the stimulated shocks. The capital adequacy ratio of the banking system decreases below 8% amid individual hypothetical shocks. Assuming the transfer of 30% of the credit exposure to non-financial entities, from the existing to the next two categories with higher risk, the capital adequacy rate of the banking system decreases to 11.5% (by 5.4 percentage points compared to the initial capital adequacy ratio), which is slightly worse compared to the results of the same simulation at the end of the second quarter of 2019 (when the decrease

[35] The rate of non-performing loans for bullet loans is higher in industry (8.5%) and trade (5.7%), while in construction is lower (9.8%) compared to the total credit portfolio composed of clients from this activity (10.7%).

Chart 22
Capital adequacy ratio prior and after hypothetical shocks to certain segments of credit exposure
in %



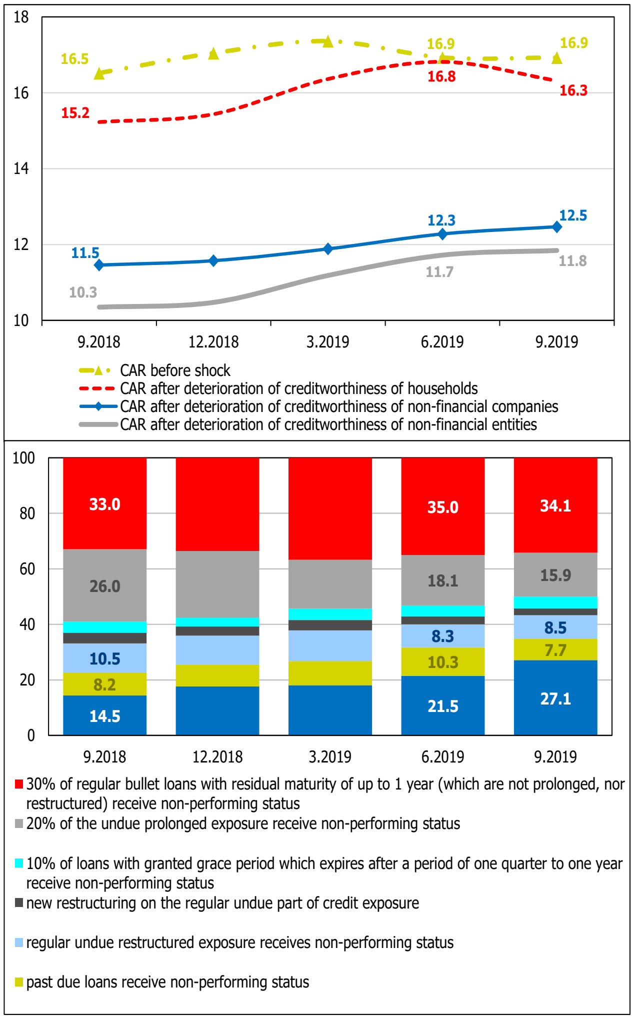
Source: Credit Registry of the National Bank, based on data submitted by banks.

compared to the initial level was 5.1 percentage points). By activity, the assumed deterioration of the credit exposure quality to those activities where the concentration of the total credit exposure is the highest has the greatest effect on the capital adequacy ratio. By household credit products, the exposure based on consumer loans as the most common product has the greatest negative impact on the capital adequacy ratio.

The resilience of the banking system is also examined by conducting an extreme simulation which is based on the combination of seven hypothetical shocks of the deterioration of the quality of the credit portfolio towards the non-financial sector[36]. Even in this extreme simulation, the adequacy of the banking system does not decrease below the prescribed minimum. Namely, after this simulation, the capital adequacy rate decreases by 5.1 percentage points, to the level of 11.8%, which is a better result compared to the end of the previous quarter (11.7% i.e. a decrease of 5.6% compared to the initial capital adequacy level). The moderate improvement of the results after this extreme simulation, despite the lower capital adequacy rate prior the conduction of the simulation, is to some extent related to the regulatory write-offs during the quarter. The assumed deterioration of the quality of bullet loans of one third of the total reduction of the capital adequacy amid the combined shock has the greatest negative effect on the capital adequacy ratio. In addition to this, the negative impact from the assumed full non-collection of non-performing loans of the non-financial sector is high (27.1% of the total decline of the capital adequacy amid the

[36] Seven hypothetical shocks include: 1. full non-payment of existing non-performing loans; 2. total overdue loans receive non-performing status; 3. total regular undue restructured exposure receives non-performing status; 4. banks conduct new restructuring or the regular undue part of credit exposure which, according to the volume corresponds with the amount of restructured exposures that have received the non-performing status from the previous item; 5. 10% of the loans with approved grace period that expires after a period from one quarter to one year receive non-performing status; 6. 20% of the undue prolonged exposure receive non-performing status; 7. 30% of regular bullet loans with residual maturity of one year (which are neither prolonged, nor restructured) receive non-performing status.

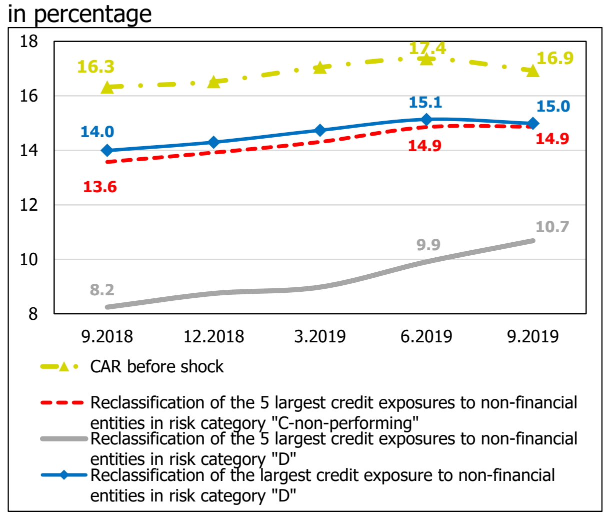
Chart 23
Capital adequacy ratio prior and after hypothetically combined shocks to different segments of credit exposure (above) and contribution of certain shocks on the reduction of capital adequacy rate (below)
in %



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

combined shock), as well as the hypothetical deterioration of the quality of the prolonged loans (accounting for 15.9% of the total decrease of the capital adequacy ratio of the banking system), despite the reduced contribution compared to the previous quarter. The reduced contribution of overdue loans that turn into non-performing status is also noteworthy (from 10.3% of the total decrease of the capital adequacy ratio as of 30 June 2019 to 7.7% at 30 September 2019, respectively).

Chart 25
Effects on the capital adequacy ratio from reclassifying the largest credit exposures to non-financial entities (including connected entities) in the category with higher risk
in percentage

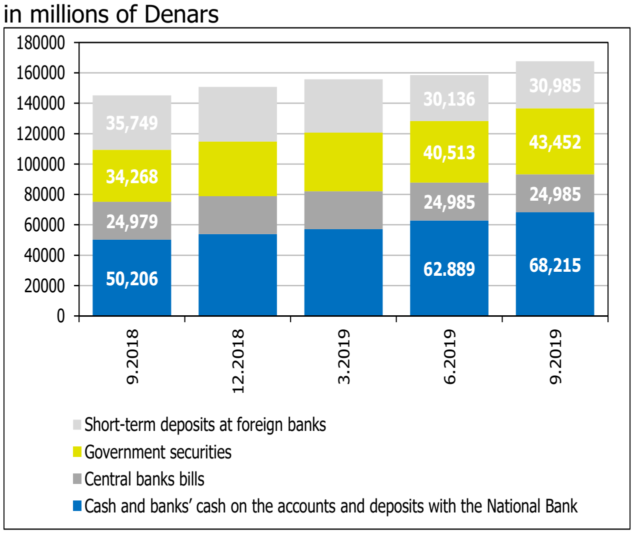


Source: Credit Registry of the National Bank, based on data submitted by banks.

2. Liquidity risk

In the third quarter of 2019, Macedonian banks had a solid volume of liquid assets and as a result the liquidity risk remained within acceptable limits. The total liquid assets of the banks continue to grow both annually and quarterly, at a more accelerated pace compared to the previous quarter. In their structure, the growth was driven by the increased funds in the denar accounts with the National Bank, and the increased investments of banks in domestic long-term government securities (placements in domestic government Eurobonds issued on foreign markets) had a significant contribution. Such movements were also reflected on most liquidity indicators, which are still maintained in the safe zone, but also on the composition of assets and liabilities, according to their residual maturity, which register a slight deepening of the gaps in all maturity segments. Confirmation of the satisfactory volume of liquid assets that enables the banks to perform their business activities smoothly are the simulations for combined liquidity shocks, whose results indicate proper liquidity risk management by the banks and satisfactory resistance to assumed extreme liquidity outflows.

Chart 26
Liquid assets structure
in millions of Denars



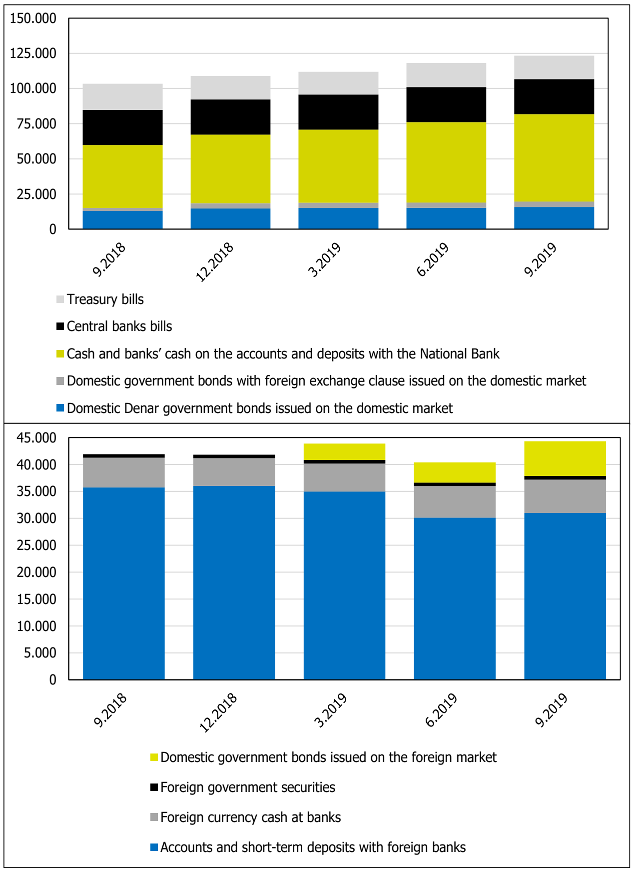
Source: National bank, based on data submitted by banks.

2.1. Dynamics and composition of liquid assets

At the end of the third quarter of 2019, liquid assets[37] of the banking system amounted to Denar 167,637 million registering a quarterly growth (of Denar 9.114 million) for the eighth consecutive quarter. Their quarterly growth rate accelerated and as of 30 September 2019 is higher by 3.9 percentage points compared to 30 June 2019. At the same time, liquid assets increased on annual basis, amounting to Denar 22,435 million or 15.5%. In the structure of liquid assets, the increased cash and assets of the banks with the National bank had the largest share in the quarterly growth, which almost entirely contributed to the growth of liquid assets on an annual basis. The increased placements of banks in domestic long-term securities, primarily investments in Macedonian Eurobonds issued on foreign markets (amid decline in banks' placements in treasury bills) made the largest contribution to the liquid

[37]Liquid assets include: 1) cash assets and claims from 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 the Republic of North Macedonia and by foreign governments. For the purposes of analyzing the liquidity risk, the assets and the liabilities in denars with foreign exchange clause are considered denar assets and liabilities.

Chart 27
Structure of denar (above) and foreign currency (below) liquid assets
in millions of Denars



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

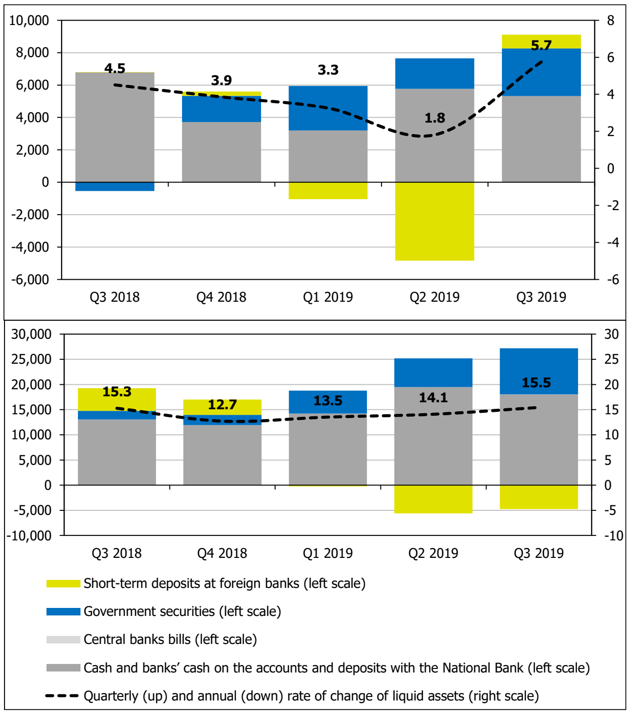
assets growth. Other components of banks' liquid assets increased to a lesser extent (short-term foreign currency assets in foreign banks) i.e. remained the same (investments in CB bills).

Banks' cash and assets with the National Bank (including CB bills) continue to dominate in the banks' liquid assets structure, with a share of 55.6% at the end of the third quarter of 2019. The main driver of the quarterly increase of total cash and banks' assets placed with the National Bank in the third quarter (by Denar 5,326 million or 6.1%) was the growth of assets in the denar accounts with the National Bank (by Denar 18,665 million) amid slight increase of banks' placements in deposit facility with the National Bank with a maturity of seven years and more significant decline of banks' placements in deposit facility with the National Bank with overnight maturity[38] (by Denar 13,325 million). Banks' investments in CB bills is almost unchanged for several consecutive quarters[39].

[38] Pursuant 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), banks may place overnight deposits with the National Bank each working day and seven-day deposits once a week. These deposits are placed without any possibility for early withdrawal, in part or in full. The interest rates of these deposits in the third quarter of 2019 were unchanged (since the last change in March 2018) and amounted to 0.15% for overnight deposits and 0.30% for seven-day deposits.

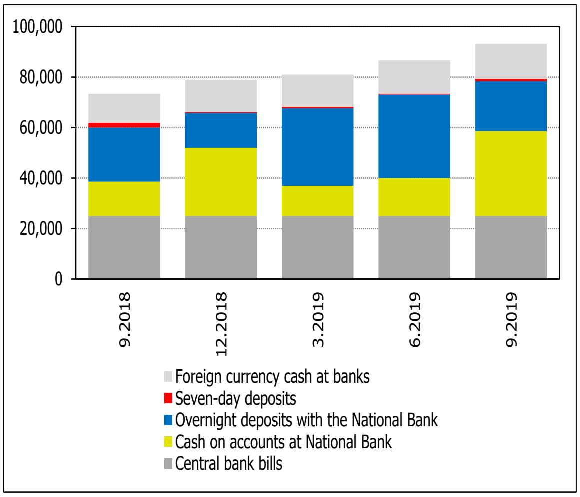
[39] CB bills auctions continued to be conducted through a limited amount offer (which was maintained at the level of Denar 25,000 million) and fixed interest rate, which at the third quarter of 2019 remained unchanged (since the last change in March 2019) and amounted to 2.25%.

Chart 28
Quarterly (above) and annual (below) change of liquid assets, by individual component
in millions of denars and in %



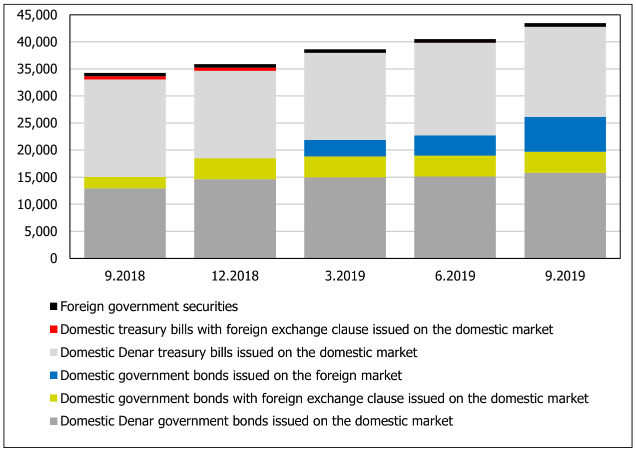
Source: National Bank, based on data submitted by banks.

Chart 29
Banks' cash assets and claims from the National Bank, by instrument
in millions of Denars



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

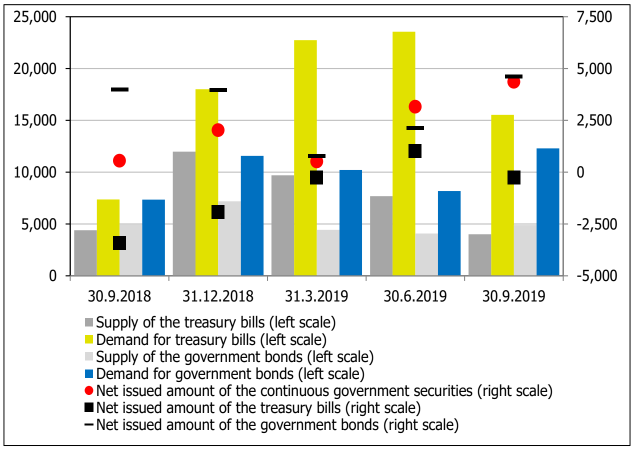
Chart 31
Banks' investments in government securities
in millions of Denars



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

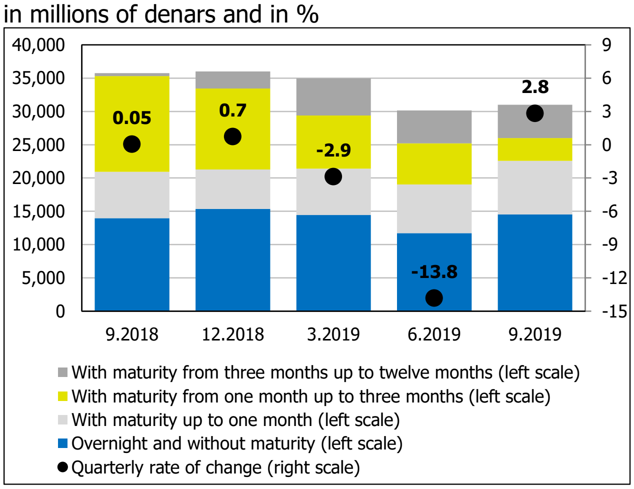
Investments in government securities is a significant option for banks in the operational management of their liquidity position. The growth of banks' investments in government securities in the third quarter of the year (of Denar 2,939 million of 7.3%), was almost entirely conditioned by investments in Macedonian Eurobonds issued on the foreign markets, which increased by Denar 2,698 million and in the banks' balance sheets, on 30 September 2019, they amount to Denar 6,455 million. Thus, their share in the total placements in government securities rose to 14.9%, on 30 September 2019 (from 9.3% on 30 June 2019). On the other hand, the growth of banks' investments in Denar government bonds, as well as government bonds with foreign exchange clause (issued on the domestic market) was much lower (by 4.5% and 0.9%, respectively), while placements in foreign government securities (bonds) remained almost the same and had a mods share of only 1.6% in the total government securities portfolio of the banks. Banks' investments in treasury bills

Chart 32
Net issued amount and supply of government securities on the domestic market of continuous securities
in millions of Denars



Source: Ministry of Finance and the National Bank.

Chart 33
Accounts and short-term deposits with foreign banks, structure and growth
in millions of denars and in %



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

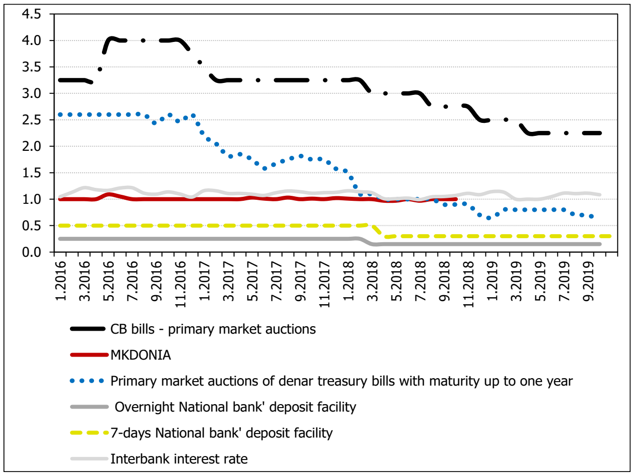
registered a quarterly decline (of Denar 475 million or 2.5%). In the third quarter of 2019, the downward trend of banks' share in the primary government securities market continued, where the total net issued amount[40] of government securities increased by Denar 4,356.8 million.

Short-term assets placed in foreign banks continue to represent the main part of the foreign currency component of banks' liquid assets (69.9%)[41]. With a quarterly growth of Denar 849 million or 2.8%, these assets remained at a stable level (share of 18.5% in the total liquid assets), which enables their use for both operational purposes as well as the needs for liquidity and credit risk management. Most short-term assets in foreign banks are placed in the corresponding accounts, and on a quarterly basis, the assets in these accounts register an increase.

One of the key motives of the banks for directing their liquid assets into financial instruments is the yield offered by individual instruments, which primarily depends on the movements of the basic interest rates. In the third quarter of 2019, amid unchanged basic interest rate of the National Bank, the interbank interest rate on the deposit market remained stable, nor any changes were registered in the indicative interest rates for interbank deposit trading (SKIBOR[42]). The interbank interest rate on all

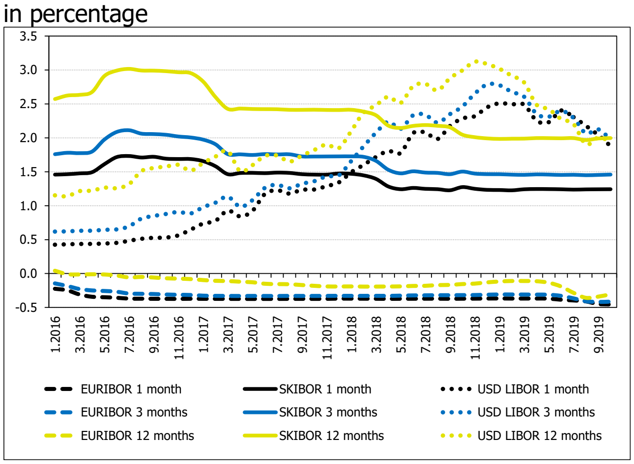
[40]The net issued amount of government securities is obtained as a difference between the amount realized on auctions of government securities for a specific time period and the amount of government securities that mature in the same time period.
[41]The FX liquid assets include the short-term deposits in foreign banks, including funds on the correspondent accounts, investments in foreign government securities and domestic government Eurobonds issued on the foreign markets, foreign currency cash, foreign currency accounts in the National Bank and placements in foreign currency deposits in the National Bank.
[42]SKIBOR (Skopje Interbank Offered Rate) is an interest rate benchmark on the Denar money market and represents an interbank interest rate for which one reference bank is ready to sell Denar liquidity to another reference bank. Pursuant to the Rules on the selection and liabilities of the reference banks which set quotes on the interest rates for calculating SKIBOR and for the process of calculating SKIBOR, adopted on 22 August 2018 by the Macedonian Banking Association, which started to be applied on 1 October 2018, the reference banks are obligated to quote interest rates for: one week, one month, three months, six months and twelve months.

Chart 34
Movement of domestic interest rates
in %



Source: National Bank

Chart 35
Movement of interest rates on the interbank markets SKIBOR, EURIBOR, LIBOR for the US dollar
in percentage

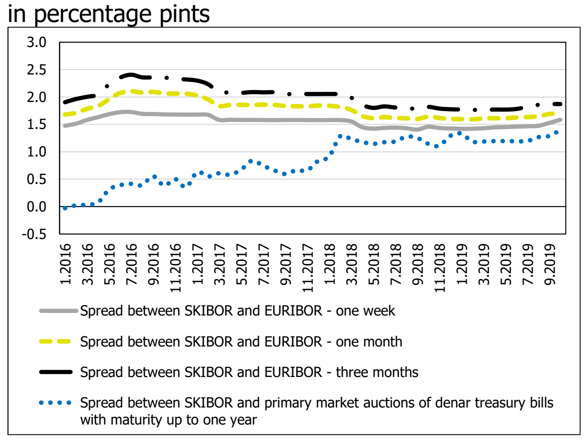


Source: The National Bank and the website of the European Money Market Institute (EMMI) and the website of the Federal Reserves Bank of St. Louis (so called FRED) for LIBOR for US dollars.

transactions (MBKS[43]) averaged 1.1% for the quarter and remained low and stable.

Contrary to the stable movements in the domestic interest rates, the monetary policy in developed countries was stimulating. Namely, in the third quarter of 2019, the ECB eased the monetary policy in the last meeting in September, by reducing the interest rate on overnight deposits that banks may place in the Eurosystem, from -0.4% to -0.5%[44]. Thus, the negative values of the interest rates on the interbank markets in the euro area (EURIBOR) deepened, and to some extent

Chart 30
Movement of the spread between SKIBOR in relation to EURIBOR, for selected maturities
in percentage pints

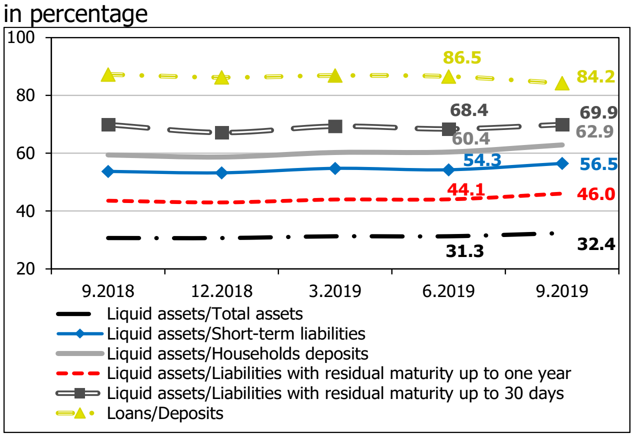


Source: The National Bank and the website of the European Money Market Institute (EMMI) and the website of the Federal Reserves Bank of St. Louis (so called FRED) for LIBOR for US dollars.

downward movement was registered at the level of international interbank rates in US dollars (LIBOR). Namely, after the long period of interest rate normalization, FED for the first time in July 2019 adopted a decision for reducing the target interest rate (by 25 basis points), and reduced it by the same amount at the meeting in September 2019, thus reducing it from 1.75% to 2%[45].

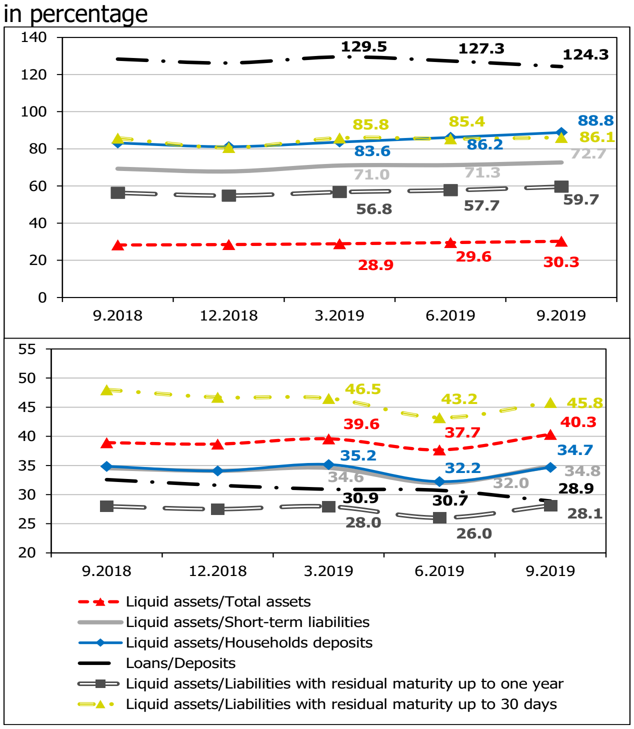
[43]MBKS is an interbank interest rate for trading deposits on the interbank market.
[44] Other basic interest rates of the ECB (interest rate on the main refinancing operations and overnight loans) remained at the same level (from 0% to 0.25%, respectively).
[45]The target interest rate was cut for an additional 0.25 percentage points at the meeting held in October 2019.

Chart 36
Banking system liquidity indicators
in percentage



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

Chart 37
Banking system liquidity indicators by currency - denar (above) and foreign currency (below)
in percentage



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

2.2. Liquidity indicators

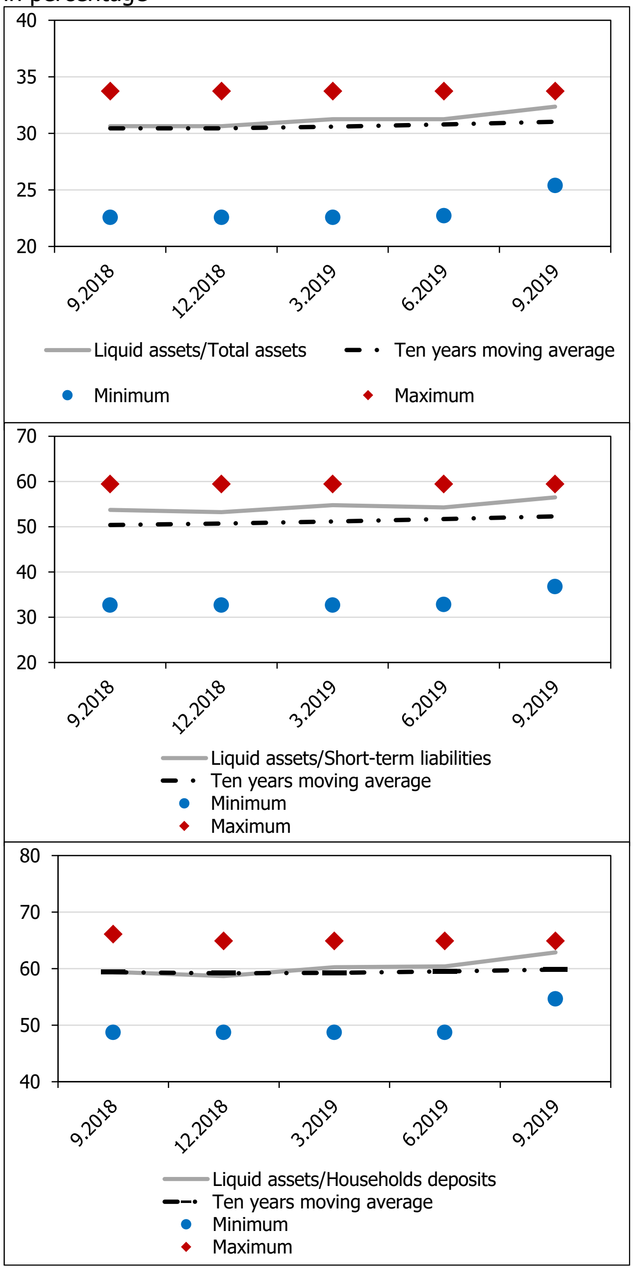
In the third quarter of 2019, the growth of banks' liquid assets contributed to the improvement of all their liquidity indicators[46]. The improvement of the liquidity indicators of the banking system was moderate, but provided a slightly higher value than their ten-year moving average - share of liquid assets in the total assets of the banks remained at the level of nearly one third, the coverage of short-term liabilities is slightly over one half, while the coverage of household deposits with liquid assets remained at the level of about 60%[47]. The ratio between loans and deposits at the level of the banking system is still below 100% and indicates acceptable levels of liquidity risk and stable liquidity management by banks.

In terms of currency characteristics of liquid assets and liabilities, in the third quarter of 2019, denar liquidity indicators[48] had a slight increase compared to foreign currency liquidity indicators, given the higher absolute quarterly growth of denar liquid assets. At the same time, denar liquidity indicators continue to remain at a higher level compared to foreign currency liquidity, due to the higher structural share of denar liquid assets of the banks.

The regulatory rates for liquidity of the banking system, shown as ratio between assets and liabilities maturing in the next 30 to 180 days and in the third quarter of 2019

[46]Resident interbank assets and liabilities are not taken into account when calculating the liquidity indicators of the banking system.
[47]By individual bank, as of 30 September 2019, the share of liquid assets in total assets is between 19.0% and 48.9%, with a median of 27.3% (September 2018: between 21.0% and 49.1%). The coverage of short-term liabilities with liquid assets is between 41.8% and 79.1%, with a median of 57.2% (September 2018: between 39.7% and 89.5%), while the coverage of residual maturity until 30 days between 48.7% and 120.9%, with a median of 69.5% (September 2018: between 45.2% and 139.5%). "Development Bank of North Macedonia" AD Skopje is excluded from this analysis.
[48]Receivables and liabilities with FX clause are considered as denar receivables and liabilities because of their cash flow in denars.

Chart 38
Liquid assets/total assets (above), liquid assets/short-term liabilities (center) and liquid assets/household deposits (below)
in percentage



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

were above the prescribed minimum of 1, thus confirming the satisfactory liquidity volume available to the Macedonian banking system, which enables banks to perform their obligations smoothly.

2.3. Maturity structure of assets and liabilities

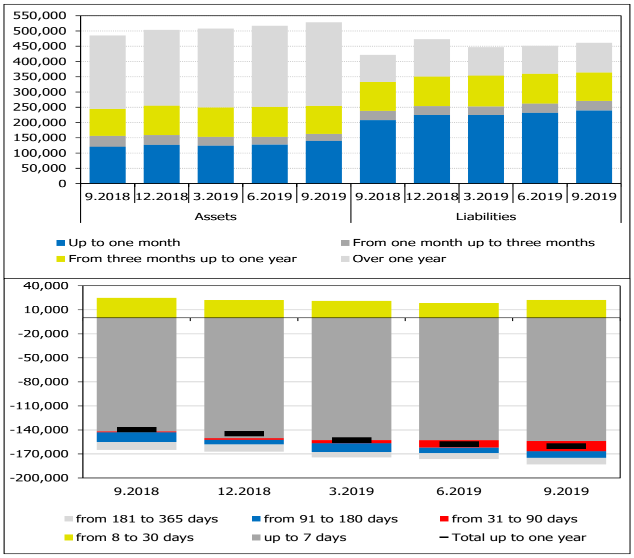
In the third quarter of 2019, the changes in the structure of assets and liabilities according to their residual maturity contributes to the increase of the shares of assets and liabilities with a shorter contractual maturity (up to one month), which corresponded with the growth of cash assets at the National Bank (on the assets side) i.e. the stronger depositors' tendency to keep deposits at shorter maturities (on the liabilities side)[49].

The maturity discrepancy between banks' assets and liabilities is significant and further deepened in all maturity segments in the third quarter 2019. Thus, the greatest discrepancy between banks' assets and liabilities according to their contractual residual maturity still exists in the maturity segment up to seven days, which usually results from including banks' sight liabilities and without fixed maturity (including transaction accounts) in this maturity segment. Usually, a positive gab in the contractual residual maturity of assets and liabilities is observed only in the maturity segment from 8 days to one month, mainly due to the fact that banks' investments in CB bills with the National Bank are classified in this maturity segment.

According to banks' expectations, the cumulative gap

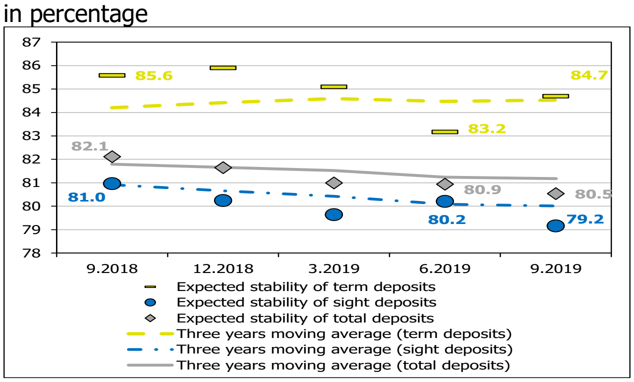
[49]In the third quarter of 2019, the growth of deposit potential of the banking system was almost entirely determined by the growth of denar sight deposits.

Chart 39
Composition of banks' assets and liabilities by their contractual residual maturity (above) and the gap between assets and liabilities, with contractual residual maturity up to one year (below).
in % and in millions of Denars



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

Chart 40
Expected stability of deposits with residual maturity up to three months by banks
in percentage



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

between assets and liabilities in all maturity segments is positive, which points to the conclusion that banks still expect to maintain deposit stability as the main source of financing their activities (more details in the annexes of this report). Despite the certain reduction, at the end of the third quarter 2019, banks expect that total deposits will have high stability (80.5%) i.e. 84.7% of the term deposits with residual maturity up to three months will remain in banks, while the percentage of the expected stability for term deposits is slightly lower (79.2%).

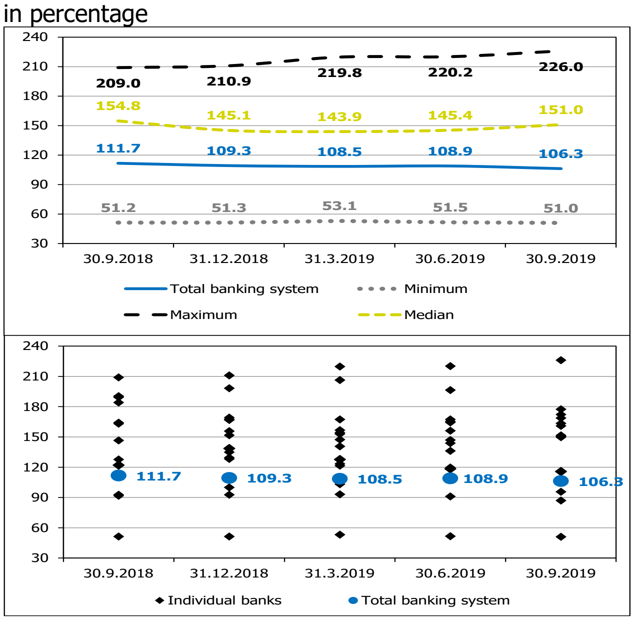
2.4. Stress-simulations for liquidity shocks

The results from simulations for liquidity shocks conducted as of 30 September 2019 indicate a stable liquidity position of the Macedonian banking system. The resilience of the Macedonian banking system to liquidity shocks is confirmed through all individual simulations for liquidity shocks and full utilization (106.3% on 30 September 2019) of the liquid assets would occur only during significantly extreme simulation for liquidity shock, which includes combined outflows[50] of funds from banks on several basis. Given the extreme of the assumption, for the purposes of this simulation, the usual scope of liquid assets is extended to other financial instruments[51] owned by banks, for which it is estimated that banks quickly and easily will collect or convert them into cash. In such a

[50]The simulation assumes outflow of: deposits of the twenty largest depositors, 20% of household deposits, liabilities to parent entities (liabilities on the basis of subordinated instruments and hybrid capital instruments are excluded from the simulation as according to the regulations for calculating capital adequacy their early repayment is limited), 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 credits, irrevocable credit lines and unused limits based on credit cards and approved overdrafts on transaction accounts) in balance sheet claims. The simulations of liquidity shocks exclude "The Development Bank of North Macedonia" AD Skopje.

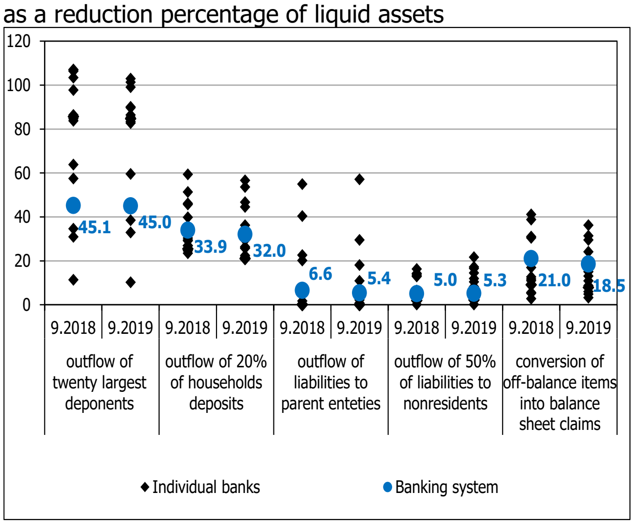
[51]In addition to the financial instruments that make up the liquid assets, the following financial instruments are also added: assets in the reserve guarantee fund at KIBS, long-term deposits in foreign banks, instruments on the money market issued by foreign non-government issuers, loans with residue maturity of up to 30 days, including the effect from the reduction of the compulsory reserve for the foreign currency liabilities of the banks which is allocated in foreign currency due to the simulated outflow of the foreign currency deposits of the households.

Chart 41
Reduction of liquid assets by simulation of combined liquidity shocks (by all shocks), overall banking system (above) and individual bank (below)
in percentage



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

Chart 42
Contribution of individual shocks in the reduction of liquid assets amid the simulation for combined liquidity shocks, by bank
as a reduction percentage of liquid assets



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

case, the banking system would have sufficient liquid assets and a certain amount of liquid assets would remain at its disposal.

Amid applying individual simulations for liquidity shock, the high level of liquid assets available to Macedonian banks enables the settlement of all assumed extreme liquidity outflows. The largest decrease of liquid assets occurs during the outflow of the deposits of twenty largest depositors, but the significance of this simulations for individual banks is different, given the differences in the degree of the concentration of deposits. Contrary to that, in the simulation for the reputation risk materialization and loss of households' trust in banks represented by the outflow of 20% of household deposits, there is a significantly higher similarity in the results for individual banks, which confirms the importance of deposits for financing banks' activities. Hence, the sustainability of banks' liquidity positions, as well as the potential growth of their activities are directly dependent on the developments and performances of the banks on the deposits market and the maintenance of domestic depositors in the Macedonian banks.

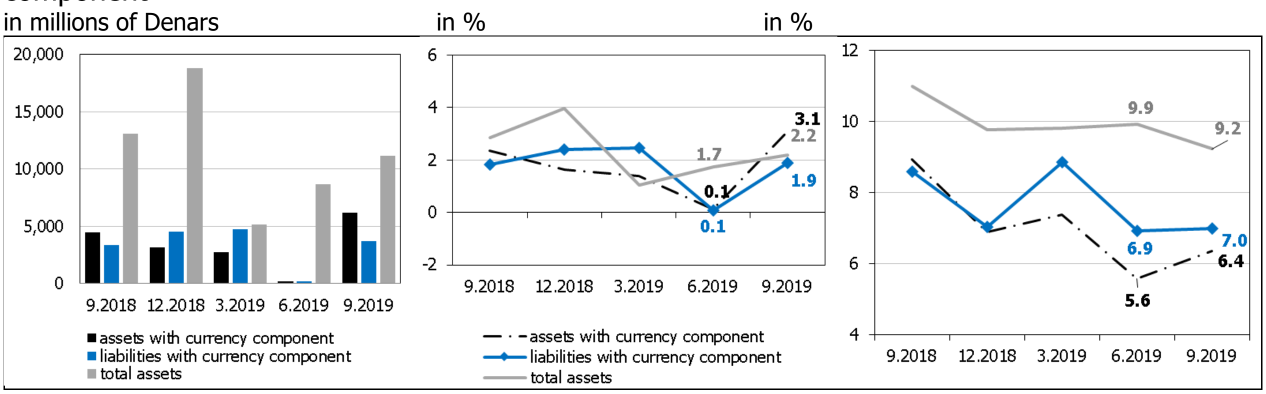
In case of assumed conversion of certain off-balance sheet liabilities of bans into balance sheet claims[52], banks would spend about 20% of their liquid assets, which, although less compared to deposits outflow simulations[53], can still be considered significant. The small share towards non-residents, as well as towards parent enterprises in the structure of total sources of financing of the banks causes a modest impact on shocks associated with them, on the overall result of this simulation.

[52]Outflow of funds is assumed as a result of converting certain off-balance sheet liabilities of 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.
[53]In the simulation of deposits' outflow from 20 largest depositor, the liquid assets of the banking system are reduced by 45%, while amid assumed outflow of 20% of household deposits, liquid assets are reduced by 32%.

3. Currency risk

In the third quarter of 2019, banks' direct and indirect exposure to currency risk increased, but it is still relatively low. The increased direct exposure to currency risk is perceived through the increased gap ratio between assets and liabilities with currency component and banks' own funds, including through the increased ratio of the open currency position and own funds Also, the growth of the share of loans with currency component in the total credit portfolio of the banking system is an indicator of the increased banks' exposure to indirect currency risk. As of 30 September 2019, all the banks were complied with the prescribed limit of 30% for the ratio of aggregate currency position and own funds. The euro is the most common currency n the structure of banks' balance sheets, which amid de facto fixed nominal exchange rate of denars against the euro, contributes to maintaining low level of direct and indirect exposure of banks to currency risk.

Chart 43
Quarterly (left and center) and annual (right) change of assets and liabilities with currency component*

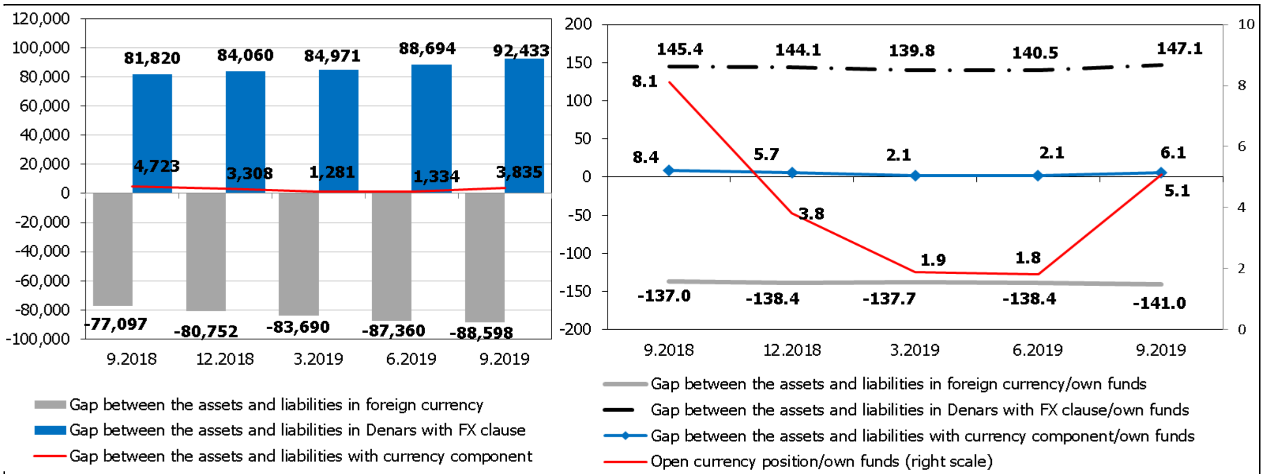


Source: National Bank i.e. the report on the open currency position based on the data submitted by banks.
*The assets are on net basis, reduced for the impairment of claims that are classified in the risk categories "C", "D" and "E", pursuant to the Decision on managing currency risk. Development Bank of North Macedonia is not included in the analysis.

As of 30 September 2019, the positive gap between assets and liabilities with currency clause increased by Denar 2,501 million, resulting from the higher growth of assets with currency component (by Denar 6,214 million)[54], compared to the growth of liabilities with currency clause (by Denar 3,713 million)[55].

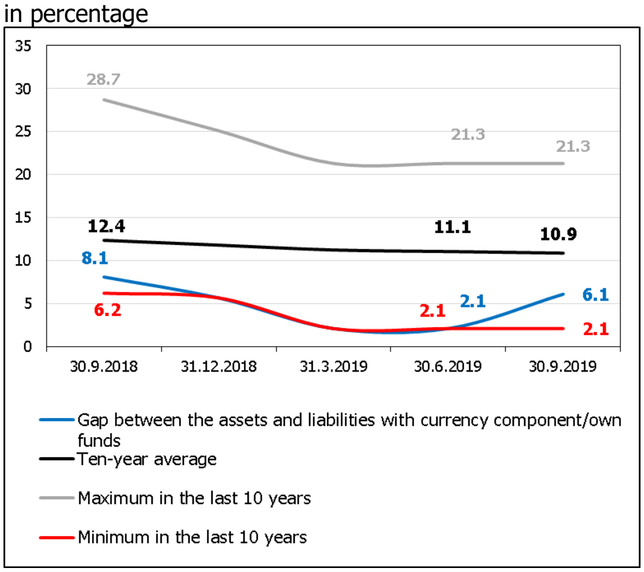
The growth of the gap between assets and liabilities with currency clause, amid simultaneous decrease of banks' own funds (by Denar 313 million), conditioned the growth of its share in own funds, by 4 percentage points (from 2.1% to 5.1%). Despite the decrease in the gap between assets and liabilities with currency clause and own funds, its hare is below the calculated ten-year average of this indicator.

Chart 44
The structure of the gap between assets and liabilities with currency clause (left) and share of gap between assets and liabilities with currency clause in own funds (right)
in millions of Denars in %



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

Chart 45
Ten-year average, minimum and maximum of the gap between assets and liabilities with currency clause and own funds
in percentage

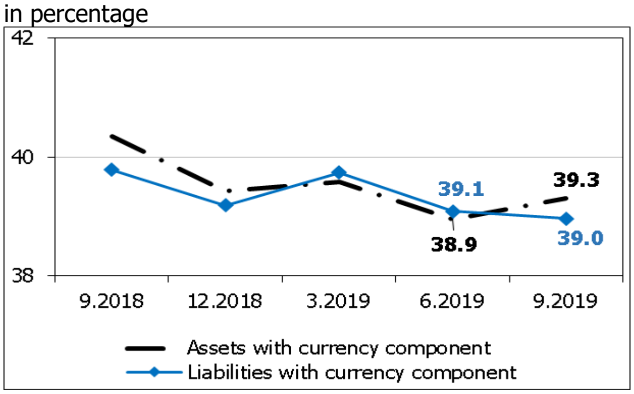


Source: National Bank, based on data submitted by banks.

[54]The growth of assets with currency clause arises from the increased banks' placements in denar loans with currency clause (Denar 2,898 million) and in domestic government Eurobonds issued on foreign markets (Denar 2,698 million), as well as from the growth of assets on the current accounts with foreign currency in foreign banks (Denar 2,129 million) and assets in foreign currency treasury funds (Denar 734 million). Contrary to this, foreign currency loans (Denar 1,866 million) and foreign currency deposits (Denar 950 million) register a decrease. Source: ODP forms that banks fill out and submit to the NBRNM.

[55]The growth of liabilities with currency component is due to the growth of liabilities based on foreign currency loans (Denar 1,915 million), foreign currency current accounts of natural persons (Denar 1,625 million) and private non-financial companies (Denar 1,041 million), as well as the growth of foreign currency deposits of natural person (Denar 835 million). Contrary to this, deposits of non-residents (Denar 990 million) and non-financial institutions (Denar 900 million) register a decrease. Source: ODP forms that banks fill out and submit to the NBRNM.

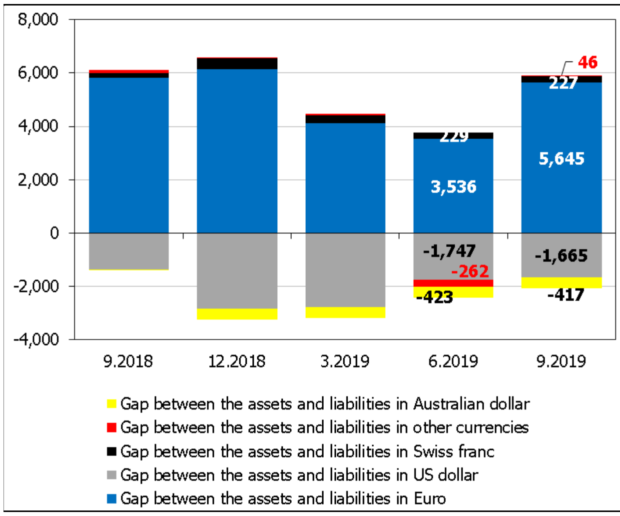
Chart 46
Share of assets and liabilities with currency clause* and banks' total assets
in percentage

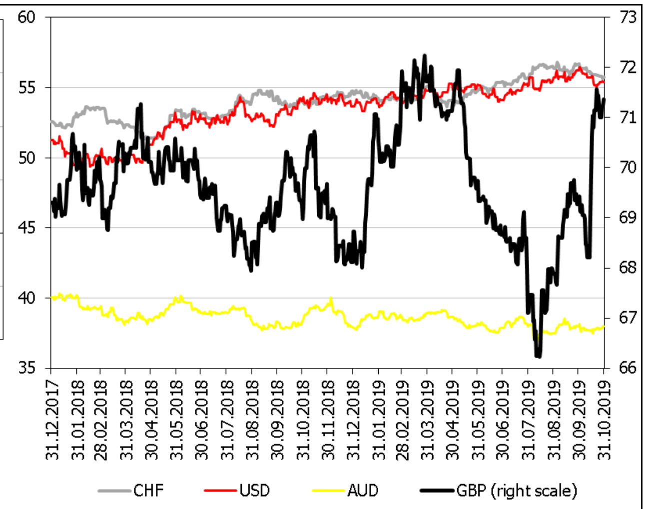


Source: National Bank, based on data submitted by banks.
*Within assets, loans are taken on net basis i.e. reduced by the amount of impairment. DBNM AD Skopje is excluded.

Shares of assets and liabilities with currency clause in total assets i.e. liabilities mainly show a downward trend. However, in the third quarter of 2019, assets with currency component registered faster growth compared to the growth in Denar assets, which conditioned a certain increase in the share of assets with currency components in total assets Contrary to this, the share of liabilities with currency component in total liabilities decreased on a quarterly basis, given the lower growth of liabilities with currency component, compared to the growth of denar liabilities

Chart 47
Dynamics and structure of the gap between assets and liabilities with currency component, by currency (left) and movement of exchange rate against the US dollar, Swiss franc, British pound and Australian dollar (right)





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

Analyzed by currency, the euro, almost entirely contributed to the growth of the gap between assets and liabilities with currency clause.[56] Amid applying the Strategy for maintaining fixed exchange rate of the denar against the euro and its largest share in total assets and liabilities with currency clause, the possibility of currency risk materialization is low.

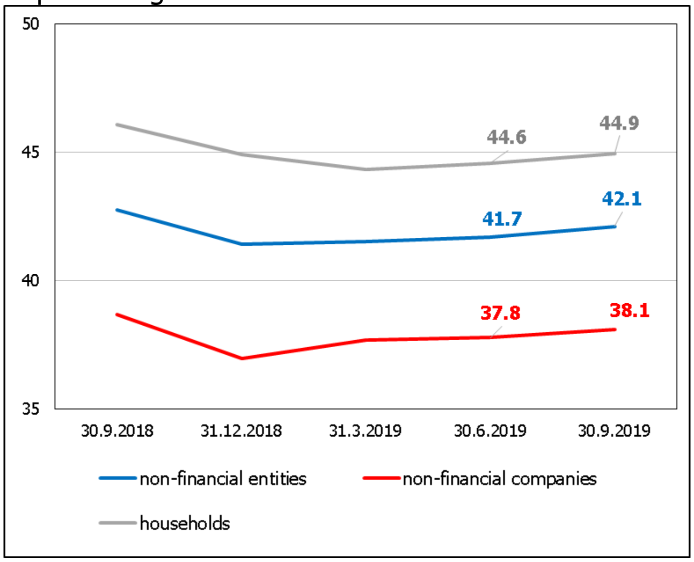
Table 3
Currency structure of assets and liabilities with currency component
in percentage

Currency	30.6.2019		30.9.2019	
	Assets	Liabilities	Assets	Liabilities
Euro	89.1	87.9	89.1	88.0
US dollar	6.7	7.7	6.9	7.8
Swiss franc	1.7	1.6	1.6	1.5
Australian Dollar	0.9	1.1	0.8	1.0
British pound	0.5	0.7	0.6	0.7
Other	1.0	1.0	1.0	1.0
Total	**100.0**	**100.0**	**100.0**	**100.0**

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

Also, maintaining a stable denar exchange rate against the euro is a key factor for maintaining a low possibility for indirect currency risk materialization. This quarter, the growth of denar loans with currency clause (which had a significant contribution for the growth of assets with currency component), contributed to the growth of the share of loans with currency component in total loans, which increases banks' exposure to this risk.

Chart 48
Share of loans with currency component in total loans
in percentage



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

Table 4
Breakdown of banks based on the share of open currency position by individual currency and aggregate foreign currency position in own funds

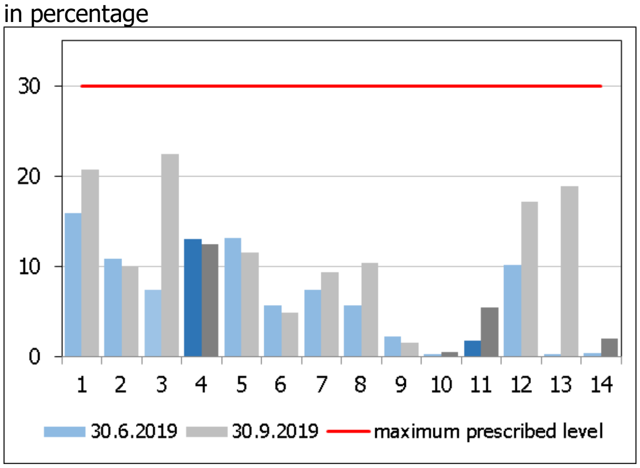
Items	Number of banks										
	Open currency position by currency / own funds										Aggregate currency position / own funds
	Euro		US Dollar		Swiss franc		Australian Dollar		Other		
	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	
under 5%	2	2	8	6	9	4	7	2	10	3	4
from 5% to 10%	3	1							1		3
from 10% to 20%	4	1									5
from 20% to 30%	1										2
over 30%											

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

On 30 September 2019, all banks were complied with the prescribed limit of 30% for the ratio of the aggregate foreign currency position and own funds. Ten banks have a long aggregate foreign currency position, as opposed to four banks that have a short

[56]The widening of the gap in euros arises from the higher growth of assets in euros (Denar 5,404 million), as opposed to the growth of liabilities in euros (Denar 3,395 million).

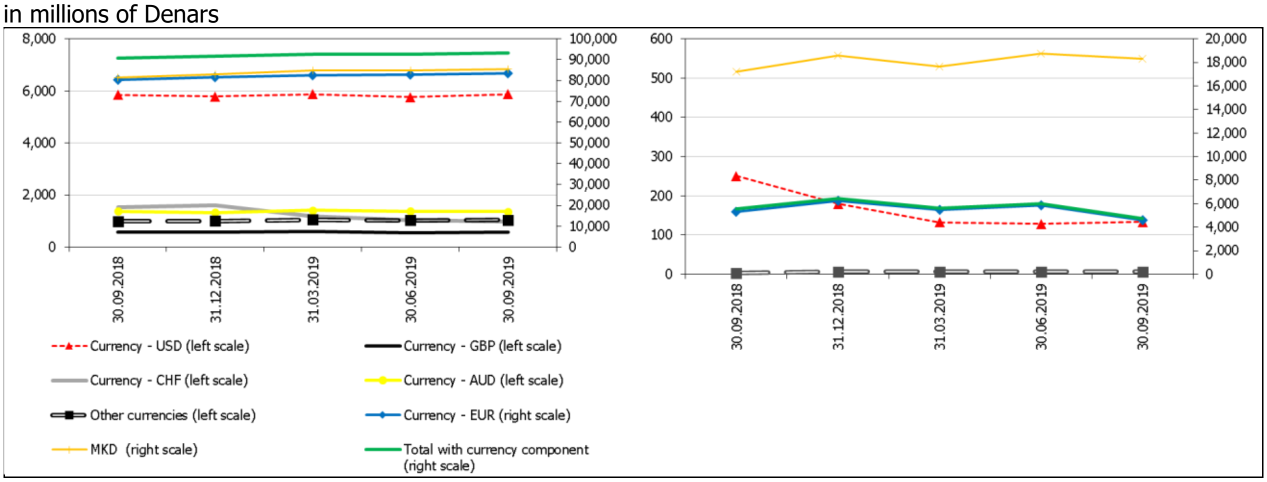
Chart 49
Ratio of aggregate foreign currency position and own funds, by individual bank*
in percentage



Source: National Bank, based on data submitted by banks.
The bars with darker shades refer to banks which have a short foreign currency position, but shown in absolute value.

foreign currency position. The highest foreign currency position was long and amounted to 22.4% compared to banks' own funds, while the lower was short and its ratio with banks' own funds amounted to 0.5%.

Chart 50
Deposits of natural persons (left) and non-financial companies (right), by currency
in millions of Denars



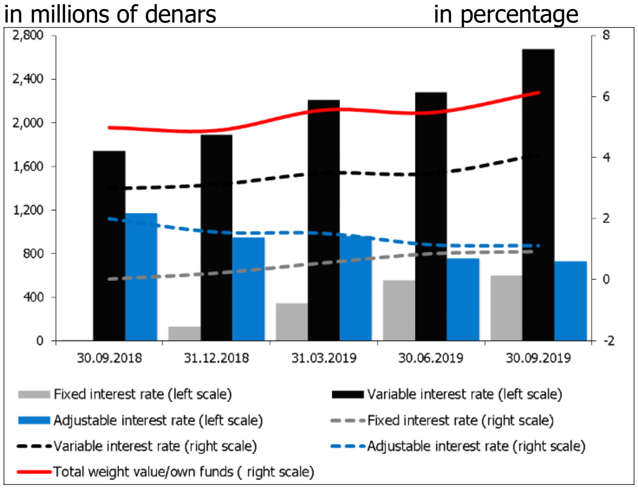
Source: National Bank, based on data submitted by banks.

4. Interest rate risk in the banking book

In the third quarter of 2019, the banking system exposure to interest rate risk in the banking book increased due to the accelerated growth of weighted value of the banking book compared to the previous quarter, which contributed to its increased share in own funds. The increase of the weighted value of the banking book arises from the widening of (non-weighted) gap between assets and liabilities positions with floating interest rate and the changes in the structure of the gap in positions with fixed interest rate according to maturity. At an aggregate level, the banking system is exposed to the risk of lower interest rates given the fact that the total gap between interest-sensitive assets and liabilities is positive. However, the drastic reduction of the aggregate gap between assets and liabilities and the passive interest-sensitive items up to 1 month prolonged the time period in which the potential interest rate changes would condition a more significant materialization of the banking system exposure to interest rate risk. The indirect exposure to interest rate risk, which arises from the presence of loans with adjustable and floating interest rates continues to be significant.

Chart 51
Total weighted value of the banking book* according to the interest rate type, in absolute value (left scale) and compared to own assets (right scale)

in millions of denars in percentage

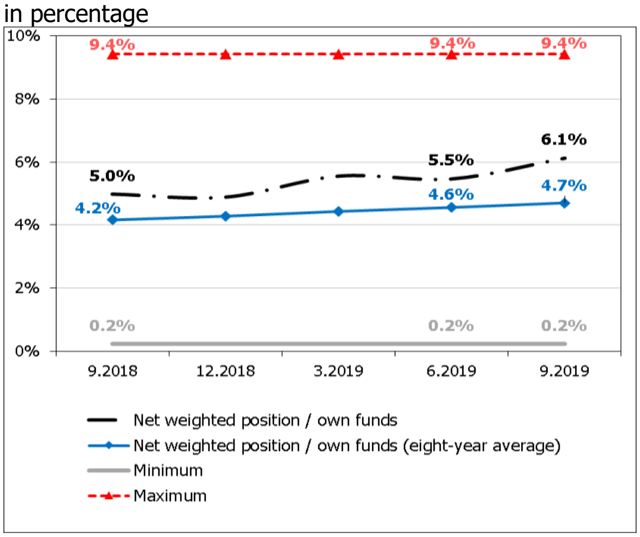


Source: National Bank, based on data submitted by banks.
*The total weighted value of the banking book indicates the potential loss of the economic value of this book, amid assumed unfavorable shock of ±2 percentage points.

The total weighted value of the banking book registers a high quarterly growth of 11.6% or by Denar 415 million, which conditioned an increase of the ratio between the weighted value of the banking book and own funds, by 0.7 percentage points, up to the level of 6.1% on 30 September 2019. By individual bank, this ratio moves in an interval from 0.4% to 9.8%, which is far below the level of 20%[57]. By interest rate type, as in the previous quarter, the weighted values of the portfolios with fixed interest rate increase (by Denar 42 million or 7.6%) and floating interest rate (by Denar 397 million or 17.4%). Contrary to this, the weighted values of the portfolio with adjustable interest rate registers a quarterly decline by Denar 24 million or 3.1%. The widening of the total gap between assets and liabilities with floating interest rate mostly contributed to the growth of the net weighted position for this interest rate type. On the other hand, the quarterly growth of the weighted value of the portfolio with fixed interest rate does not result from the widening of the total gap between assets and liabilities

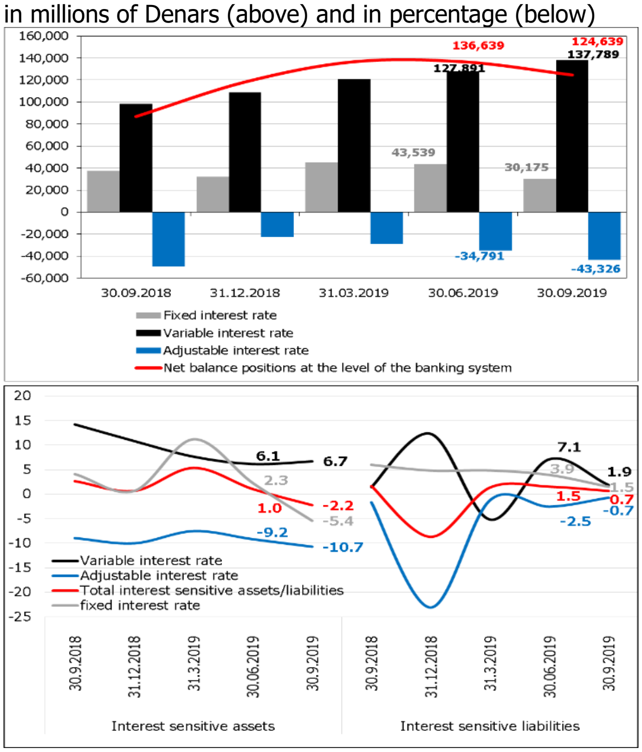
[57]According to the regulation, in cases when the gap between total weighted value in the banking book and banks' own funds exceeds 20%, the bank is obligated to purpose measures to reduce this ratio, and the National Bank may order the allocation of an appropriate amount of capital to cover the interest rate risk in the banking book.

Chart 52
Net weighted position / own funds
in percentage



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

Chart 53
Interest-sensitive assets and liabilities according to interest rate type, gap (above) and quarterly change (below)
in millions of Denars (above) and in percentage (below)



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

with this interest rate type (on the contrary, this gap decreases, on a quarterly basis), but is a consequence of the change in the gap structure, analyzed by maturity (more precisely, redistribution in the gap structure, from shorter to longer maturity blocks). Amid quarterly widening of the negative gap between assets and liabilities with adjustable interest rate, the decrease of the weighted value in the banking book with this interest rate type is also a result of the changes in the total gap structure with adjustable interest rate (more precisely, redistribution in the negative gap structure, from the positions where the time period until the next interest rate revaluation is longer to positions where the next interest rate revaluation is shorter).

The level of the ratio between the net weighted value and own funds is over the calculated average of this indicator for the past 8 years, after the data on banks' exposure to interest rate risk in the banking book are available[58].

The total gap i.e. non-weighted value between interest-sensitive assets and liabilities registered a quarterly decline of 8.8% or Denar 12,000 million. Within it, the gap between items with floating and adjustable interest rate widened, while the gap between items with fixed interest rates narrowed. The positive gap between assets and liabilities with floating interest rates registered a quarterly increase of Denar 9,898 million or 7.7%, mostly due to the growth of placements in loans with this interest rate type (by Denar 9,590 million). A similar quarterly change, but in the opposite direction (decrease of Denar 9,412 million) register placements in loans with adjustable interest rates, which mostly conditioned the widening of the negative gap between assets and liabilities with adjustable

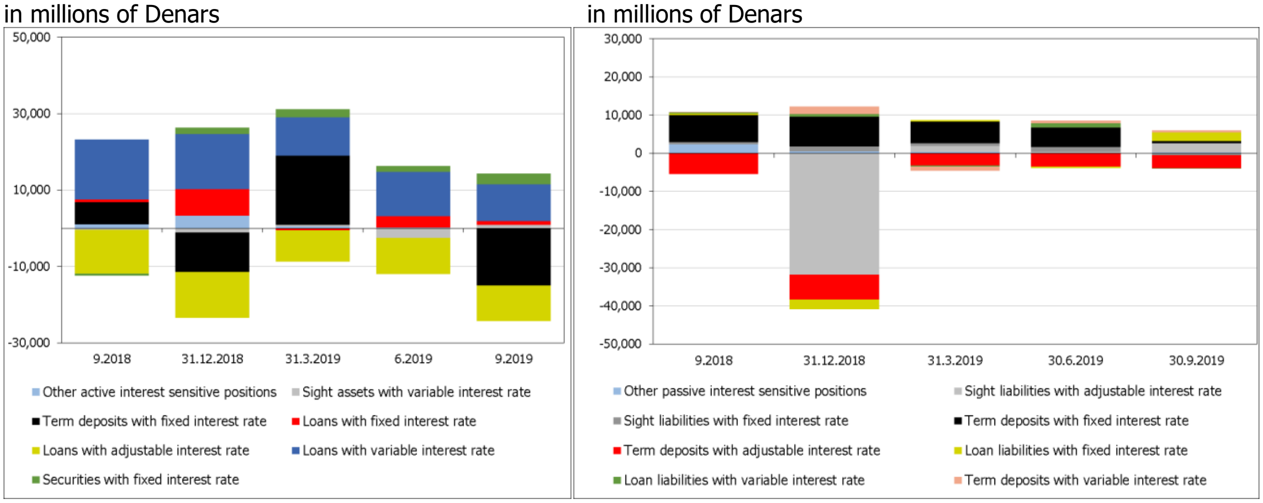
[58]Decision on managing the interest rate risk in the banking book (Official Gazette of the Republic of Macedonia No. 163/08) from 15 December 2008, started to be applied from 1 January 2010.

interest rate (by Denar 8,535 million or 24.5%).

Chart 54
Quarterly changes of interest-sensitive assets (left) and liabilities (right), by instrument type and interest rate type

in millions of Denars

in millions of Denars

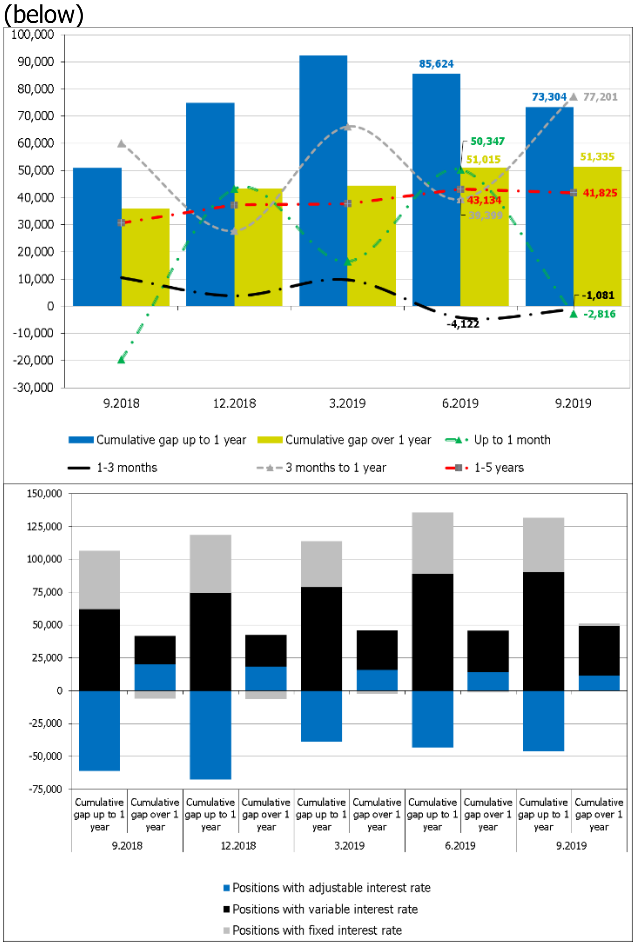


Source: National Bank, based on data submitted by banks.

Contrary to such movements, the positive gap in items with fixed interest rate registered a significant narrowing (by Denar 13,364 million or 30.7%), as a result of the reduced placements in term deposits with this interest rate type by Denar 14,967 million (refers to deposits with the NBRNM), amid simultaneous growth of interest-sensitive liabilities of Denar 2,415 million (mostly due to the increase of liabilities based on loans with fixed interest rate).

Analyzed by the time period until next revaluation of the interest rates level, in the third quarter of 2019 there is a decrease in the gap between assets and liabilities where the time period until the next revaluation of interest rates is up to 1 year. Such decrease is concentrated in the gap until 1 month, which decreased drastically (by Denar 53 billion) on a quarterly basis, and is relatively low as of 30 September 2019 (and amounts to Denar -2.8 billion). The narrowing of the gap up to 1 month is present in all interest rate types, but

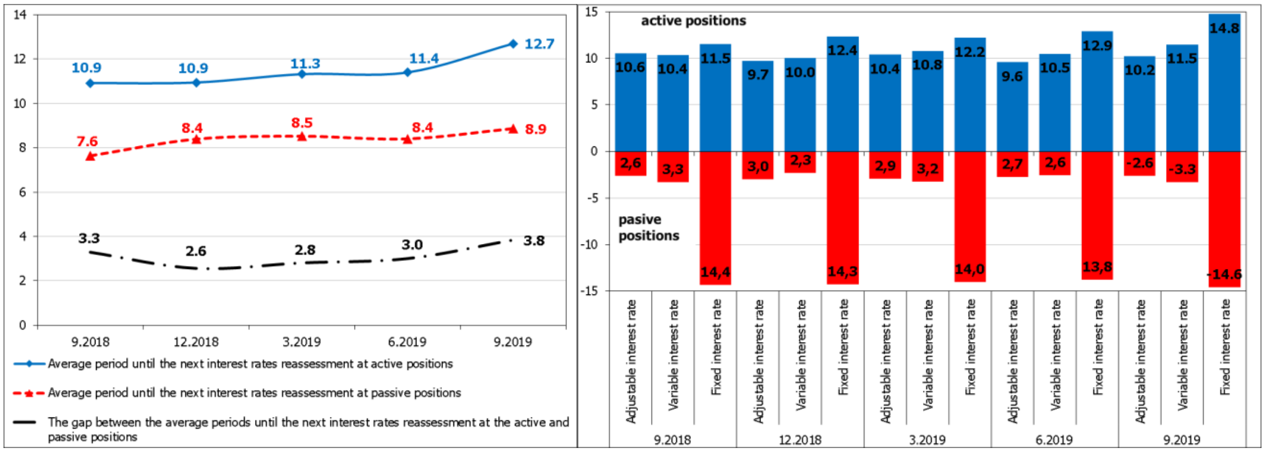
Chart 55
The gap between assets and liabilities according to the time period until the next interest rate revaluation (above) and gap structure according to interest rate type (below)
in millions of Denars (above) and in millions of Denars (below)



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

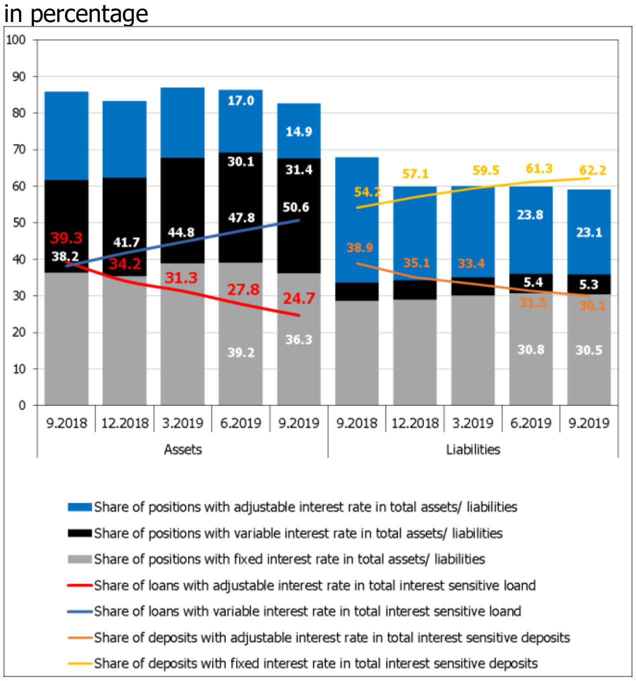
is most pronounced in items with floating interest rate and mostly arises from the transition of loan placements, from segments where the time period until the next interest rate change is up to 1 month to the segment until the time period until the next change in interest rates is between 3 and 6 months. This is a normal seasonal movement during the year, in accordance to the agreed period (frequency) of the revaluation of the reference interest rate (usually a market interest rate) to which the determination of the interest rates applicable to loans with floating interest rates is linked. In items with fixed interest rate, the decrease of the gap between assets and liabilities in the maturity block up to 1 month is mostly due to the aforementioned decline of term deposits, while in items with adjustable interest rates, the negative gap in the segment up to 1 month additionally widened due to the decline of loans with adjustable interest rates. The drastic reduction of the aggregate gap between interest-sensitive assets and liabilities up to 1 month prolonged the time period in which the potential interest rate changes would condition a significant materialization of the banking system exposure to interest rate risk. The transformation of this gap from positive to negative exposes the banking system to the risk of future interest rates increase, but the low volume of the gap minimizes the effect of such interest rates change.

Chart 56
Average period until next interest rate revaluation*, total (left) and by interest rate type (right)
in months



Source: National Bank, based on data submitted by banks.
*The average period till next interest rates revaluation is calculated as share of the amount of the assets/liabilities of each of the maturity blocks in the total interest-sensitive assets/liabilities, multiplied by the maturity of each maturity block, expressed in months. In items with fixed interest rate, the average period till next reevaluation pertains to the average residual maturity deadline.

Chart 57
Structure of assets and liabilities, by interest rate type
in percentage



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

The indirect exposure to interest rate risk which arises from the presence of loans with adjustable and floating interest rates is significant, but decreases. As of 30 September 2019, the cumulative share of these loans in total loans amounts to 75.3% (which is by 0.3 percentage points less compared to 30 June 2019), where 50.6% of total loans have a floating interest rate, while 24.7% have adjustable [59] interest rates. The significant share of floating interest rates (including adjustable interest rates), especially in loan agreements with households, emphasizes the importance of indirect credit risk for banks in case of upward change in the interest rates.

More details regarding the structure of interest-sensitive items of the banks are given in the annexes to this report.

[59]The downward trend in items with adjustable interest rates also continued in the third quarter of 2019, both in interest-sensitive assets and interest-sensitive liabilities.

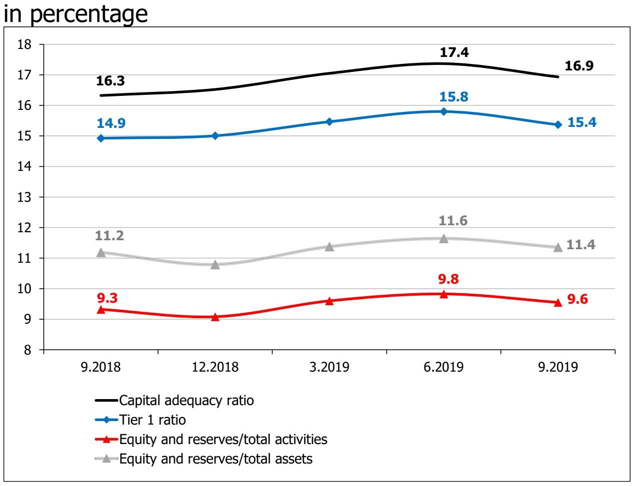
5. Insolvency risk

The solvency and capitalization of the banking system are stable and at a satisfactory level. The capital adequacy rate registered a moderate drop in the third quarter of 2019 and amounted to 16.9%, which is due to the small quarterly decline of banks' capital items amid further solid growth of activities. In the absence of new issues of shares and reinvesting the profit in banks' capital, the downward shift of own funds arises from the growth of deductible items from own funds. On an aggregate level, the banking system still has "free" capital, above the determined regulatory and supervisory minimum, whose share amounts to 10.0% of total own assets. Risk weighted assets increased as a result of credit risk and currency risk weighted assets. The results from the stress-test simulations are mostly better compared to the previous quarter.

5.1. The indicators for the solvency and capitalization of the banking system and activity risk level

In the third quarter of 2019, all the solvency and capitalization indicators of the banking system registered a decrease, which moves in the interval from 0.2 to 0.5 percentage points. On a quarterly basis, the capital adequacy ratio decreased by 0.5 percentage points, to 16.9%, which is above the calculated ten-year average of this ratio. A quarterly decrease of 0.4 percentage points was registered in both Capital Tier I ratio and Common Equity Tier I capital ratio, which as of 30 September 2019 reached 15.4% and 15.3%, respectively.[60] At the same time, the ratio between the capital and reserves and total assets i.e. total activities of the banking system decreased by 0.2 percentage points, respectively, and as of 30 September 2019 reached 11.4% and 9.6%, respectively.

Chart 58
Solvency indicators
in percentage

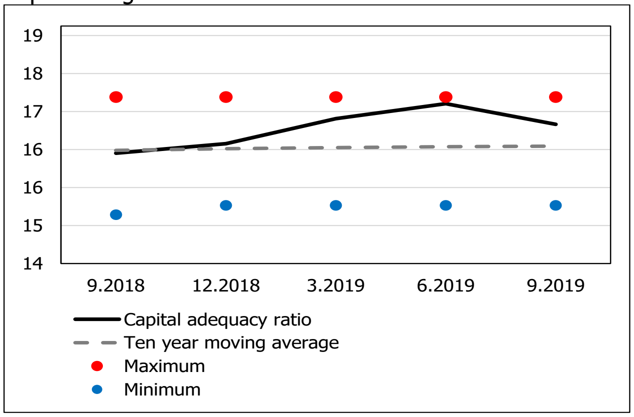


Source: National Bank, based on data submitted by banks.

The insignificant decrease of the solvency indicators, in the third quarter of

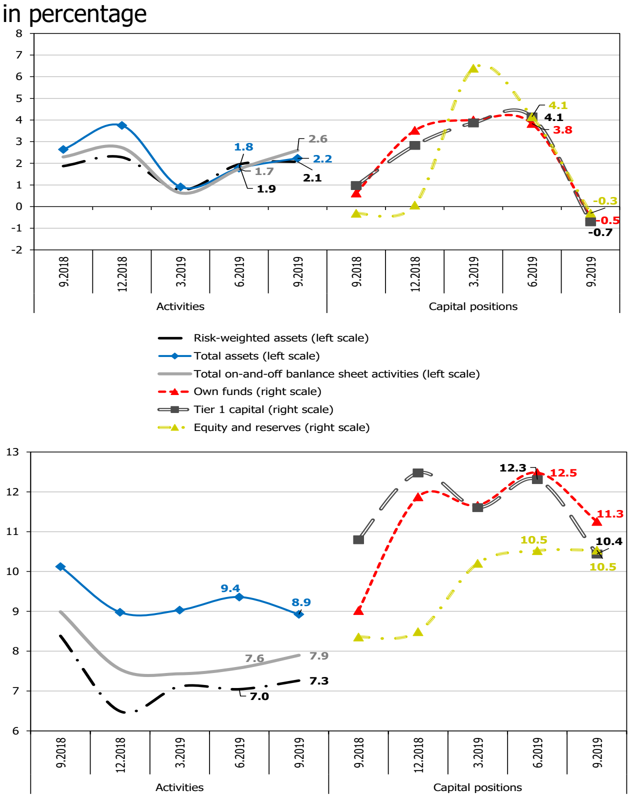
[60]Banks are obligated to calculate the capital adequacy rate on a semi-annual basis (as a ratio between Capital Tier I and total balance sheet and off-balance sheet exposure), which for the first half year of 2019 amounted to 10.8% (for the second half of 2018 amounted to 10.5%). According to the Basel standards for the debt ratio, the minimum value of this indicator shall not exceed 3%, but in the RNM this limit is not yet prescribed.

Chart 59
Movement of the capital adequacy ratio
in percentage



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

Chart 60
Changes in the components of solvency indicators, quarterly (above) and annual (below)
in percentage



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

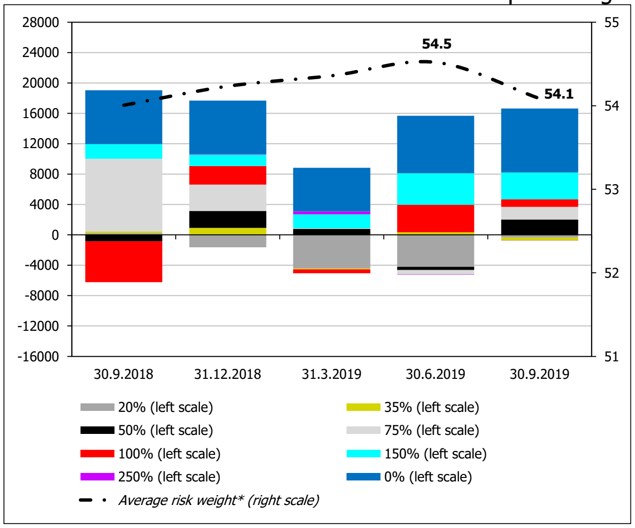
2019, mainly arises from the negative quarterly changes in individual capital items[61] of the banking system, compared to the growth in the banking system activities[62] (mostly liquid assets and household loans).

The quarterly growth of risk weighted assets mostly arises from the growth of credit risk weighted assets, which increased by 1.8% (as opposed to 0.9% in the previous quarter), as well as from the growth of currency risk weighted assets, which registered a growth of 27.7% as a result of the growth of the aggregate currency position (widening of the gap between assets and liabilities with currency component).

The risk level of the banking system activities, calculated through the ratio between credit risk-weighted assets and total balance sheet and off-balance sheet exposure, decreased by 0.4 percentage points and amounted to 54.1% on 30 September 2019. Such decrease of the average risk weight mostly arises from the significant quarterly growth of items with risk weight of 0%, as a result of the quarterly growth of liquid assets of the banking system. At the same time, items with

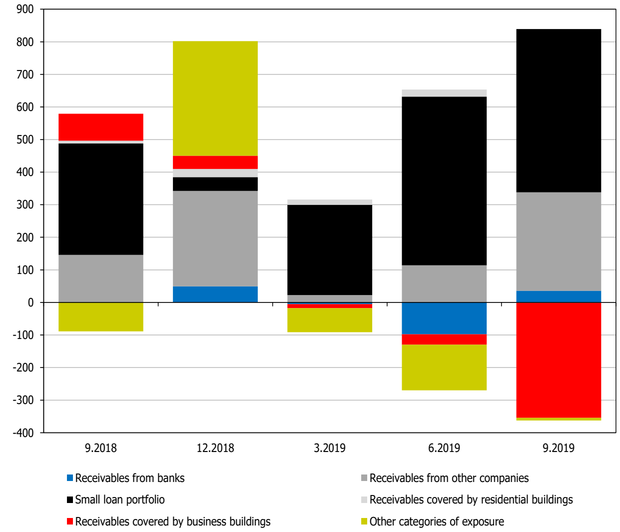
[61]Capital and reserves, Capital Tier I and own funds registered a quarterly decrease of 0.3%, 0.7% and 0.5%, respectively.
[62]Assets, total balance sheet and off-balance sheet activities and risk weighted assets registered a quarterly increase of 2.2%, 2.6% and 2.1%, respectively.

Chart 61
Quarterly changes in total balance sheet and off-balance sheet exposure, by risk weights
in millions of Denars in percentage



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

Chart 62
Quarterly changes of capital requirements for credit risk coverage, by exposure category
in millions of Denars



Source: National Bank, based on data submitted by banks.
The high absolute growth of the claims from other trade companies and simultaneous similar absolute decrease of claims covered with business facilities is, almost entirely, present in one large bank and arises from the reclassification of these activities, from one to another item in the capital adequacy forms.

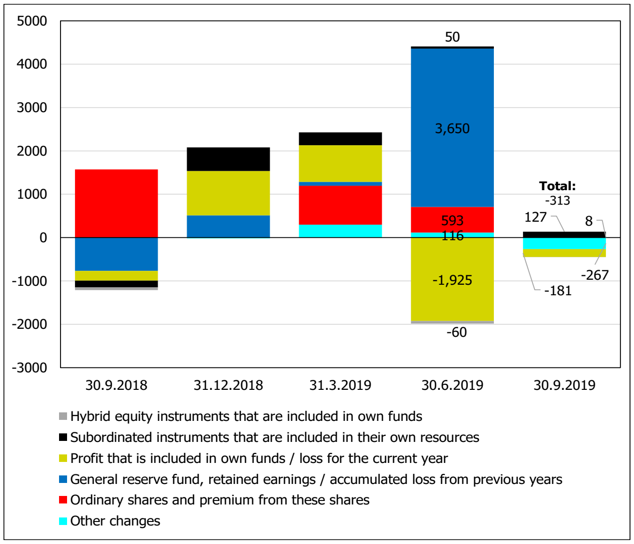
risk weight of 150% and 75% register a higher quarterly growth, as a result of the increase in the small loans portfolio (credit activity to households), as well as items with risk weight of 60% (receivables from banks).

5.2. Quality of banking system own funds

In the third quarter of 2019, the own funds of the banking system registered a decrease of Denar 313 million i.e. -0.5%. In the absence of new issues of shares and reinvestment of profit in the banks' capital, the downward quarterly movement of own funds is due to the investments of one bank in subordinated instruments in a non-bank financial institution, which, according to the regulation, is included in the deductible items of banks' own funds. An additional reason for the quarterly decline of own funds is the growth of the current loss of banks in one bank, which is also a deductible item of own funds.

However, the quality of own funds is at a high level, with the share of Common Equity Tier I capital (the highest quality component of own funds) in the total own funds of 90.3%. More details regarding the level of own funds by bank group are presented in the annexes to this report.

Chart 63
Structure of quarterly changes of own funds
in millions of Denars

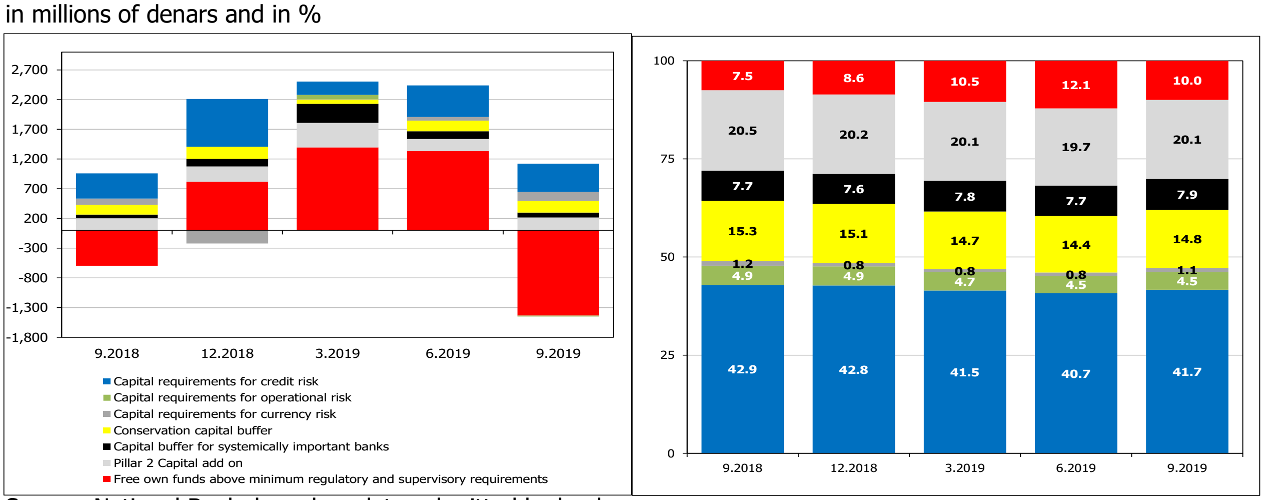


Source: National Bank, based on data submitted by banks.

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

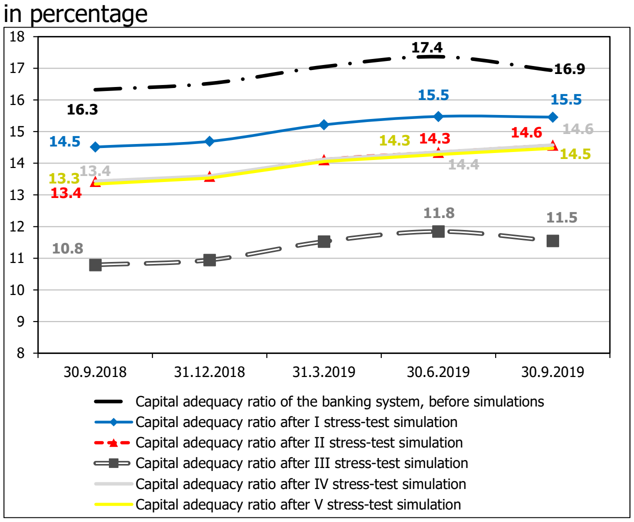
The conducted stress-testing of the resilience of the banking system and individual banks to simulated shocks indicates mostly better results compared to 30 June 2019. Namely, in all simulations where growth of non-performing credit exposure is assumed, despite the lower capital adequacy in the third quarter of 2019, the stress-testing results are better, due to the significant decrease of non-performing credit exposure and consequently lower starting base of this exposure prior the simulations. Only the results of the simulations which assumes transition from regular to non-performing credit exposure are slightly weaker, which is conditioned by the decrease in the capital adequacy of the banking system in the third quarter of 2019 (prior the simulations). The capital adequacy of the banking system does not decrease below 8% in any of the simulations, although individual banks have a hypothetical need for recapitalization amid simulated extreme shocks.

Chart 64
Structure of quarterly changes (left) and balance (right) of own funds, according to the need of covering individual risks and maintaining necessary capital buffers
in millions of denars and in %



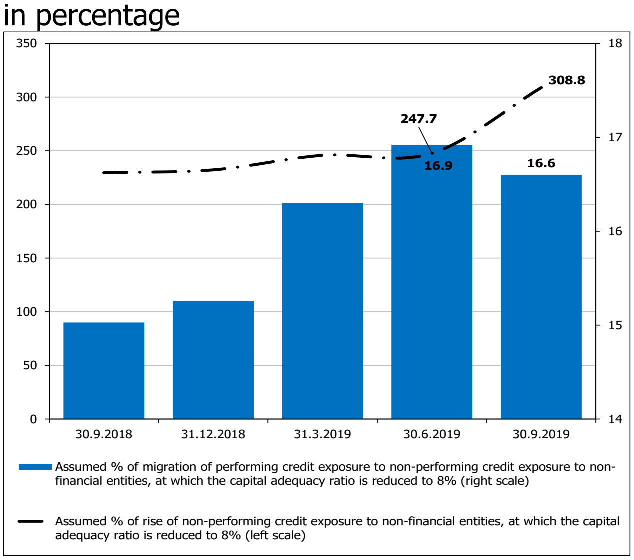
Source: National Bank, based on data submitted by banks.

Chart 65
Results of the stress test simulations
in percentage



Source: National Bank, based on data submitted by banks[63].

Chart 66
Necessary deterioration of the credit exposure quality, in order to reduce the capital adequacy of the banking system to 8%
in percentage



National Bank, based on data submitted by banks.

The results from the so-called reverse stress test show that a growth of 308.8% of the non-performing credit exposure is needed i.e. transmission of 16.6% from regular to non-performing credit exposure, in order for the capital adequacy of the banking system to be lowered to the level of 8%. However, such an assumption is vastly extreme, given that in the third quarter, the non-performing credit exposure to non-financial entities registers a quarterly growth of 4.5%, excluding the effect of the mandatory write-offs (or decline of 11.6% without excluding the effect of write-offs). On the other hand, in the third quarter of 2019, only 0.8% of regular credit exposure to the non-financial sector obtained a non-performing status.

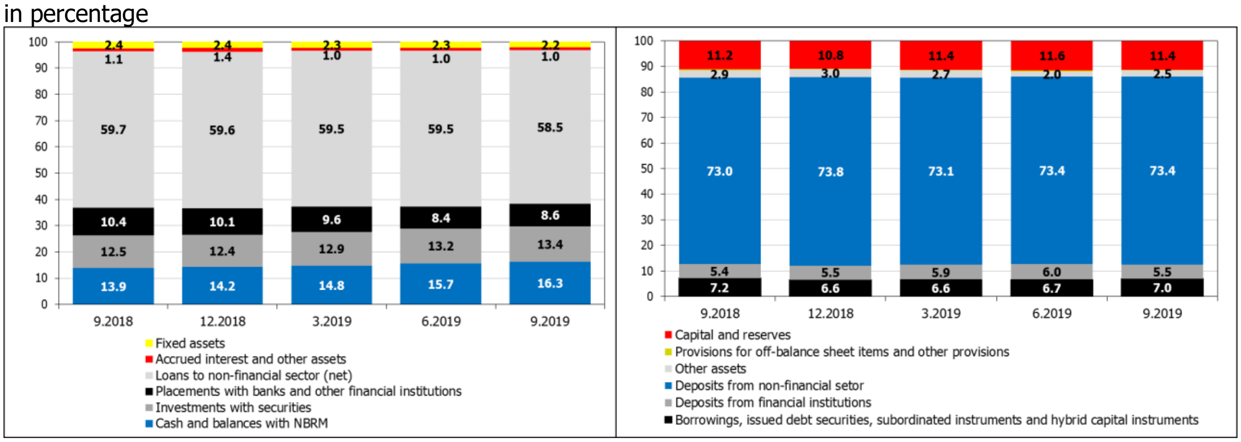
[63] Stress testing includes the following simulations:
I: Increase of non-performing credit exposure to non-financial entities by 50%;
II: Increase of non-performing credit exposure to non-financial entities by 80%;
III: Transmission of 10% from regular to non-performing credit exposure to non-financial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

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

1. Banks' activities

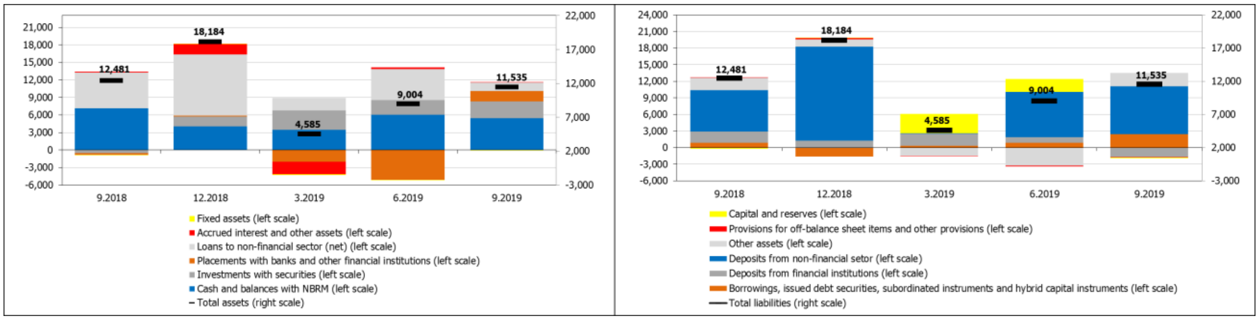
During the third quarter, the total assets of the banking system continue to grow, but at an accelerated pace compared to the previous quarter. The growth of banks' assets mostly arises from the accelerated growth of the deposits of non-financial entities, with domestic banks placing most of the newly collected funds in liquid assets, and a slightly smaller part was used to strengthen the credit activity, primarily with the household sector. As of 1 July 2019, the new Decision on credit risk management started to be applied, which obliges banks to faster "clear" the non-performing loans from their balance sheets. This had appropriate effect on the quarterly dynamics of loans. Namely, the total lending activity of the banks with the non-financial sector registered a minor quarterly decline, which entirely resulted from the reduction corporate loans, while household loans continue to grow solidly. Liabilities based on banks' loans also registered further increase, while deposits from financial institutions decreased, following the moderate growth in the previous quarter of the year.

Chart 67
Structure of assets (left) and liabilities (right) of the banking system
in percentage



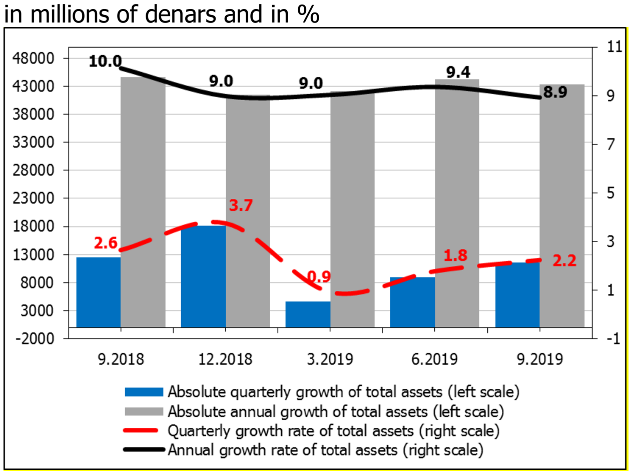
Source: National Bank, based on data submitted by banks.

Chart 68Quarterly growth of the components of assets (left) and liabilities (right) of the banking system
in millions of denars and in %



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

Chart 69
Banking system assets
in millions of denars and in %



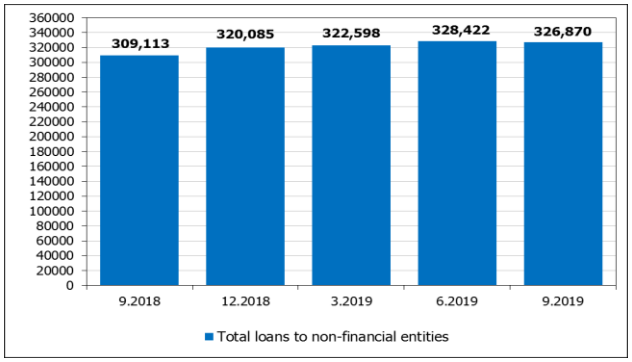
Source: National Bank, based on data submitted by banks.

As of 30 September 2019, the total assets of the banking system amount to Denar 528,952 million and registers a quarterly growth of Denar 11,535 million or 2.2% The quarterly growth of assets accelerated compared to the growth in the previous quarter (1.8%), while compared to the same period last year there is a certain acceleration (of 0.4 percentage points). On the liabilities side, deposits of non-financial entities register the highest quarterly growth, and a certain contribution was made by the increase of liabilities based on loans to non-residents and realized profit in the third quarter of 2019. Within assets, the highest growth was registered in liquid assets (primarily investments in domestic Eurobonds and funds in the denar accounts with the National Bank). Some of the newly collected sources of financing are were used for lending to the non-financial sector, primarily to households.

1.1. Loans to non-financial entities

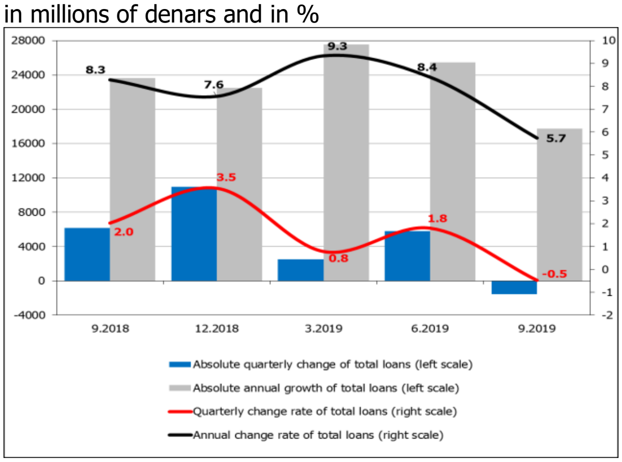
In the third quarter of 2019, lending to non-financial entities registered a certain quarterly decrease, which was mostly influenced by the new credit risk management regulation, implemented as of 1 July 2019, which obliges banks to

Chart 70
Amount of loans to non-financial entities
in millions of Denars



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

Chart 71
Growth of loans to non-financial entities
in millions of denars and in %



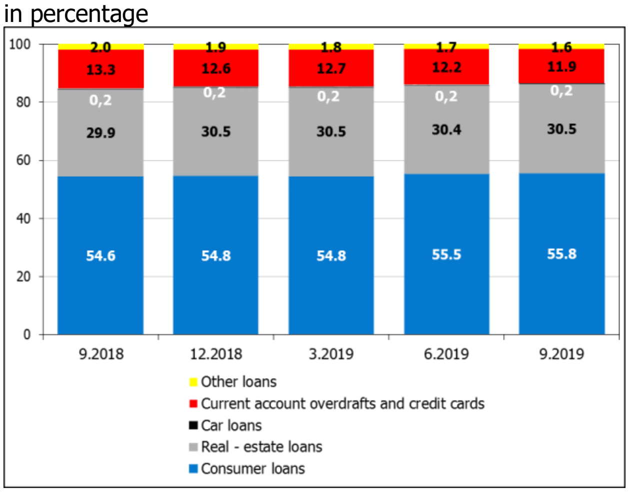
Source: National Bank, based on data submitted by banks.

faster "clear" non-performing loans from their balance sheets. Loans to non-financial entities[64] decreased by Denar 1,552 million or by 0.5% (compared to the growth of 1.8% in the second quarter of 2019 and the growth of 2.0% in the third quarter of 2018). On an annual basis, lending registers a decelerated growth of Denar 17,757 million or 5.7% (8.4% as of 31 December 2018 i.e. 8.3% as of 30 September 2018). Analyzed by bank, eight out of fifteen banks registered a decrease in loans to non-financial entities. The quarterly decrease of loans results from the performed obligatory transfer to off-balance sheet records of the fully provisioned non-performing loans, for which, in accordance to the amendments to the regulation on credit risk management, starting in 1 July 2019, the period in which banks were obliged to mandatory write-off was reduced from two to one year, from the moment they have fully provisioned these loans with impairment[65]. However, even if we exclude the effect of the write-offs, total loans to non-financial entities would register a modest quarterly growth of 0.6%

The quarterly decline of the lending activity was mostly as a result of the decrease of loans to non-financial companies, while lending to households registered a solid growth. Loans to non-financial companies decreased quarterly by Denar 5,179 million or by 3.2% (these loans decreased by 1.4%, if we isolate the effect from the mandatory write-off of non-performing loans), which also caused a triple decrease of the annual growth rate of these loans, to the level of 2.1% (6.7% as of 30 June 2019). The weak growth of corporate lending is also reflected in the widening of the deviation of the growth rate of the ten-year moving average, as well as its approximation

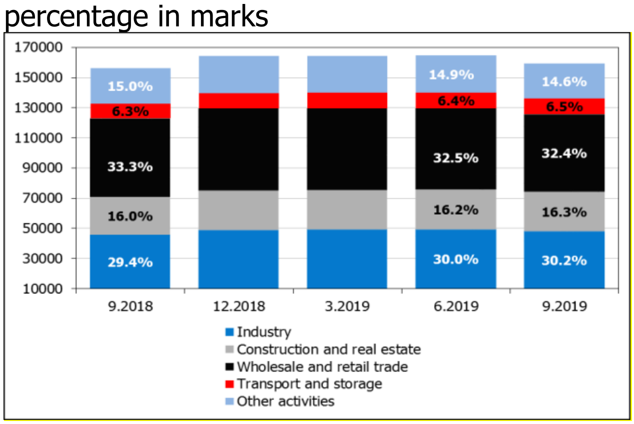
[64]Loans to non-financial entities include loans to non-financial persons – residents and non-residents such as loans to both private and public non-financial companies, central government, local self-government, non-profit institutions serving the households (loans to other clients), sole proprietors and the individuals (loans to households).
[65]More details in the credit risk section of this report.

Chart 72
Structure of loans to natural persons, by product
in percentage



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

Chart 73
Structure of loans to non-financial entities, by activity
in amounts displayed in the bars and percentage in marks



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

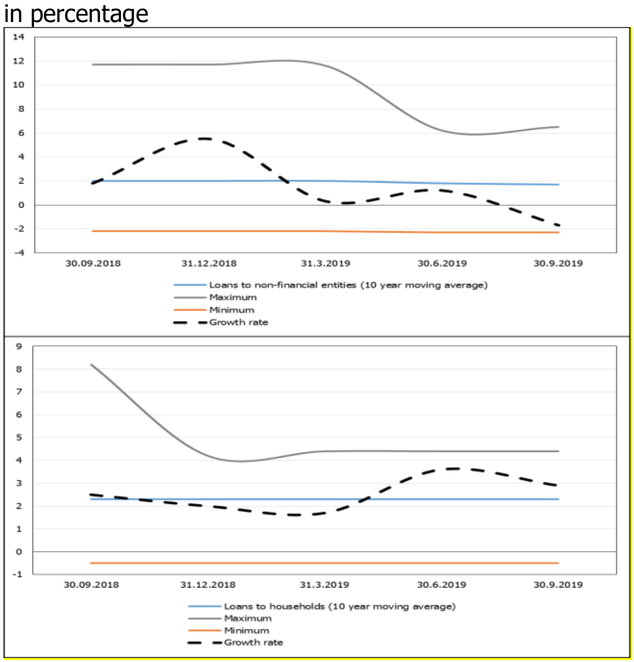
to the minimum value of the average. Household loans[66] in the third quarter of 2019 increased by Denar 3,752 million or by 2.3% (2.8%, if we isolate the effect of the mandatory write-off of non-performing loans), which is still lower than the growth in the second quarter of the year (3.4%). The annual growth of household loans also slowed down moderately, to the level o0f 9.7% in the third quarter (9.9% as of 30 June 2019). The still solid credit support to households corresponds to the net-easing of the total credit terms, which also continues during the third quarter of 2019, more pronounced compared to the previous quarter, especially in housing loans (where 59% of banks indicate easing credit terms, which is the highest percentage of banks in the last almost five years). Among factors that cause a change in the terms for granting loans, competition from other banks remains a factor with the most pronounced impact on the net-easing of the terms for granting loans to households, which is stronger in housing loans.

Despite this, in the third quarter of 2019, there was a decrease in the demand for loans by households, in contrast to the increase in the previous quarter. A decrease in demand is registered in all types of household loans. Thus, the factor with the greatest impact on reducing the demand for housing loans is "loans of other banks", while the factor "household savings" contributed most to reducing the demand for consumer loans (although the factor "loans of other banks" is estimated as a high impact factor)[67].

The constant relatively high growth of household loans increased their structural share in total loans, which as of 30 September 2019 (50.5%) exceeds the share of loans of non-financial companies in total loans (48.4%). In six out of fourteen banks, the share of household loans in the banks' credit

[66] Consumer loans, negative current account balances and credit cards are the most used household credit products.
[67] Source: Bank Lending Survey, third quarter 2019.

Chart 74
Ten-year moving average of quarterly growth rates of household loans (above) and loans of non-financial companies (below)
in percentage



Source: National Bank, based on data submitted by banks.
*Note: Data for the period from 2016 to 30 September 2019 excluding the effect of the regulatory change for mandatory write-offs

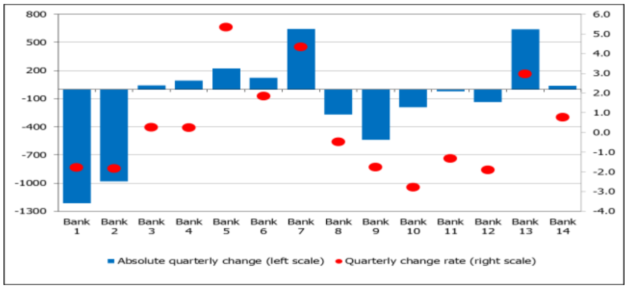
portfolio is higher than the share of corporate loans. Thus, three of the large banks account for 59.4% of the total household loans at the level of the banking system. Analyzed by credit products, 67.7% of loans to individuals are intended to finance the non-specific consumption of individuals (consumer loans, overdrafts and credit cards).

Analyzed in terms of currency, the decrease of total loans in the third quarter of 2019 resulted from the decrease of denar loans[68] and foreign currency loan[69]s, while denar loans with foreign currency[70] clause registered a solid quarterly growth. In the currency structure of total loans, no significant changes were registered compared to the previous quarter and denar loans continue to have a leading structural share (57.9%).

In terms of maturity, the maturity of the credit portfolio continued to increase through further growth of long-term lending which at the end of the third quarter reached a share of 81.6% in the structure of total regular loans. Almost 58% of the growth of long-term loans is due to the household denar loans with foreign currency clause[71]. Contrary to this, the decrease of short-term loans is entirely due to the loans to non-financial companies[72].

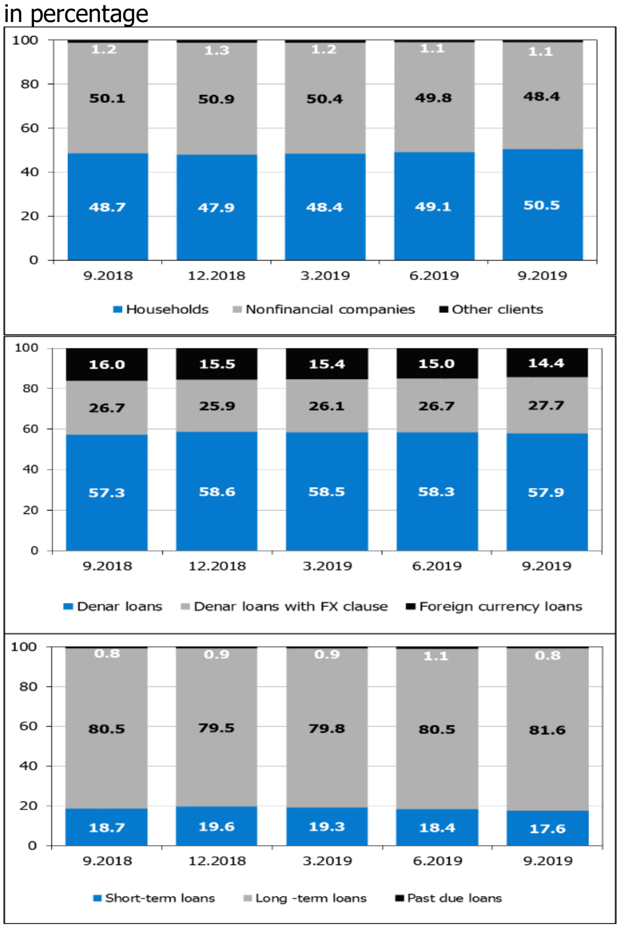
[68]On a quarterly basis, denar loans decreased by Denar 2,268 million or 1.2%. The decrease of denar loans arises from loans to non-financial companies (decrease of Denar 3,740 million or 3.7%), compared to the growth of household loans (Denar 1,480 million or 1.7%).
[69]On a quarterly basis, foreign currency loans decreased by Denar 2,129 million (or by 4.3%), almost entirely due to the loans to non-financial companies (Denar 2,162 million or 5.7%).
[70]On a quarterly basis, denar loans with foreign currency clause increase by Denar 2,844 million or by 3.2%, and within them, household loans increased by Denar 2,190 million (or 3.5%), while the growth of loans to non-financial companies is slightly smaller and amounts to Denar 723 million (3.0%).
[71]The long-term household denar loans with foreign currency clause register a quarterly growth of Denar 2,200 million or 3.6%.
[72]Short-term loans decreased by Denar 2,257 million or 4.4% on a quarterly basis. The decrease of short-term loans was entirely due to the loans to non-financial companies (decrease of Denar 2,649 million or 5.6%).

Chart 75
Quarterly growth of total loans of non-financial entities, by bank
in millions of denars and in %



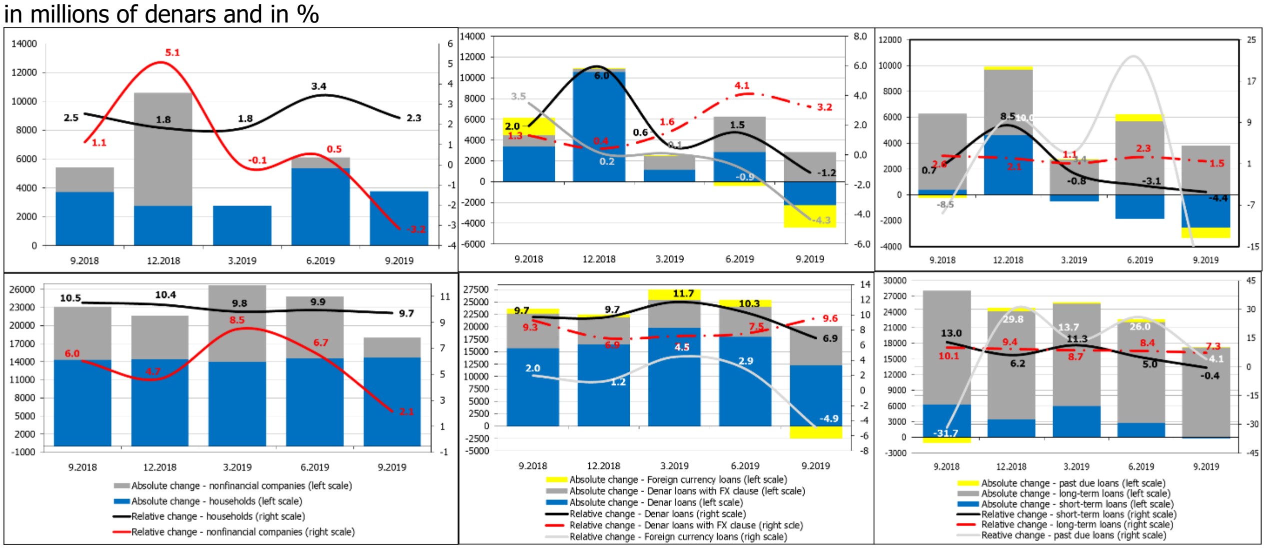
Source: National Bank, based on data submitted by banks.

Chart 76
Structure of total loans, by sector (above) and currency (center) and structure of regular loans, by maturity (below)*
in percentage



Source: National Bank, based on data submitted by banks.
*Note: Non-performing loans are excluded from the structure of total loans.

Chart 77
Quarterly (above) and annual (below) growth of loans, by sector, currency and maturity
in millions of denars and in %



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

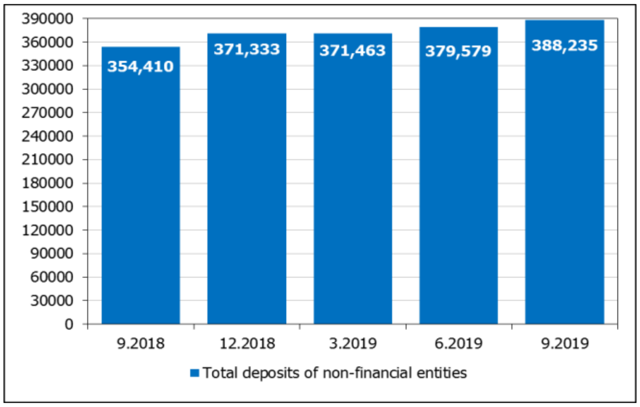
1.2. Deposits of non-financial entities

In the third quarter of the year, deposits of non-financial entities registered a growth in which the household and corporate sector had a similar absolute contribution. The quarterly growth of the total deposit base of the banks accelerated and amounted to Denar 8,655 million, or 2.3% (growth of 2.2% in the second quarter of 2019), while the annual growth amounted to Denar 33,825 million, or 9.5 % (9.4%, as of 30 June 2019). Analyzed by individual banks, 84.5% of the growth of the deposit base stems from the increase of deposits with three banks from the group of large banks. Thereby, only four out of fourteen banks[73] registered a decrease in total deposits compared to the previous quarter.

Households, which are traditionally the most important depositor of the Macedonian banking system (with a share of 68.7% in total deposits), in the third quarter of 2019, increased their assets in banks by Denar 4,236 million, or 1.6%. **Deposits of non-financial companies** increased by Denar 4,230 million, or by 4.1%.

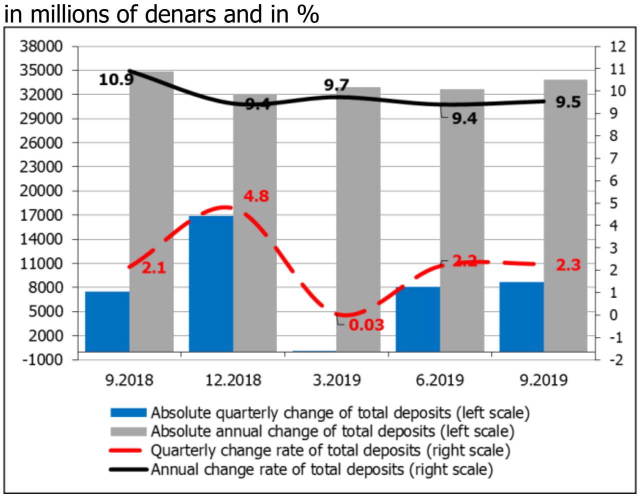
[73]"Development Bank of North Macedonia" AD Skopje is excluded from this analysis.

Chart 78 Balance of deposits of non-financial entities
in millions of Denars



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

Chart 79
Change in deposits of non-financial entities
in millions of denars and in %



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

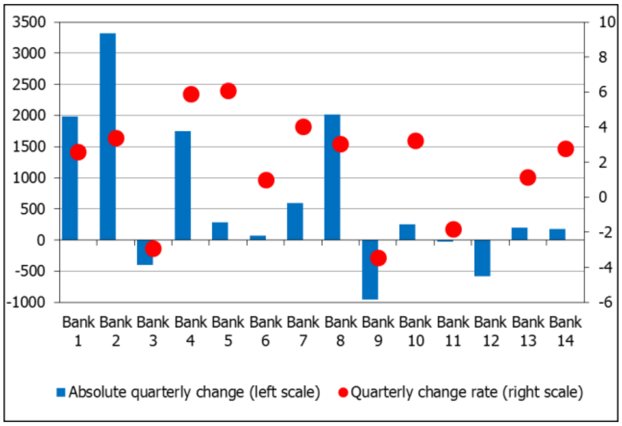
In terms of currency, Denar deposits had the largest contribution to the quarterly growth of the deposit base, increasing by Denar 6,123 million, or 2.8%. Thereby, the deposits of non-financial companies had a higher contribution (71.6%) in the growth of denar deposits compared to the contribution of household deposits (28.3%). In both sectors, the growth of Denar deposits stems from sight deposits[74]. **Foreign currency deposits** increased (by Denar 2,866 million, or 1.8%), which mostly resulted from household sight deposits[75]. Such developments contributed to the growth of the share of denar deposits in the total deposit base, which at the end of the third quarter amounted to 57.9% and was higher by 0.3 percentage points compared to 30 June 2019.

In terms of maturity, sight deposits[76] registered the highest quarterly growth (Denar 9,759 million, or 5.1%), due to the growth of deposits in both sectors. Long-term deposits[77] increased by Denar 947 million, or 0.9% on a quarterly basis, while short-term deposits decreased by Denar 2,050 million, or 2.5%, mainly due to the lower level of short-term deposits of non-financial companies[78].

In the maturity structure of household deposits, in the third quarter of 2019, the structural share of sight deposits increased (from 39.8% on 30 June 2019, to 40.5% on 30 September 2019). The share of short-term deposits continued its downward trend (from 26.2% on 30 June 2019, to 25.7% on 30

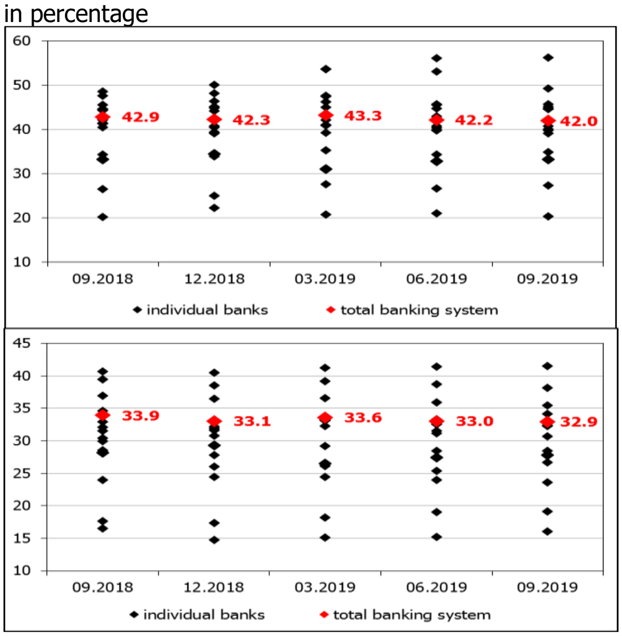
[74]The quarterly increase of denar sight deposits of non-financial companies amounted to Denar 4,801 million, or 8.6%, while the quarterly increase in denar sight deposits of households amounted to Denar 1,591 million, or 2.7%.
[75]The quarterly increase in foreign currency sight deposits of households amounted to Denar 2,118 million, or 4.6%.
[76]In the quarterly growth of sight deposits, denar deposits of non-financial companies had a contribution of 49.2%, while denar deposits of households had a significantly lower contribution at 16.3%. The contribution of foreign currency deposits of non-financial companies in the quarterly growth of sight deposits was 11.0%, while the contribution of foreign currency deposits of households was higher at 21.7%.
[77]The quarterly growth of long-term deposits is a result of the increase in foreign currency deposits of households (by Denar 529 million) and the foreign currency deposits of non-resident non-financial companies (by Denar 339 million).
[78]Short-term deposits of non-financial companies decreased by Denar 1,509 million (or 11.5%), with the largest contribution being made by foreign currency deposits (57.9%). The decrease in short-term household deposits amounted to Denar 352 million (or 0.5%), which for the most part (58.6%) was conditioned by denar deposits.

Chart 80
Quarterly growth of total deposits of non-financial entities, by individual bank
in millions of denars and in %



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

Chart 81
Share of total foreign currency deposits (above) and household foreign currency deposits (below) in total deposits of banks/banking system
in percentage



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

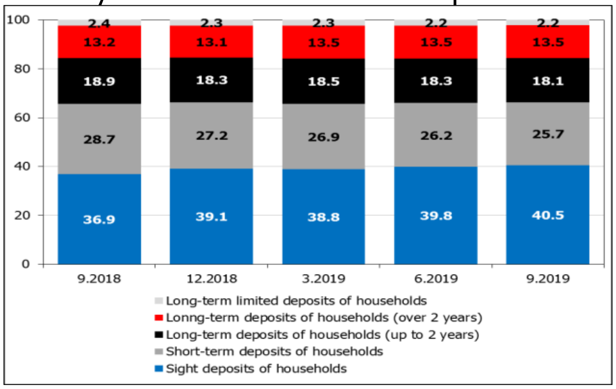
September 2019), while the share of long-term deposits decreased from 34% to 33.8%.

1.3. Other activities

In the third quarter of 2019, banks' investments[79] in securities (according to net book value) increased by Denar 2,935 million (or 4.3%), which contributed to increase of the share in total assets of banks to 13.4 % as of 30 September 2019. Such developments are fully conditioned by the growth of banks' investments in domestic government Eurobonds issued on foreign markets (by Denar 2,698 million, or 71.8%). In contrast, banks reduced the investments in treasury bills (by Denar 475 million, or 2.8%), while the investments in CB bills remained unchanged compared to the previous quarter in conditions of unchanged basic interest rate of the National Bank (2.25 %) and unchanged supply of CB bills (Denar 25,000 million). Such movements contributed to the quarterly increase of the share of investments in government bonds in the total portfolio of securities with banks, from 34.4%, as of 30 June 2019, to 37.8%, as of 30 September 2019, at the expense of the decrease of the share of the placements in treasury bills (from 25.1%, as of 30 June 2019, to 23.4% as of 30 September 2019).

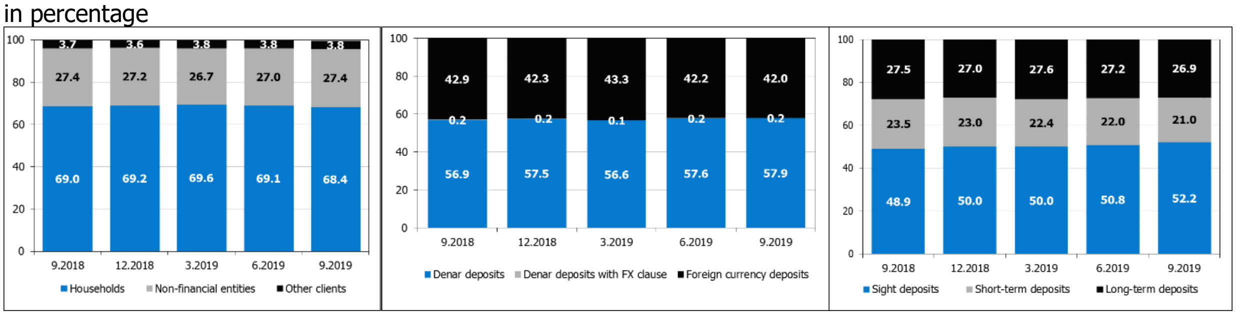
[79] Including investments in affiliated companies.

Chart 82
Maturity structure of household deposits



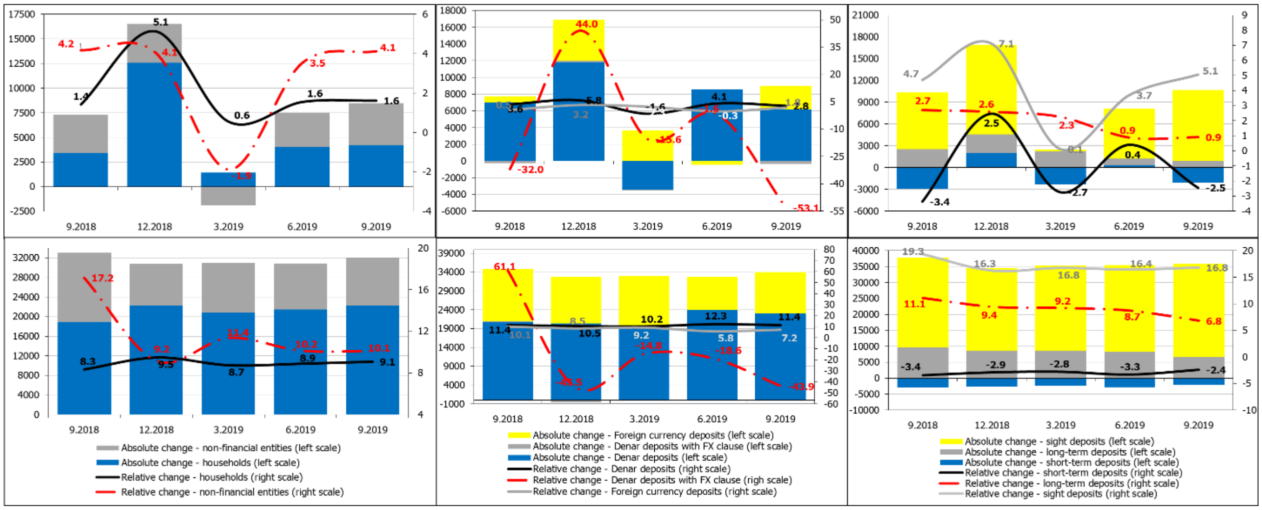
Source: National Bank, based on data submitted by banks.

Chart 83
Structure of total deposits, by sector (left) and currency (center) and maturity (right)
in percentage



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

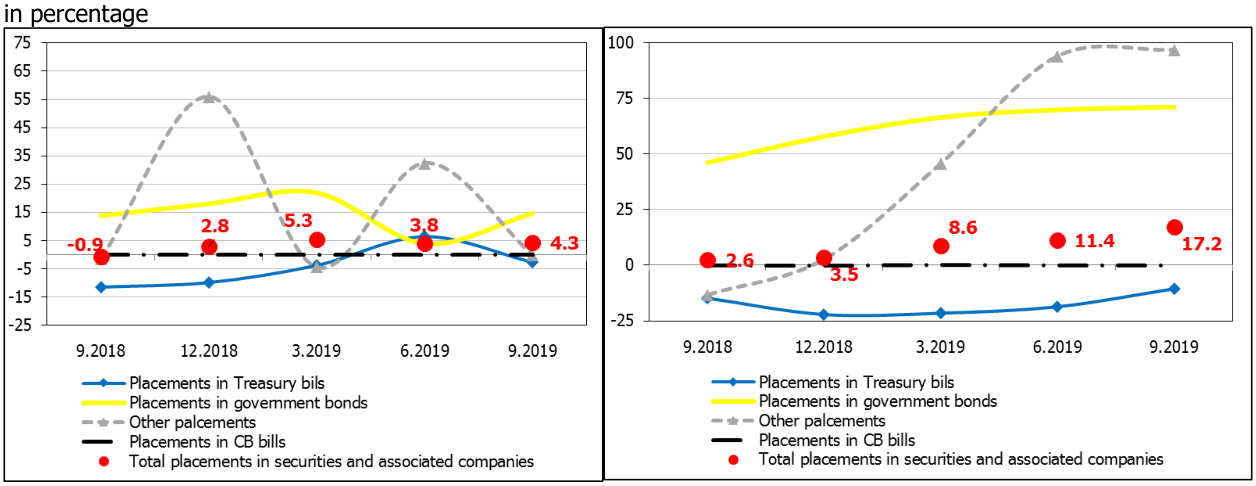
Chart 84Quarterly (above) and annual (below) change of deposits, by sector, currency and maturity
in millions of denars and in %



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

Placements with banks and other financial institutions in the third quarter of 2019 increased by Denar 1,716 million, or 3.9%. All categories of placements[80] increased, with the largest contribution coming from the growth of funds in foreign bank accounts[81]. On a quarterly basis, **total liabilities based on loans** increased by Denar 2,159 million, or 7.5%, due to the growth of liabilities based on foreign currency loans up to one month (by Denar 1,107 million), mostly to the parent entity of a large bank and the growth of long-term liabilities based on foreign currency loans to non-resident financial companies (by Denar 1,216 million).

Chart 85
Quarterly (left) and annual (right) change of the securities portfolio
in percentage

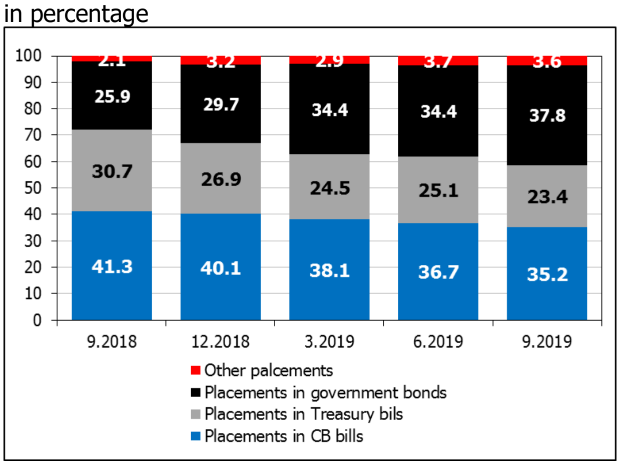


Source: National Bank, based on data submitted by banks.

Deposits from banks and other financial institutions are a small source of financing for banks, with a share of 5.5% in the total liabilities of the third quarter of 2019. The decrease in deposits from banks and other financial institutions (by Denar 1,706 million or 5.5%) arises from the decrease in foreign currency deposits of non-resident financial institutions up to one month (by Denar 826 million) in one large bank and from the decrease of foreign currency deposits of non-resident financial institutions, with a maturity from 3 to one year (by Denar 878 million).

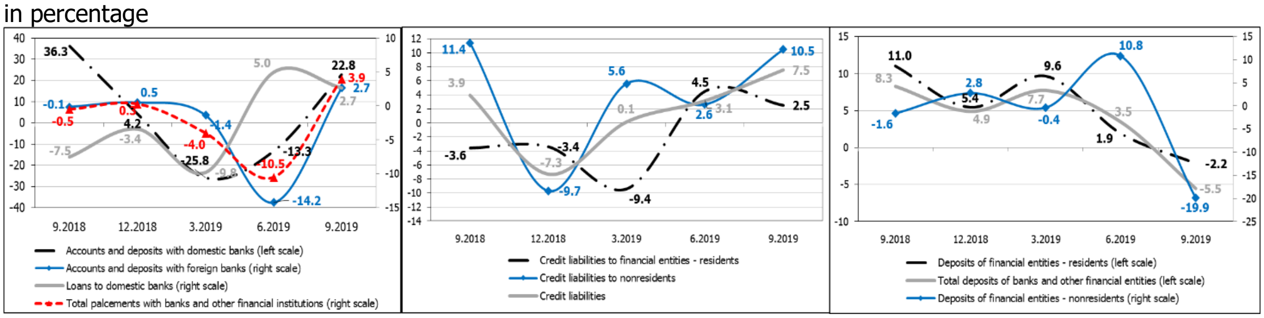
[80]The funds on the accounts and deposits with the domestic banks in the third quarter increased by Denar 316 million, which is mostly due to the growth of the term deposits of the domestic banks in foreign currency overnight at one large bank and the growth of term deposits of the domestic banks in foreign currency for up to 1 month at a medium-sized bank. Loans to domestic banks increased by Denar 235 million quarterly, entirely as a result of the growth of long-term loans granted to domestic banks in foreign currency (placed through DBNM AD Skopje).
[81]The quarterly growth of funds on the accounts and deposits with foreign banks amounted to Denar 869 million (or 2.7%) and is entirely a result of the growth of the balances of regular foreign currency accounts by Denar 2,112 million (mostly in three large banks and one medium-sized bank). In contrast, foreign currency term deposits abroad decreased by Denar 1,248 million quarterly. Within them, a significant decrease by Denar 2,728 million was registered in foreign currency term deposits abroad from one to three months in one large bank, amid simultaneous increase of foreign currency overnight term deposits abroad (by Denar 716 million) and increase of one-month foreign currency term deposits abroad (by Denar 718 million).

Chart 86
Structure of securities portfolio
in percentage



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

Chart 87Quarterly change of placements in financial institutions (left), liabilities based on loans (middle) and deposits from financial institutions (right)
in percentage



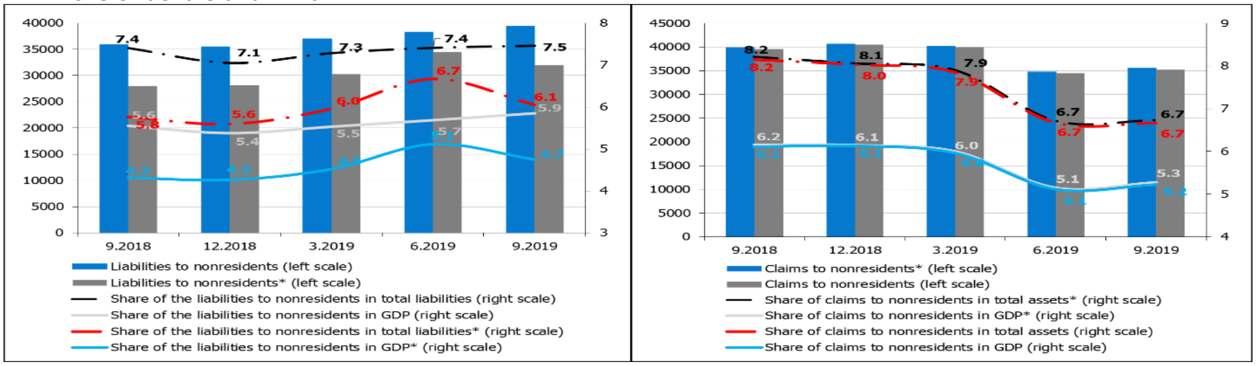
Source: National Bank, based on data submitted by banks.

The banking system owns[82] more than it claims from non-residents. However, the volume of the activities performed by domestic banks with non-residents is relatively small. In the third quarter of 2019, domestic bank liabilities to non-residents registered a growth of Denar 1,111 million or 2.9%, and their share[83] in the total assets of the banking system reached 7.5%. Such increase arises from the aforementioned growth of liabilities based on foreign currency loans up to one month towards the parent entity of one large bank and the growth of long-term liabilities based on foreign currency loans towards non-resident financial entities[84]. Banks' claims from non-residents registered a growth of Denar 867 million (or 2.5%), almost

[82]As of 30 September 2019, eight out of fifteen banks own more than they claim from non-residents.
[83]If we exclude the DBNM AD Skopje from the analysis, the share of liabilities towards non-residents in the total liabilities amounts to 6.1%. Analyzed by bank, this share rages from 0.1% to 19.1%.
[84]Within liabilities towards non-residents in the third quarter of 2019, growth is also registered in liabilities based on foreign currency loans (from one to two years) in one large bank (by Denar 615 million), growth of liabilities based on foreign currency loans (from two to five years) in one medium-sized bank (by Denar 206 million) and growth of liabilities based on foreign currency loans (over five years) in DBNM AD Skopje towards one international financial institution (by Denar 374 million).

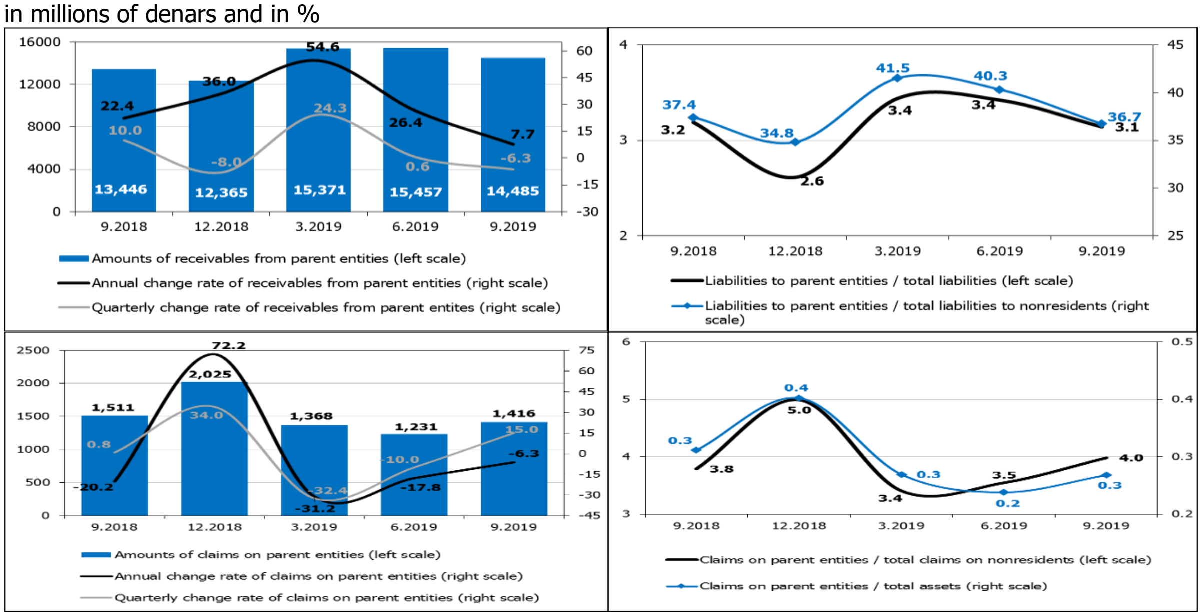
entirely as a result of the increase of assets on the accounts with foreign banks. Thus, the share of claims from non-residents in total assets decreased and amounts to 6.7%[85].

Chart 88
Liabilities towards (left) and claims from (right) non-residents
in millions of denars and in %



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

Chart 89
Liabilities (above) and claims towards/from parent entities of banks (below)
in millions of denars and in %



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

Using loans from parent entities is not a significant source of financing of the domestic banks activities, although some differences may be noted by individual banks. In the

[85] If DBNM AD Skopje is excluded from the analysis, the share of claims from non-residents in total assets remains unchanged and amounts to 6.7%. Analyzed by bank, this share rages from 1% to 11.2%.

third quarter of 2019, banks' liabilities[86] towards their parent entities decreased by Denar 972 million (or by 6.3%), which is entirely as a result of the decrease of short-term deposits from financial entities in one large and one medium-sized bank. Thus, the share of banks' liabilities toward parent entities (including subordinated liabilities and hybrid capital instruments) in the total liabilities of the domestic banking system and liabilities towards non-residents decreased to 36.7% and 3.1%, respectively. Parent entity claims account for only 0.3% of the total assets of the banking system, while their share in the total claims from non-residents amounts to 4%. Compared to the second quarter of 2019, claims from parent entities increased by Denar 185 million.

[86]Analyzed by bank, the share of banks' liabilities towards parent entities in total liabilities towards non-residents rages from 18.3% to 79.1%. Analyzed by bank, the share of banks' liabilities towards parent entities in total liabilities rages from 0.3% to 17%.

2. Profitability[87]

The positive financial result achieved by banks in the first nine months of 2019 is significantly lower compared to the same period last year, which mainly reflects the exhaustion of the effects of one-off factors that caused high profit growth in 2018. Profitability indicators also show a downward correction, but continue to remain above their ten-year average. The reduced financial result is mainly due to the decrease in the income from banks' regular activities, primarily the significantly reduced other regular income (i.e. income from the sale of capital investment and foreclosed assets based on uncollected claims), and at the same time the impairment costs registered a high growth. Excluding the one-off effects, impairment costs would decrease, and the decline in other regular income would be mitigated, only partially amortizing the annual decline in profits. In an environment of historically low interest rates, we should note the accelerated decline in net interest income mainly resulting from higher deposit growth compared to the credit activity of banks. Hence, taking into account the traditional business model of the banks in our country, maintaining a stable net interest income is of great importance for ensuring sustainable profitability of the banking sector in the medium and long term.

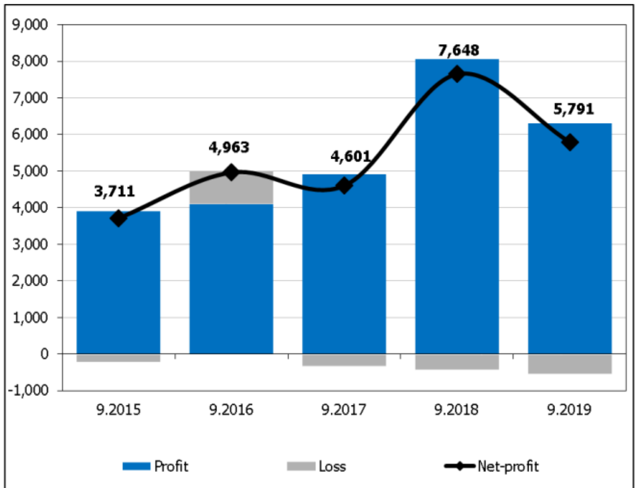
2.1. Indicators of profitability and efficiency of the banking system

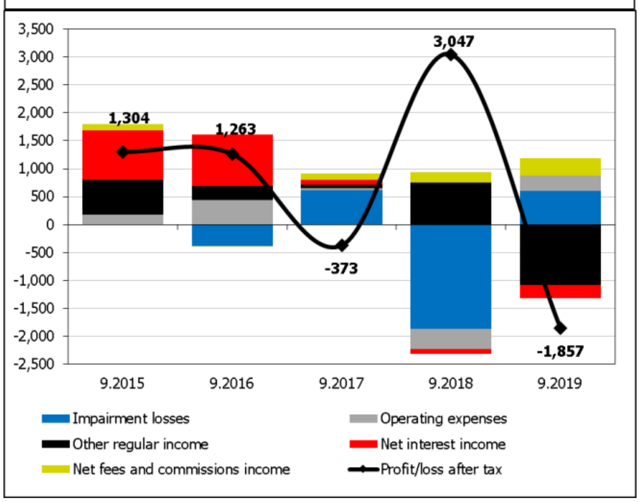
The financial (net) result of the banks in the first nine months of 2019 reached Denar 5.8 billion, which is a decrease of 24.3% compared to the same period last year. The lower profit reflects the exhaustion of the effects of one-off events present in the first three months of 2018 (increased collection of non-performing receivables and sale of capital investment by one bank i.e. reduction of impairment costs and increase of other regular income from operation). Precisely these two categories had opposite movements in the first nine months of 2019, thus contributing to the lower profit. **Excluding the effect of these factors, the decline in the financial result would be significantly lower and would amount to 5.8%.** The lower level of other regular income (even after excluding the one-off effects) contributed to the decrease in the profit, primarily due to the higher comparative base from the previous year[88], and the decrease in the net interest income of banks from the traditional financial intermediation also continued.

[87]All data in this section of the report arising from the income statement of banks (income, expenses, profit, loss, etc.) refer to the first nine months of 2019, and their size is compared with the same period from the previous or some other year. Data arising from the balance sheet (assets, loans, deposits, equity, etc.) or those related to the amount of assets and liabilities interest rates, in this section of the report, are presented as an average of the balances for the first nine months of 2019 and so the average calculated is compared to the average calculated for the first nine months of 2018 or some other year. If the presentation of the data is made on a basis other than the one mentioned above, the same is emphasized in the text.

[88] In the first quarter of 2018, in addition to the capital gain from the sale of capital investment, the increased sale of foreclosed property also contributed to the growth of other regular income.

Chart 90
Net profit after taxation (above) and annual change in main revenues and expenditures (below)
in millions of Denars





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

The growth trend of net income from commissions continued in the first nine months of 2019, with a rate almost twice higher than the same period last year, which fully "covered" the effect of lower net interest income.

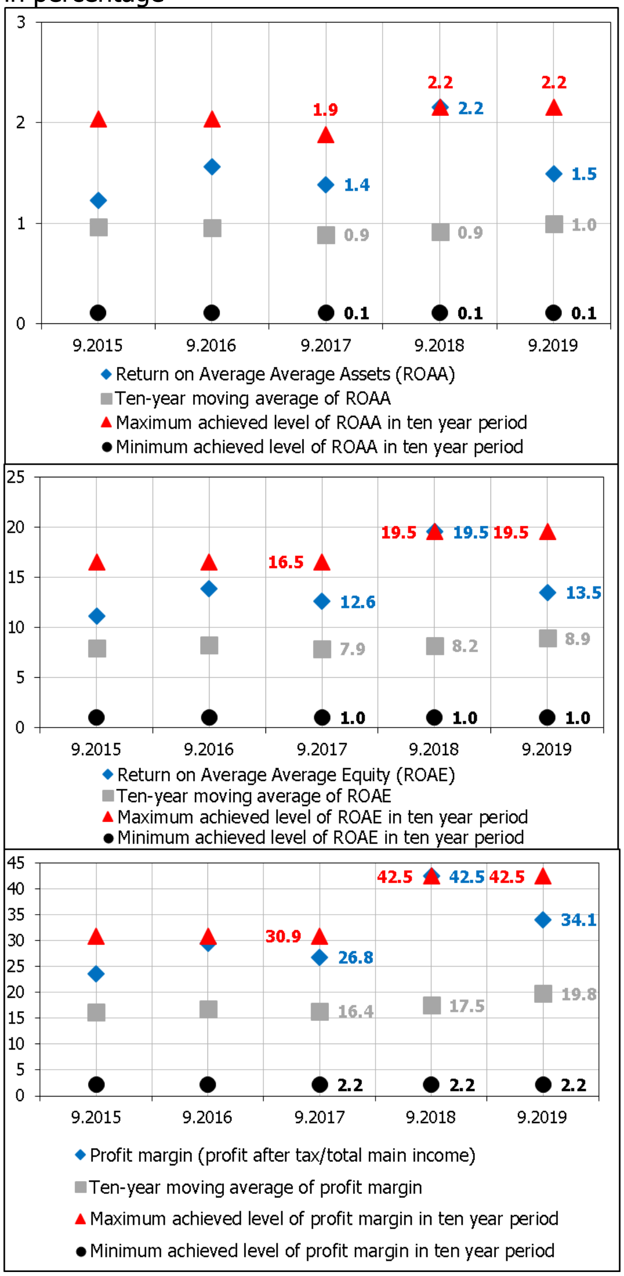
Analyzed by individual groups of banks, all groups achieved a positive financial result from their operations. However, a decrease in net profit was observed in the groups of large and medium-sized banks. Against such movements, the group of small banks improved their profitability.

The reduced profit in the first nine months of 2019 contributed to the downward correction of the basic indicators for the profitability of the banking system. The rate of return on average assets (ROAA) and average equity and reserves (ROAE)[89], as well as the profit margin of the banking system significantly reduced, and if the effect of the aforementioned one-off events is excluded, the profitability indicators would decrease again, but moderately[90].

[89]The average assets and equity and reserves are calculated as average of the assets i.e. equity and reserves on the analyzed date and 31 December of the previous year.

[90]If the isolated effect from one-off events in the first quarter of 2018 is excluded, the rate of return on average assets, as of 30 September 2018 would be 1.7% (1.5% on 30 September 2019), the rate of return on average equity and reserves for the same date would be 15.7% (13.5% on 30 September 2019), while the profit margin would amount to 34.9% (34.1% on 30 September 2019).

Chart 91
Achieved level, ten-year average, maximum and minimum achieved level of return of selected profitability indicators
in percentage



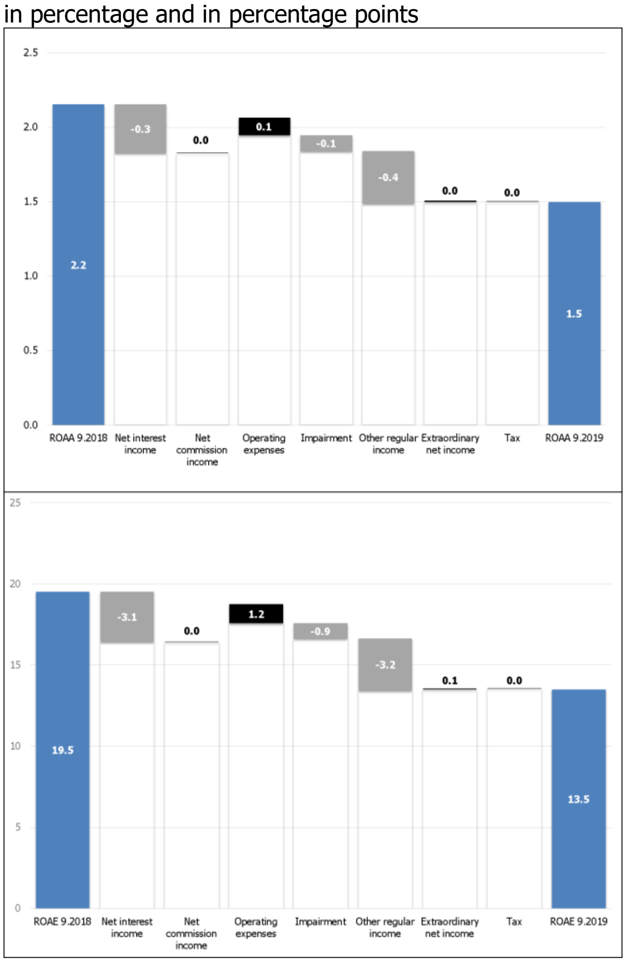
Source: National Bank, based on data submitted by banks.

Analyzed through a time prism of ten years, after reaching the maximum values as of 30 September 2018, the profitability indicators calculated at the end of the third quarter of 2019, are above the calculated ten-year average of these indicators. The indicators of profitability and efficiency of the banking system and individual groups of banks are presented in the annexes of this report.

In the environment of declining interest rates, the net interest margin that banks realized from interest-bearing activities has been on a downward trend in the past period. However, the net interest margin is maintained at a solid level of 3.4%, which shows the capacity of domestic banks to generate income from financial intermediation. Performances in the first nine months of 2019 show a moderate reduction of the net interest margin by 0.3 percentage points on an annual basis, mainly due to the moderate reduction of net interest income (by 2.1% or Denar 239 million)[91], amid simultaneous growth of the average interest-baring assets (by 6.4% or Denar 26,065 million), compared to the first nine months of 2018[92]. The decline in net interest income is due to the further reduction of interest income (by Denar 175 million or 1.2%)[93], amid simultaneous increase of interest expenditures (by Denar 63 million or 2%)[94], compared to the first nine months of 2018.

[91]For comparison, as of 30 September 2018, the net interest income declined by 0.8% (or by Denar 89 million).
[92]For a comparison, as of 30 September 2018, the average interest-baring assets of the banking system registered an annual growth of 7.3% or by Denar 27.599 million.
[93]For comparison, as of 30 September 21018, interest expenditures declined by Denar 206 million or by 1.4%.
[94]For comparison, as of 30 September 2018, interest expenditures decreased by Denar 117 million or by 3.6%.

Chart 92
Breakdown of constituent elements of the rates of return of average assets (above) and average equity and reserves (below)
in percentage and in percentage points

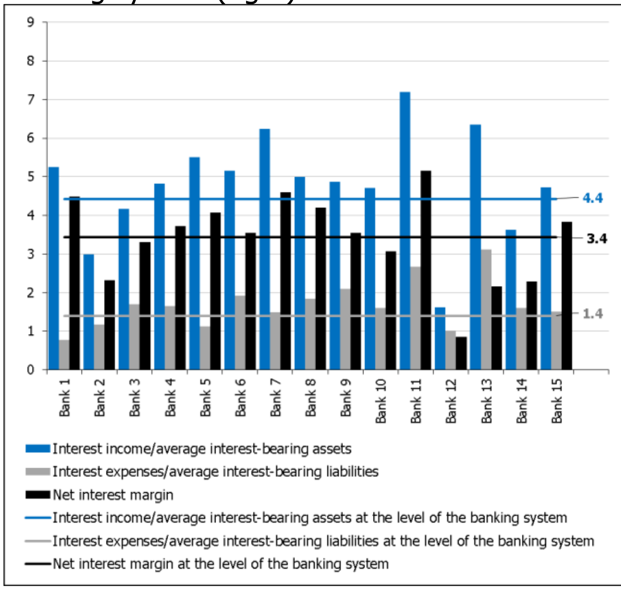


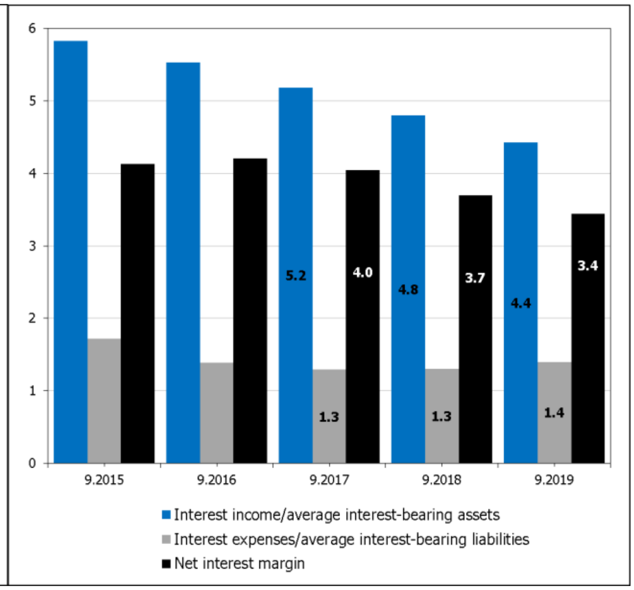
Source: National Bank, based on data submitted by banks.
Note: The chart shows the changes in individual components of profitability expressed as the share of average assets i.e. average capital. The black and gray bars indicate a positive and negative contribution to the growth of ROAA/ROAE, respectively,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

As usual, loan-deposit household activities[95] had the largest contribution in determining the net interest margin, whereby only this sector, in addition to non-residents[96] registered a positive contribution in creating the net interest margin. On the other hand, revenues from financial companies decreased during the first nine months of 2019 (by Denar 197 million or by 22.1%), which is mainly due to the lower interest income from the central bank, which compared to September 2018, reduced the key interest rates twice. The decline of interest income from lending to non-financial companies continues (by Denar 157 million or by 3% on an annual basis), but is more moderate compared to the same period in the previous year[97] when the lending activities of banks to non-financial companies strengthened, compared to the first nine months of 2018[98]. Such movements emphasize the importance of lending activities of the banks for maintaining a stable net interest income.

[95]Net interest income from households in the first nine months of 2019 grew by Denar 277 million or 5.0%, which arises from the growth of interest income (by 253 million or 3.5%) and reduction of interest expenditures (by Denar 24 million or 1.5%).
[96]Interest income from non-residents in the first nine months of 2019 registered a growth of 44.8% or Denar 79 million, as opposed to the lower growth of interest expenditures of 2.2% or Denar 11 million, which contributed to narrowing the negative gap between interest income and interest expenditures from non-residents and had a positive contribution to the growth of net interest margin. However, activities with non-residents represent a very small part of the total activities of the banking system.
[97]In the first nine months of 2018, the interest income from non-resident companies decreased by Denar 372 million or 6.6% on an annual basis.
[98]In the first nine months of 2019, total banks' loans granted to non-financial companies increased at an average rate of 6% (or average absolute change of Denar 9,094 million), compared to the same period in the previous year when the average annual growth was almost double lower and amounted to 3.3% (or average growth of 4,884 million).

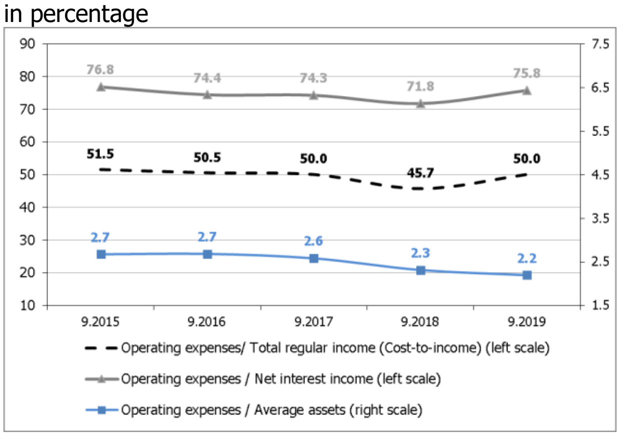
Chart 93
Net interest margin by individual bank, on 30 September 2019 (left)* and at the level of the banking system (right)





Source: National Bank, based on data submitted by banks.
*Indicators at the level of the banking system are presented with lines.

Chart 94
Operational efficiency indicators
in percentage

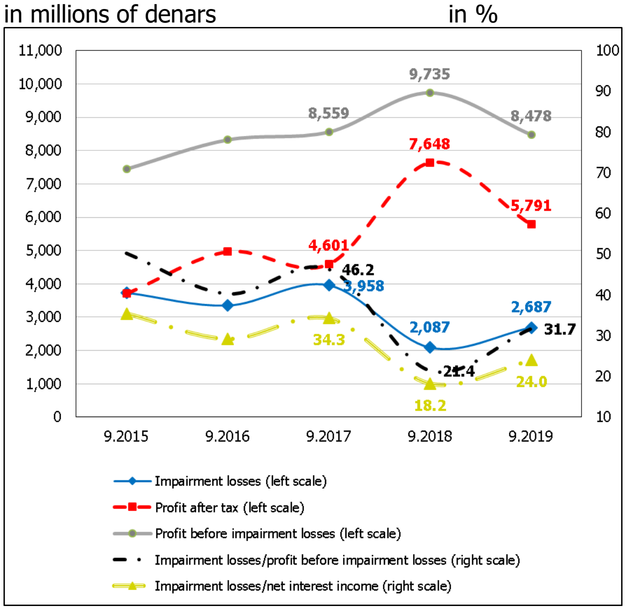


Source: National Bank, based on data submitted by banks.

On the expenditure side, banks recorded higher interest expenditures from almost all sectors[99], with the exception of the household sector. Interest expenditures from households continue to decline, but at a significantly lower pace[100], amid a slower decline in interest rates on deposits in the recent period.

[99]Interest expenditures for financial companies registered the highest absolute growth (by 7.4% or Denar 44 million), followed by interest expenditures towards the government (by Denar 23 million) and expenditures towards non-financial companies (by Denar 11 million or 2.9%).
[100]In the first nine months of 2019, interest expenditures from households are lower by Denar 24 million or 1.5% annually, compared to the same period in the previous year when the annual decrease amounted to Denar 90 million or 5.3%.

Chart 95
Indicators for the share of impairment costs in the profit and net interest income



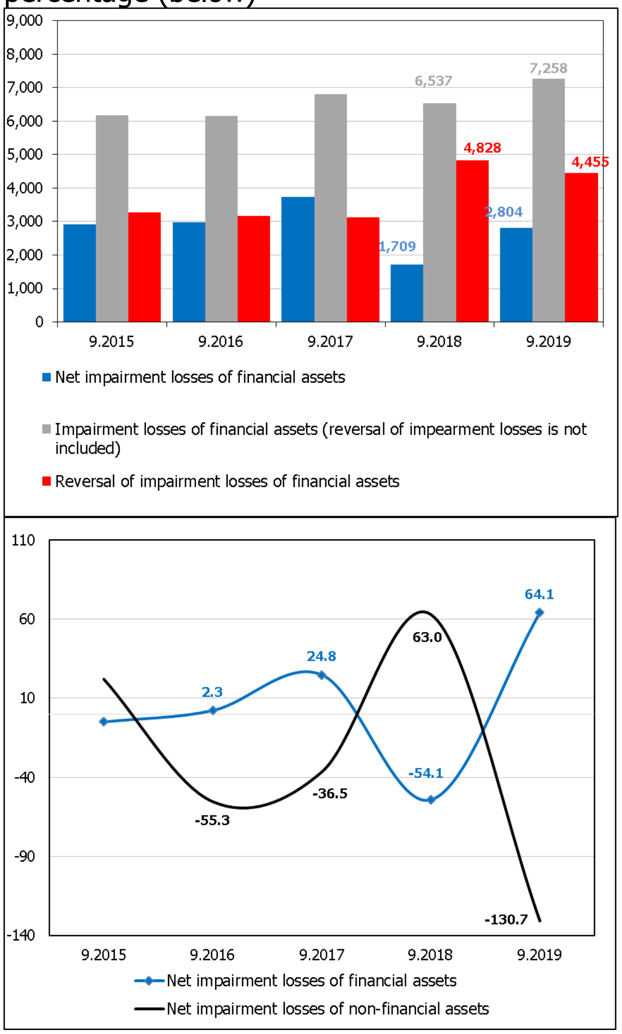
Source: National Bank, based on data submitted by banks.

The increase of operational costs by Denar 279 million or 3.4% amid a decrease of the interest income and other regular income leads to the **deterioration of the operational efficiency of the banking system** which is reflected in the level of the respective indicators. Only, the indicator that measures the coverage of operational costs in the total average assets[101] registers a moderate improvement, which arises from the faster growth of average assets (9.0%) compared to the growth of operational costs (3.4%) in the observed period. The increase of operational costs is mainly due to the costs for employees (by Denar 182 million or 5.0%) and general and administrative costs (by Denar 144 million or 5.1%). The total revenues from banks' regular operations[102] register a downward correction by Denar 1,008 million or 5.6%, with the biggest contribution being attributed to the decline of other regular income, as a reflection of the high comparative base in the first nine months of 2018[103].

The trend of the impairment of financial assets during the first nine months of 2019 was influenced by one-off events from the same period in 2018, when due to the collection of a high amount of non-performing loans from several banks, a high amount of impairment was released.

[101]Average assets are calculated as the average of the amount of assets on 30 September of the current year and 31 December of the previous year.
[102] The total revenues from regular operations include net interest income, net income from commissions and other regular income.
[103]In the first nine months of 2018, a capital gain was realized by the sale of capital investments and sale of foreclosed property by one bank which contributed to the positive growth of other regular income.

Chart 96
Amount of impairment costs of financial and non-financial assets, in millions of denars (above) and annual change of impairment costs of financial and non-financial assets, in percentage (below)



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

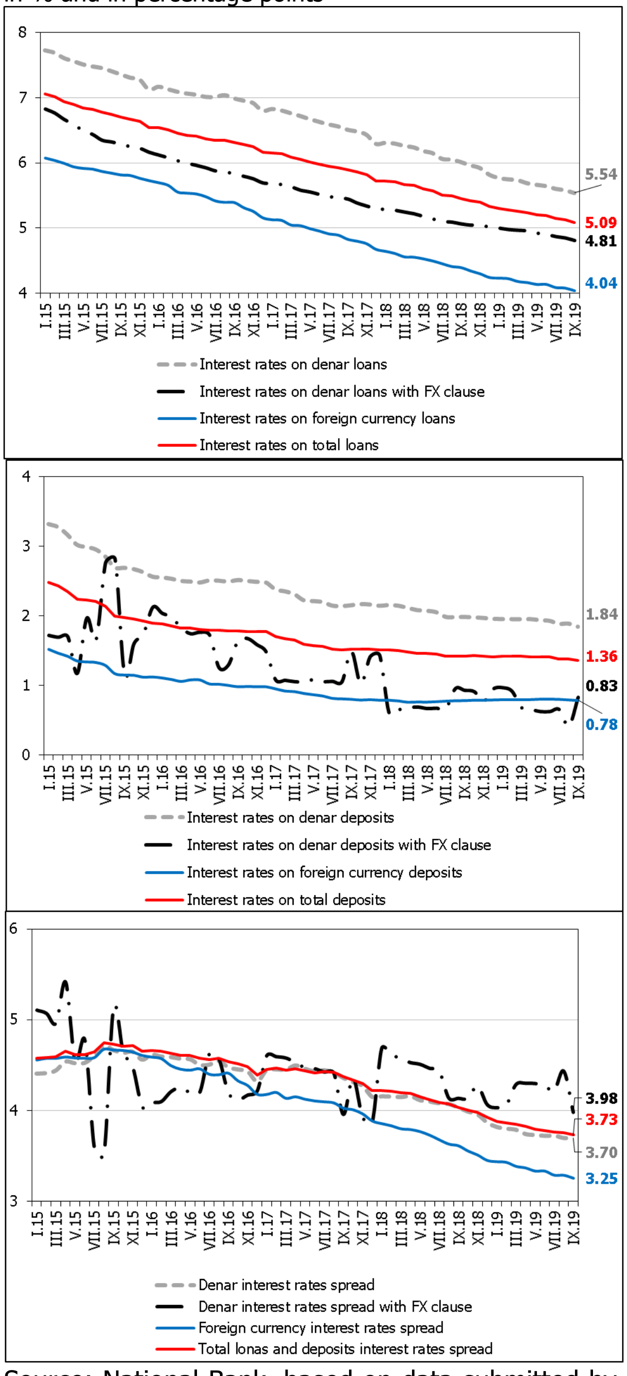
The exhaustion of the effects of these factors contributed to the increase in the net impairment of financial assets in the first nine months of 2019 by Denar 1,095 million, or 64.1%, compared to the same period last year. Excluding the one-off effects, the net impairment in financial assets registered a decrease of Denar 37 million or 1.3%.

On the other hand, net impairment costs of non-financial assets in the first nine months of 2019 decreased by a significant Denar 494 million or 130.7%. Namely, in the first nine months of 2019, the amount of released impairment of non-financial assets exceeds the amount of the new impairment of these assets. Such movements primarily arise from the higher new impairment of non-financial assets in the first three quarters of 2019 (compared to the same period in 2018), amid further sale of foreclosed property[104] and release of significant amounts of impairment for these assets.

Cumulatively, total impairment costs (of financial and non-financial assets) register a growth of Denar 601 million or 28.8%. If the effect of one-off events from the first quarter of 2018 is isolated, the total impairment costs would decrease by 16.5% or Denar 531 million.

[104]In the first nine months of 2019, the average foreclosed property decreased by 27.7% or by Denar 1,372.1 million compared to the same period in the previous year.

Chart 97
Active (left) and passive (right) interest rates
in % and in percentage points



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

2.2. Movements/tendencies in the interest rates and interest rate spread

The decreasing trend in banks' interest rates continues in the first nine months of 2019, and the correction is more pronounced in the interest rates on loans[105]. Thus, in September 2019, the total active interest rate of banks (on denar and foreign currency loans) decreased by 0.4 percentage points compared to September 2018 and amounted to 5.1%, and at the same time, the total passive interest rate (on denar and foreign currency loans) decreased by only 0.1 percentage points and mounted to 1.4%.[106] Analyzed by currency, the most pronounced decline compared to September 2018 was recorded in interest rates on denar loans and denar deposits by 0.5 and 0.014 percentage points, respectively. Amid further stronger decrease of active compared to passive interest rates, **at the end of September 2019, the gap between active and passive interest rates amounted to 3.7 percentage points and is reduced by 0.3 percentage points compared to the end of the third quarter in the previous year.**

[105]The analysis refers to the weighted interest rates of banks in accordance with the Interest Rate Statistics of the National Bank. The weighted interest rate is a quotient between the sum of products between the annual contractual interest rate and individual amounts

of each contractual credit/deposit party and the sum of individual amounts of each contractual credit/deposit party. Interest Rate Statistics, Methodological explanations, July 2018; more on https://www.nbrm.mk/content/statistika/Monetarna%20statistika/metodologija/Metodologija_MIR_07_2018_mak.pdf).

[106]The interest rate analysis shows that average weighted active and passive interest rate of banks in the first nine months of 2019 are lower by 0.4 and 0.1 percentage points, on an average, respectively, compared to the same period in 2018. The average weighted active interest rate, in the period January-September 2019 averaged 5.2% (5.6% in the first nine months of 2018), while the average weighted passive interest rate was 1.4% (1.5% in the first nine months of 2018). The average gap between active and passive interest rates for the period January-September 2019 was 3.8 percentage points and was reduced by 0.4 percentage points compared to the same period in the previous year amid a stronger decline of active in relation to passive interest rates.

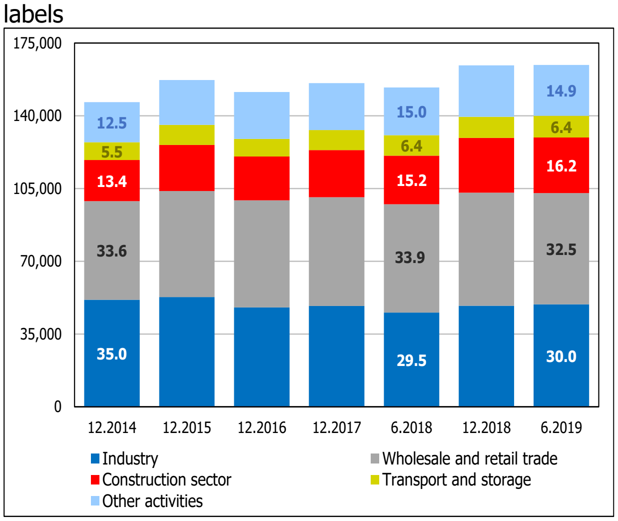
ANNEX 1

Corporate lending concentration level

The volume and seed of credit risk materialization are usually directly dependent on the concentration of loans according to some of their characteristics. This annex analyzes the concentration and the sectoral, maturity and currency structure of the corporate lending portfolio, and covers the period from 31 December 2014 to 30 June 2019.

The higher concentration is an inherent feature of the corporate loan portfolio, due to the usually lower granularity level[107] of corporate loans, but also due to the higher share of lending towards certain economic activities, which, in turn, is determined by the structure of domestic economy. Thus, the high and relatively stable concentration level of the credit support of the banks towards their clients from the trade activity, industry and construction sector points to the fact that the business performances of these clients are not only important for the overall economic activity of the country, but also for the quality of the banks' loan portfolio. The slightly higher concentration towards the largest corporate clients emphasizes the importance of maintaining the financial condition and solid discipline in the collection of these claims. In general, although the corporate loan concentration is declining, it is still relatively high.

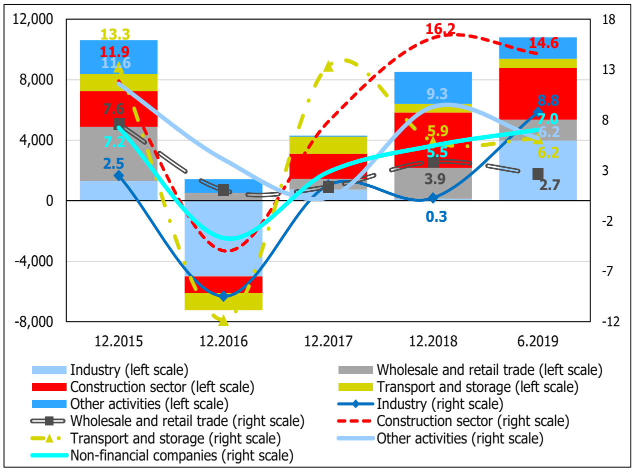
Chart 98
Structure of loans by individual activities of non-financial companies
amounts presented in the bars and percentages in the labels



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

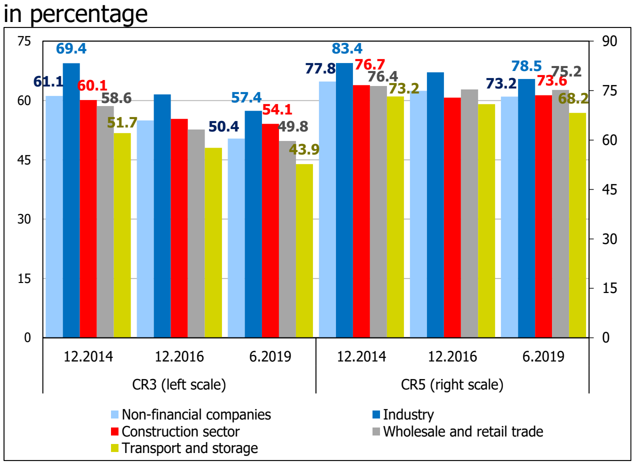
Around 80% of the total credit portfolio of non-financial companies falls under credit support of the banks granted to clients from industry, wholesale and retail trade and construction and real estate activities, whose share is maintained at a relatively stable level during the analyzed period. The share of loans of the industry sector in the total loans of non-financial companies registers a gradual decrease, from 35.0% on 31 December 2014 to 30.0% on 30 June 2019, which is mostly due to the mandatory write-offs of non-performing claims towards the clients of this activity, and the conducted sale of non-performing claims of one non-financial company in the first quarter of 2018. Simultaneously, the share of loans granted to the construction sector in total corporate lending registers a moderate growth from 13.4% on 31 December 2014 to 16.2% on 30 June 2019, given the stronger construction activity in the analyzed period in the segment of buildings which is mostly financed by banks. The share of loans of the trade activity in the total loans of non-financial companies is almost identical at the end of 2014 and on 30 June 2019 (32. %), whereby

Chart 99 Annual change of loans by individual activity of non-financial companies
amounts in millions of denars in %



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

Chart 100 Indicators of the concentration of loans of non-financial companies and by individual activity in three and five largest banks
in percentage



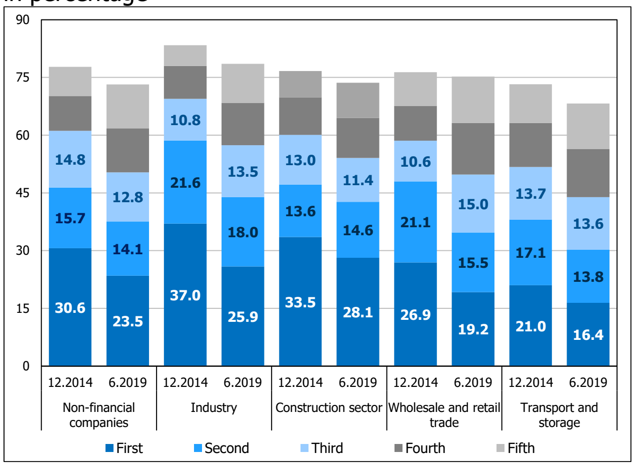
Source: Credit Registry of the National Bank, based on data submitted by banks.

in the analyzed period this activity on an average covers around one-third of the total corporate lending. Three activities with the highest share in the corporate lending are at the same time a significant driver of the growth of the total growth domestic product and have a high share in the total value added of the domestic economy[108], but also contribute in the performances and activities of the domestic corporate sector[109].

Several banks are crucial for the credit support of the corporate sector, although the concentration of lending to corporations, according to this aspect, decreased in the analyzed period, given the intensification of the competition by some medium-sized banks in the banking system, but also as a result to the change in the business model of several larger banks, from corporate lending to retail lending i.e. household sector. The CR3[110] indicator registered a pronounced decrease by over 10 percentage points (from 61.1% to 50.4%), while the CR5 indicator decreased by almost 5 percentage points (from 77.8% to 73.2%).), in the period 31 December 2014 - 30 June 2019, respectively. Hence, **the**

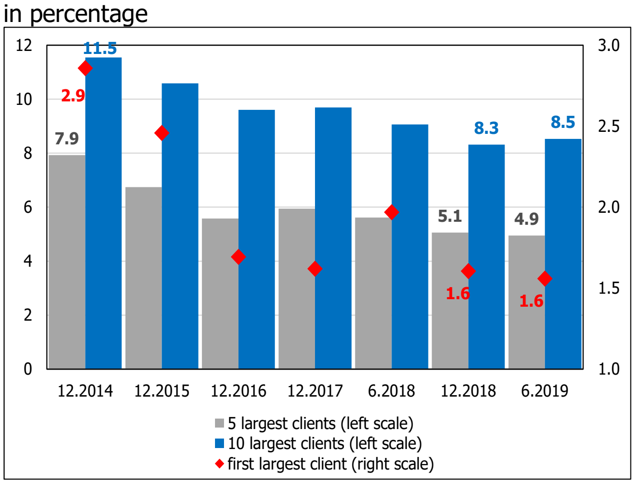
[107]Granularity is defined as the level to which a portfolio is divided, whereby the higher the granularity, the lower the concentration i.e. the portfolio is better diversified. Hence, the granularity of the credit risk exposure shows the extent to which it is allocated to certain clients and shows the concentration level through the distribution of lending to individual clients.
[108]In the analyzed period (2016-30 June 2019), each of these three activities, on an average, has a share of around 20% in total value added (according to current prices) of the domestic economy.
[109]More details regarding the added value by individual activity, their activities, operational and performance indicators, as well as the credit risk dynamics that domestic financial institutions undertake amid lending to this segment from the real sector, and thus the impact on the overall financial stability are given in the Report on the financial stability of the Republic of North Macedonia in 2018, in the section 2.5 Corporate sector, which is available in the following web address: https://www.nbrm.mk/content/Regulativa/%D0%A4%D0%A1%D0%A0_2018.pdf
[110]The indicator CR3 i.e. CR5 shows the share of loans of non-financial companies by individual economic activities of the three i.e. the five banks with the highest value of loans in the total amount of loans for a certain segment i.e. for the total corporate loan portfolio.

Chart 101
Concentration of loans of non-financial companies and by individual activity in five largest banks
in percentage



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

Chart 102
Concentration of loans of non-financial companies by client size*
in percentage



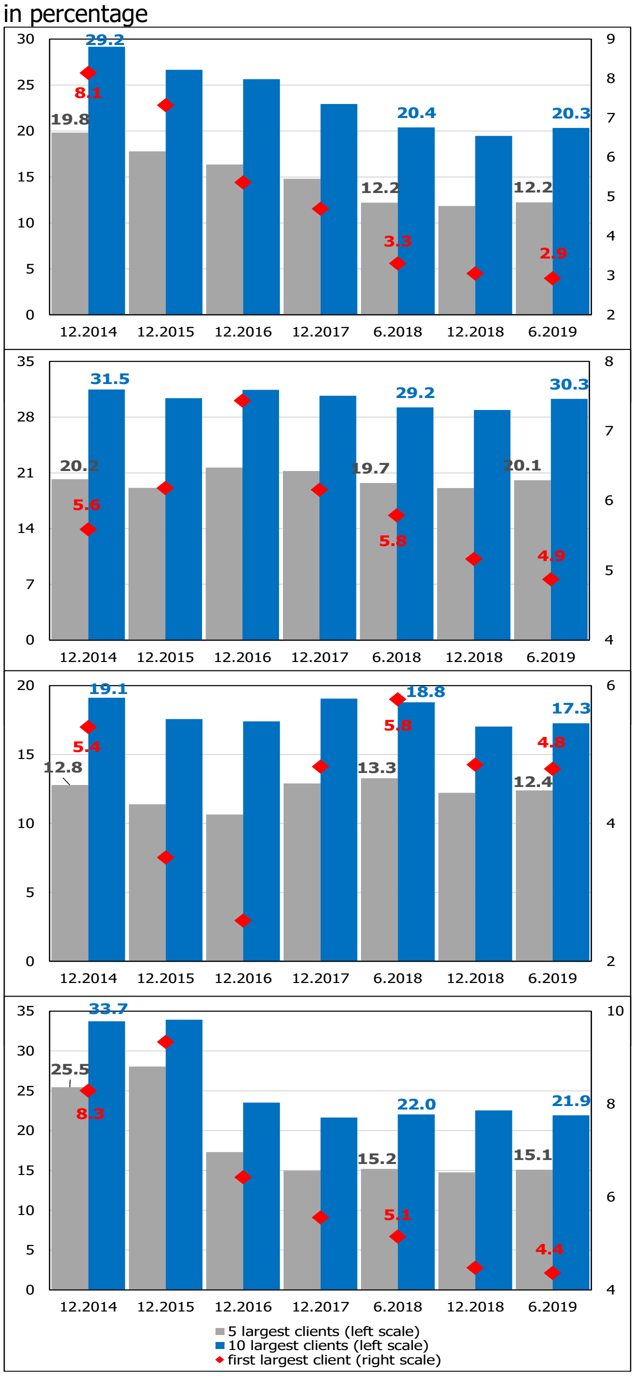
Source: Credit Registry of the National Bank, based on data submitted by banks.
*Note: Client size refers to the amount of total loans of the respective client (first ranked, top five and top ten highest ranked clients) at the level of the banking system.

concentration of corporate loans by individual bank decreases in the analyzed period, especially in three banks which have the largest market share in the corporate lending. The reduced concentration of corporate loans in five i.e. three largest banks is also related to the mandatory write-offs starting in 1 January 2016. Namely, on an average, around 90% and 80% of the write-offs of claims from non-financial companies (in the period 2016 - 30 June 2019) are concentrated in five and three largest banks in the system, respectively. We should also note the fact that the bank with the largest share in the credit support of non-financial companies recorded a reduced share of 7.2 percentage points (from 30.6% to 23.5%) in the analyzed period. According to the current level of corporate lending concentration indicators (on 30 June 2019), the concentration is highest in industry[111] and lowest in transport and storage[112].

There is still a high single name concentration. Loans granted to the ten, five and first largest client[113] in the segment of non-financial companies account for 8.5%, 4.9% and 1.6%, respectively, of the total loans in this sector. However, in the analyzed period (31 December 2015 - 30 June 2019), a decline is recorded in the concentration of the credit support of the banks to the ten and five largest non-financial companies with an identical intensity (by 3 percentage points, from 11.5 and 7.9, respectively at the end of 2014), amid simultaneous decline of the share of loans of the first largest clients by 1.3

[111]With values of the indicators CR3 and CR5 of 57.4% and 78.5%, respectively.
[112]With values of the indicators CR3 and CR5 of 43.9% and 68.2%, respectively.
[113]Amid determining the largest, the five and the ten largest clients of the corporations and individual activities are taken as the sum of all loans to individual client, at the banking system level. Thus, the loans granted to entities that are possibly affiliated are not taken into account.

Chart 103
Concentration of loans of industry, construction sector, trade activity, and transport and storage (in the above order, from top to bottom), by client size
in percentage



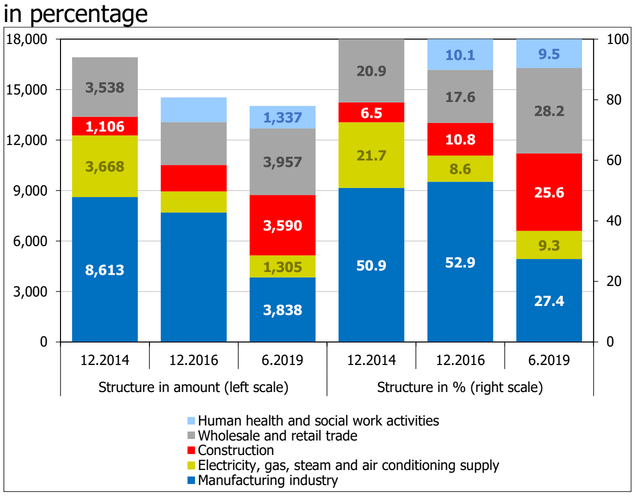
Source: Credit Registry of the National Bank, based on data submitted by banks.

percentage points (from 2.9% on 31 December 2014) in the total lending to the corporate sector.

In the analyzed period, the concentration to individual clients is regularly higher in the construction sector.

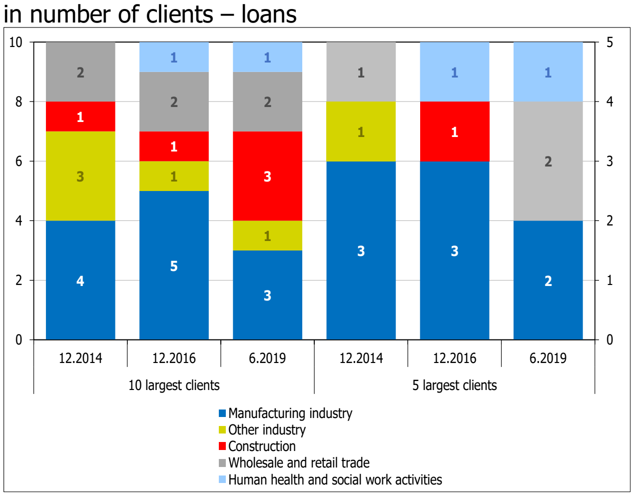
In the period from 2014 to the beginning of 2017, the largest borrower (among companies) at the banking system level is the same client from industry, namely from the branch production of metals, machinery and equipment. However, since the beginning of 2017, the position of the largest debtor at the level of the corporate sector has been taken over by an entity from trade.

Chart 104
Structure of 10 largest loans of non-financial companies by individual activity
in percentage



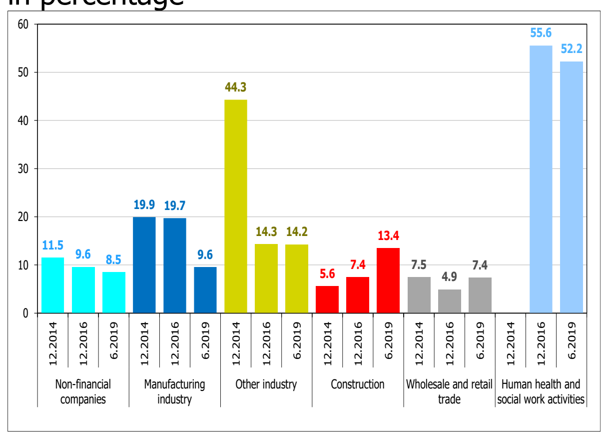
Source: Credit Registry of the National Bank, based on data submitted by banks.

Chart 9
Structure of 10 and 5 largest loans of non-financial companies by affiliation to a respective activity
in number of clients – loans



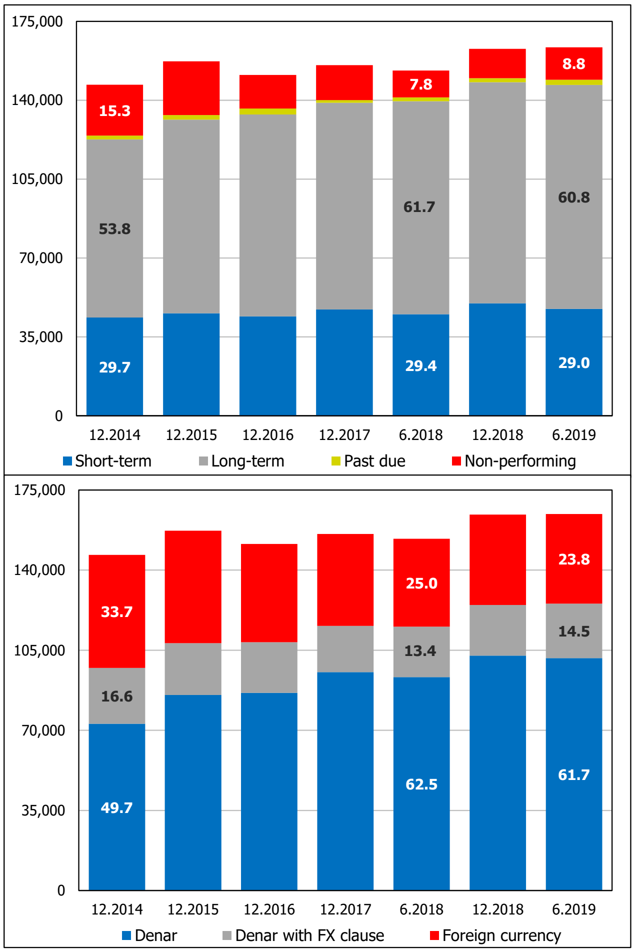
Source: Credit Registry of the National Bank, based on data submitted by banks.

Chart 8
Share of 10 largest loans of non-financial companies by individual activity in the total loans of the respective activity
in percentage



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

Chart 10
Maturity (above) and currency structure (below) of loans of non-financial companies
amounts presented in the bars and percentages in the labels



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

Analyzed by maturity and currency structure, the largest part of the debt of non-financial companies to the domestic banking system is long-term loans and denar loans. However, the share of short-term loans continues to be relatively high (average of around 30% in the analyzed period). In the analyzed period, there was an intensified currency transformation of lending to non-financial companies (including by individual activity) as a result of the growth of denar lending, which was also accompanied by a decline in loans with currency component. Thus, the share of denar loans in the corporate loan portfolio increased from 49.7% at the end of 2015, to 61.7% at the end of the second quarter of 2019.