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MONETARY POLICY TIGHTENING IN THE REPUBLIC OF NORTH MACEDONIA SEEN THROUGH THE FINANCING OF HOUSEHOLDS AND NON-FINANCIAL COMPANIES AND BANK PROFITABILITY

Abstract: These are difficult times for central bankers. The surge of global inflation in 2021 has caught many central banks by surprise.

This paper analyzes the implications of the effects of the conduct of monetary policy in the RN Macedonia on the financing conditions faced by households and non-financial companies compared to the profitability of other financial institutions.

The findings of the research show a stagnation in the borrowing of households and non-financial companies, as well as an increase in savings primarily as a result of caution. Furthermore, the research reveals that the rest of the financial institutions, despite such a situation and negative volume effect, record an increase in profitability. This is mainly due to the structure of the Macedonian banking system, where placements in treasury bills and deposits in NBRNM dominate, and the realized interest income from non-resident financial companies, where placements in foreign banks dominate, also has an impact.

The inflation is decreasing, but it is still at a high level and far from the target inflation, and the uncertainty from the external environment still exists. High inflation makes things worse for everyone, so it is necessary to assess the risks of it becoming embedded.

Keywords: Inflation; Interest Rates; Banks; Household; Firms

JEL Classification: E31; E43; G21; H31; H32

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Introduction

Decades of moderate price increases have suddenly come to an end through a unique combination of crises: the global pandemic, the energy crisis and the Russian invasion of Ukraine. The pandemic has driven higher prices for energy, metals and other globally traded commodities. The sharp increase in wholesale energy and commodity prices has increased not only energy and food inflation, but also – indirectly – core inflation of goods and services. The price increase was reinforced by the Russian invasion of Ukraine. The growth of these prices is an important source of the high level of consumer price inflation. High energy prices and other input costs created higher costs for businesses, which in turn increased selling prices.

High inflation adversely affects firms and households in a variety of ways, including by eroding real incomes and widening inequality.

In such challenging times, central banks have taken a series of measures, no matter how difficult they were, in order to ensure a reduction in inflation, that is, price stability, because the consequences if too high inflation took root would be much worse for everyone. They responded by significantly tightening their stance on monetary policy, which partly affects the real economy through its effects on financial institutions. This naturally constrained demand through increased borrowing costs and lower credit flows to the real economy. The negative impact on economic activity and growth is a standard feature of a tightening, but it still deserves close monitoring.

Some crisis effects – high inflation, disruptions in supply chains, higher trade barriers – can last much longer or intensify. That could cause macroeconomic instability around the world, especially in emerging markets.

The monetary policy tightening is conditioned by the need for further stabilization of inflation and inflation expectations on a more permanent basis. While financial conditions have already tightened significantly, the magnitude and timing of the impact on the real economy is more difficult to assess. Distributional effects can be expected to be modest.

In the following, we will consider how the measures of the National Bank of the Republic of North Macedonia affected households, non-financial companies and other financial institutions in the Republic of North Macedonia. The paper is structured as follows: in the first part, previous discussions on the topic are reviewed, in the second part, the measures of the NBRNM are analyzed, in the third part, the effects of the tight monetary policy on non-financial institutions and households are observed, in the fourth part, the impact of the decisions is analyzed of NBRSM on the profitability of banks, and finally, follow concluding observations.

1. Literature review

After a long period of low interest rates and low inflation, the global economy is entering a phase characterized by high inflation and high levels of public and private debt.

Monetary policy is a responsibility of the central bank. The primary responsibility of monetary policy is to contribute to nominal stability. Nominal stability is important for developments in the real economy and is the most valuable contribution that monetary policy can make to economic growth[2]. Both fiscal and monetary policy have played a role when an economic shock occurs. Recent research has shown that the stance of monetary policy can affect financial stability. The policy rate of the central bank has a direct impact on the credits supply by affecting the costs of bank refinancing[3]. The pandemic and war have brought new challenges to global central banks in the coming years[4].

High inflation caused an immediate reaction by central banks through an increase in interest rates. According to Fabio Panetta, we need to adapt our policies to the overlapping effects of shocks, to geopolitical developments, to the risk of financial amplification and to spillovers from other jurisdictions[5]. The remarkable recovery in demand and the changed dynamics of the commodity and labor markets contributed to the wrong estimates[6]. The tightening of monetary policy has materialized in financial terms, but its quantitative impact on the real economy is uncertain[7].

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[2] Gjedrem, S. (2001). Monetary policy - the importance of credibility and confidence. Annual National Meeting of the Association of Economists, Gausdal Retrieved June 11,2023. https://www.bis.org/review/r010207a.pdf

[3] Bofinger, P., Geißendörfer, L., Haas, T. & Mayer, F. (2023). How monetary policy affects bank lending and financial stability: A ‘credit creation theory of banking’ explanation. *Centre for Economic Policy Research (CEPR)*

[4] Gopinath, G. (2023). The pandemic and war have bred new challenges for global central banks in coming years. *Finance & Development*:*Crisis and monetary policy,* IMF

[5] Panetta, F. (2023, March). Global shocks, policy spillovers and geo-strategic risks: how to coordinate policies. SPEECH at The ECB and its Watchers XXIII Conference, Frankfurt am Main, Retrieved June 10, 2023. https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230322

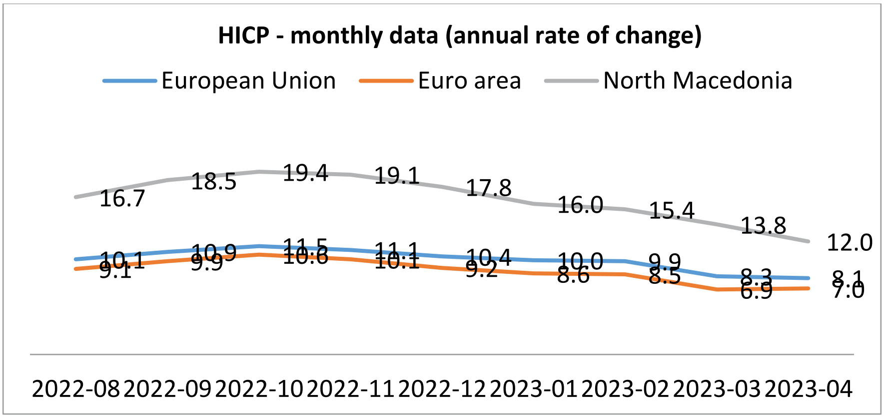
[6] Koch, C. & Noureldin, D. (2023). A remarkable demand recovery and changed dynamics in goods and labor markets contributed to misjudgments. *Finance & Development*: *New Directions for Monetary Policy,* IMF

[7] Economic Governance and EMU Scrutiny Unit (EGOV) (2023). The effects of high inflation and monetary tightening on the real economy. *Economic Governance and EMU Scrutiny Unit (EGOV),* Directorate-General for Internal Policies, PE 741.495

2. Monetary policy tightening, NBRNM measures

In 2022, inflation reached historically high levels in almost all economies, and especially in less developed economies. World inflation accelerated to nearly 9%, which is more than double the average of the previous two decades (3.9%). In the region of Central and Southeastern Europe, the average inflation reached 13.3%, and in our country it reached 14.2%, against 9% in the European Union[8].

Figure 1. Inflation rate movements in RN Macedonia, Eurozone and EU in 2022



Source: Eurostat, HICP - monthly data (annual rate of change)

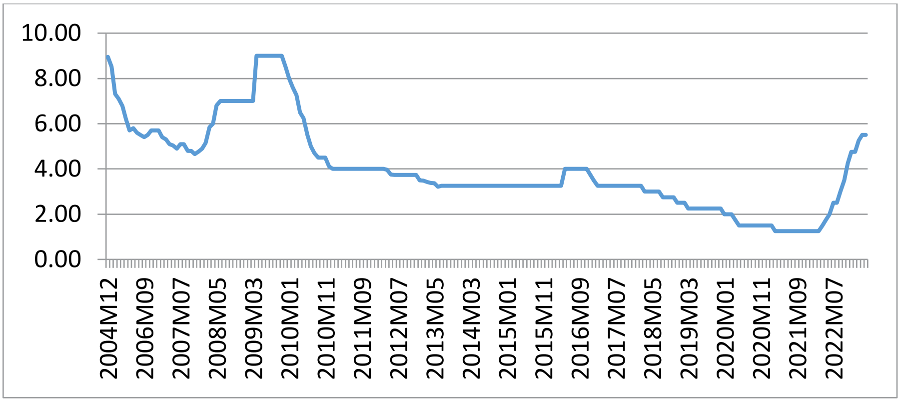
In response to the large increase in inflation, central banks have taken various measures to reduce it. The results of the measures taken for different economies had different effects.

After more than a decade of extremely favorable monetary policy to deal with the "low prices" conundrum, suddenly the NBRNM changed gears in order to deal with multi-decade high inflation. In response to the large increase in inflation from 2021, the NBRNM from the end of 2021 began active liquidity management through interventions in the foreign exchange market, and from April 2022 through an increase in interest rates. Namely, during this period, the basic interest rate was increased several times, up to the level of 6%.

[8] NBRNM Annual Report for 2022, Retrieved July 10, 2023. https://www.nbrm.mk

At the same time, interest rates on overnight and seven-day deposits increased, up to the level of 3.40% and 3.45%, respectively. The monetary policy was also strengthened by the several previously made changes to the Bank's reserve requirement ratio instrument, through which the denarization process (growth of savings in denars) and green financing is encouraged, all for the purpose of supporting stability in the economy. Monetary measures were also strengthened by additional systemic measures, i.e. the introduction of a countercyclical protective layer of capital, as well as macroprudential measures related to the quality of credit demand, in order to strengthen the resilience of the banking system (NBRNM Annual Report for 2022).

Figure 2. Interest rate on Central Bank bills



Source: NBRNM, Deposits and Lending Interest Rates of the NBRNM

The monetary policy tightening is conditioned by the need for further stabilization of inflation and inflation expectations on a more permanent basis, as well as the intention to return inflation to the medium-term target of 2 percent. As a result of the measures taken, the monetary policy, together with the measures of other policy makers, as well as the stabilization of the prices of primary products, a gradual slowdown of the total inflation has already been observed since November 2022, and the base inflation has been on a downward path since February.

According to the latest data taken from trading economics[9], the inflation rate in Macedonia in June 2023 is 9.30 (May 11.30), and the base inflation is 9.30 (May 11.22); the inflation rate in the European Union in June 2023 is 7.10 (May 8.10), and the base inflation is 6.13 (May 6.45); the inflation rate in the Eurozone in June 2023 is 5.50 (May 6.10), and the base inflation is 5.40 (May 5.30).

[9] Trading economics indicators, Retrieved July 09, 2023. https://tradingeconomics.com/

Inflation is decreasing, but it is still at a high level and far from the target inflation, and the uncertainty from the external environment still exists. The economy's supply capacity is set to recover from pandemic-related damage and a war-enhanced energy shock, with monetary policy tightening ensuring demand is better matched to supply.

3. Monetary policy tightening and the financing of households and non-financial companies

It is strongly in the interests of the enterprise sector and households that inflation is low and stable over the medium term, since high and volatile inflation disrupts business operations by making it more difficult to execute basic tasks, including the setting of prices, the management of costs and the development of medium-term financial and operational plans[10].

During this tightening cycle, households and businesses not only have to contend with an inflationary shock, but also with the impact of an upward shift in interest rates by banks.

Higher interest rates affect households and businesses through multiple channels. At the macroeconomic level, tight monetary policy reduces consumption and investment, reducing demand for consumer and business products. All else being equal, it also causes the currency to appreciate, which is exporters challenge.

There are basically three ways of financing non-financial companies, through: undistributed (accumulated) profits, lending (debt capital) or equity capital. Unlike non-financial companies, household financing is through: wages and other sources, savings or credit. Households can allocate their assets - income generated from wages and other sources - to financial assets such as bank deposits, stocks and other securities, or to non-financial assets such as houses, land and other fixed assets.

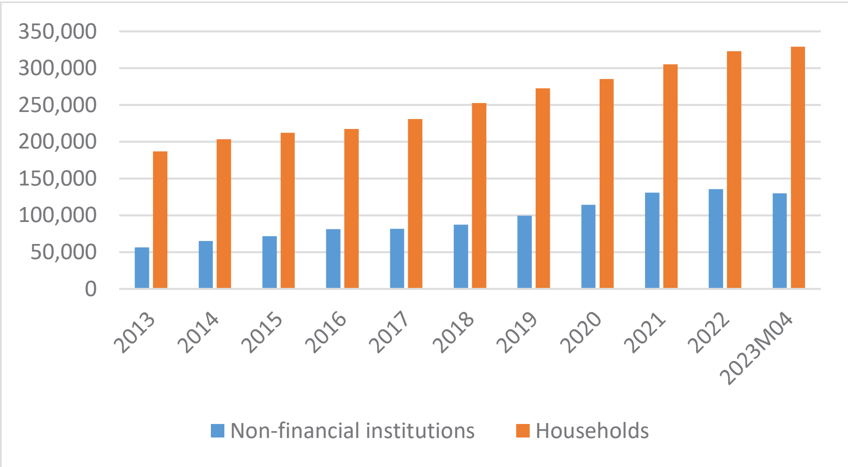
It is clear that stricter financing conditions will have a greater impact on firms that have a high dependence on external sources of financing, as well as on households that are inclined to credit.

[10] Lane, P.R (2023, April). Monetary policy tightening and the financing of firms. SPEECH at the Enterprise Ireland Summit 2023, Dublin, Retrieved June 10, 2023. https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230419

In terms of internal financing, higher interest rates make it more attractive for firms to place retained earnings in deposits or interest-bearing financial instruments, rather than using accumulated funds to finance investments and working capital.

Higher interest rates make it more attractive for households to save for investment purposes, or for households with higher incomes, who have a relatively low propensity to consume. In addition, the uncertain environment influences households to save out of caution. This was the case during the recent crises: the Covid-19 pandemic, the energy crisis and the Russian invasion of Ukraine,when the substantial stock of excess savings was created (Fig.3.1).

Figure 3. Non-financial institutions (corporate sector) and households (individuals and self-employed persons) deposits, in millions of denars

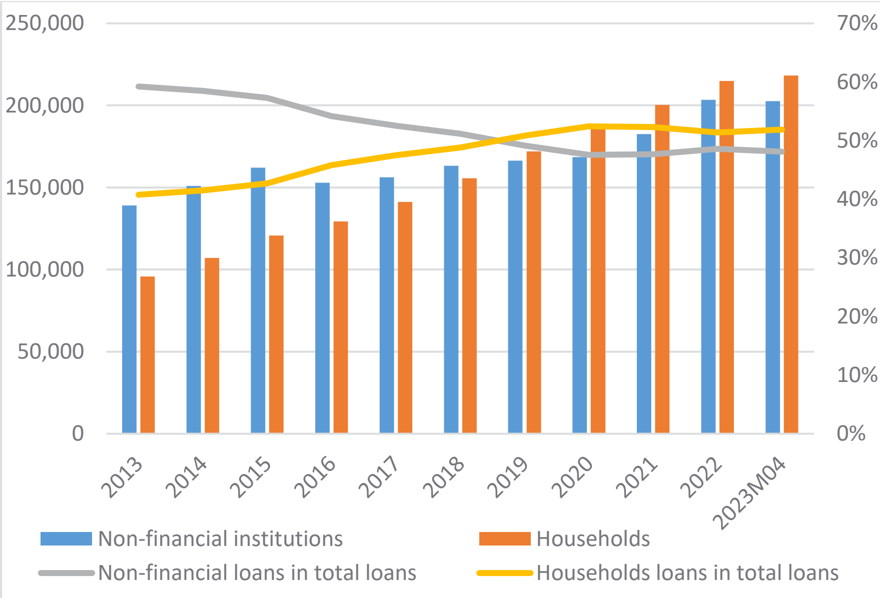


Source: NBRNM, Statistics, Monetary and Interest Rate Statistics, Balance Sheets and Reviews of Depository Institutions

The banks balance sheets showed an increase in deposits. The level of savings has increased significantly in the country. Households are a surplus item for the banking sector, as the level of savings significantly exceeds loans. Changes in the rate of growth of deposits in the "household" segment are influenced by several factors, such as: inflationary pressures, uncertainty, inflows based on private transfers, the trend of financial markets (i.e. stock exchanges); which directly affect the disposable income of households, and thus increase or decrease the propensity to save.

From a macro-economic viewpoint, households are typically net lenders, i.e. they have a positive net lending/net borrowing, and thus add each year to their net financial wealth[11].

Figure 4. Total loans approved to non-financial institutions and the household sector, and their share in total loans approved by deposit institutions (banks and savings banks)

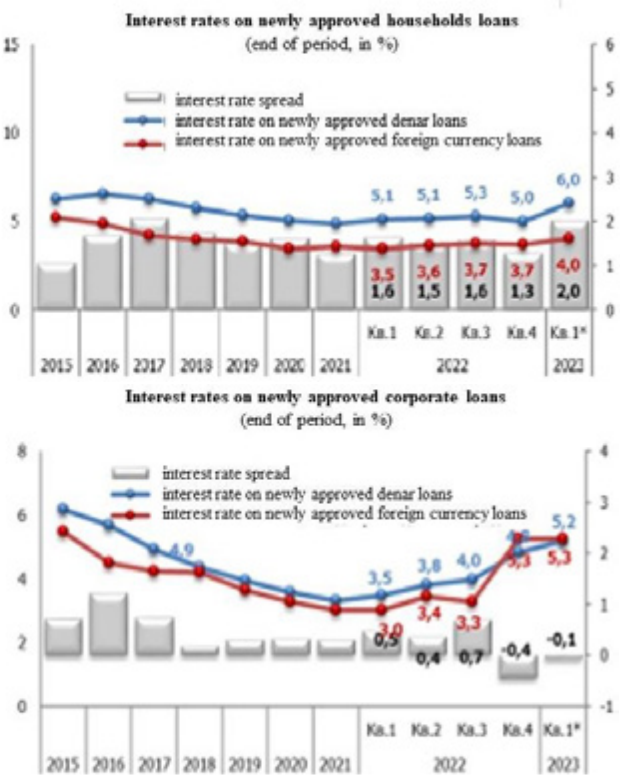


Source: NBRNM, Statistics, Monetary and Interest Rate Statistics, Balance Sheets and Reviews of Depository Institutions

The costs of firms and households financing from banks have started to rise up in the second half of 2022, although the NBRNM started monetary policy tightening at the end of 2021. The strongest and fastest pace is reached at the beginning of 2023:

[11] Van de Ven, P. & Fano, D (2017). *Understanding Financial Accounts*. OECD

Figure 5. Interest rates on newly approved loans (denar and foreign currency) to households and firms, in % per year



Source: NBRNM, Statistics, Monetary and interest rate statistics, Interest rate statistics

Increased bank funding costs have been significantly passed on to lending rates applied to new loans. This reflects the fact that banks price new loans based on their own funding costs plus a margin, depending on, among other factors, the borrower's risk characteristics. In addition, higher interest rates are usually associated with falling asset prices. This reduces the value of the collateral, leading to a further increase in interest rates upwards, over and above those associated with higher bank funding costs. In addition, banks pass on higher funding costs to outstanding debt when variable rate debt is rerated.

Banks can also limit the loans supply by applying stricter credit approval criteria.

This is the sharpest tightening of credit standards since the crisis of 2009. Among the key factors driving this tightening were the increases in risks associated with the reduction of the economic outlook during 2022 and the deterioration of the creditworthiness of borrowers, as well as the lower risk tolerance by the banks.

As tighter monetary policy increases banks' funding costs and negatively affects their balance sheets, it also reduces their willingness to lend.

Historically, such a tightening of credit standards is usually followed by a reduction in lending a few quarters later. And indeed, in the case of the RNM banking network, bank loans to firms are slowing down from the third quarter of 2022 (Tab. 3.1 and Tab. 3.2). **The first quarter of 2023 the total flow of bank loans for companies in RN Macedonia is negative, which shows that more loans are due or returned than are approved.**

Table 1. Loans to households

	2021				2022				2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
quarterly changes, во %									
Total loans to households	1,6	2,8	1,7	1,6	1,6	2,6	1,5	1,4	1,2
contribution to the quarterly change in total loans in p.p.									
Denar loans	1,0	1,3	1,0	0,9	1,0	1,0	0,5	0,1	0,3
Foreign currency loans	0,5	1,4	0,6	0,6	0,6	1,3	1,0	1,3	0,8
Short-term loans	0,2	0,1	0,0	0,2	0,2	0,1	0,0	-0,2	0,2
Long-term loans	1,1	2,7	1,6	2,0	1,3	2,4	1,5	1,9	1,0

Source: NBRNM

Table 2. Loans to firms

	2021				2022				2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
quarterly changes, во %									
Total loans to firms	0,8	2,3	0,6	4,9	3,7	2,8	0,9	3,9	-1,3
contribution to the quarterly change in total loans in p.p.									
Denar loans	0,2	2,3	0,3	4,1	1,7	0,9	-1,0	2,4	-1,1
Foreign currency loans	0,6	0,1	0,2	0,8	2,0	1,8	1,8	1,5	-0,2
Short-term loans	0,9	1,1	-0,7	1,9	2,7	0,9	-0,3	1,3	-1,4
Long-term loans	-0,1	1,1	1,5	3,3	1,3	1,5	1,0	3,1	0,2

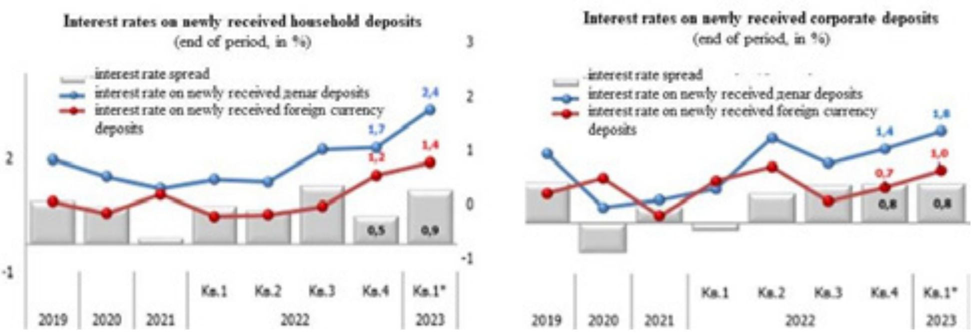
Source: NBRNM

The monetary policy tightening had a direct impact on the level of lending to the sectors. Quarterly changes in lending indicate reduced growth rates of newly approved loans, and even negative rates in the corporate sector (Tab. 3.1 and Tab. 3.2).

As lending costs rose and banks tightened approval requirements, bank lending slowed. Bank loans as a share of GDP are declining (2021: 54%; 2022: 53%; 2023M04: 47%), and market expectations are for further declines this year. There are several factors that drive this. First, the current tightening occurred in response to negative aggregate supply shocks. Second, the current contraction in credit supply is stronger than usual, mainly reflecting increased risk perceptions on the banking side. Third, the pace and size of the current rate hikes are remarkable. This could mean greater sensitivity of borrowing to rising rates at the current moment.

At the beginning of 2023, banks' interest rates increased further, reflecting the increase in the reference interest rate of the NBRNM. Bank loans to firms and households also eased further amid higher interest rates, weaker demand and tighter credit standards.

Figure 6. Interest rates on newly received deposits (denar and foreign currency) of households and firms, in % per year



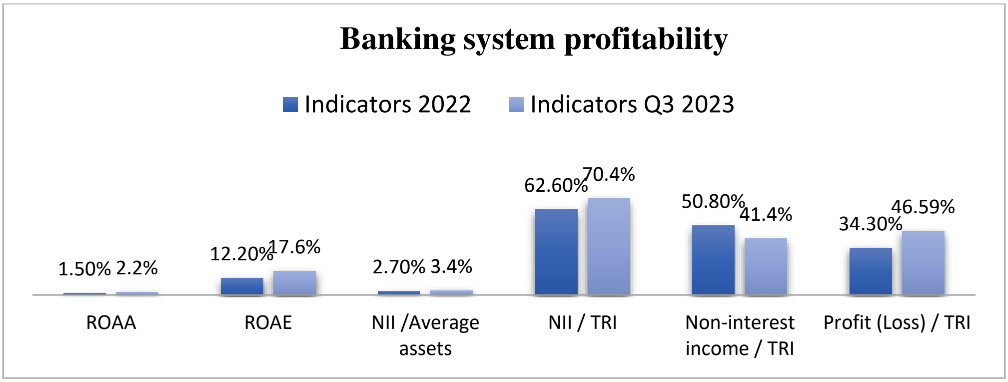
Source: NBRNM, Statistics, Monetary and interest rate statistics, Interest rate statistics

Rates on newly received deposits rose from 1.34% in December 2022 to 2.04% in March 2023.

4. The impact of the key interest rates decisions of NBRNM on banks profitability

The positive impact of bank interest margins has been transferred to a high share of banks in the Republic of North Macedonia that report the positive impact of the increase in NBRNM rates on their net interest income in the past period.

Figure 7. Data and indicators for the banking system of the RN Macedonia



Source: NBRNM, Supervision, Data and indicators for the banking system of the Republic of North Macedonia

Legend of abbreviations:
ROAA - Return on average assets
ROAE - Return on Average Equity
NII - Net interest income
TRI - Total regular income

Net interest income, which represents a basic component in the formation of total operating income, recorded an increase in the first quarter of 2023 of 42.90% compared to the same period last year, which is due to the continuous increase in the basic interest rate of the National bank and on the interest rates of the foreign financial markets, combined with the structure of the banks' assets.

Table 3. Indicators of the profitability of the banking sector

Indicators	Banking sector					
	2018	**2019**	**2020**	**2021**	**2022**	**Q3 2023**
Return on average assets (ROAA)	1,73%	1,27%	1,30%	1,50%	1,50%	2,2%
Return on Average Equity (ROAE)	16,00%	11,66%	11,30%	12,90%	12,20%	17,6%
Operating expenses / Total regular income (Cost-to-income)	46,27%	50,09%	48,20%	47,40%	47,80%	43,2%
Employee expenses / Total regular income	20,52%	22,33%	21,40%	20,50%	20,40%	18,0%
Employee expenses / Operating expenses	44,35%	44,58%	44,50%	43,20%	42,60%	41,6%
Value adjustment for financial and non-financial assets / Net interest income	24,72%	27,19%	30,10%	24,60%	23,90%	14,1%
Net Interest Income /Average Assets	3,19%	2,85%	2,70%	2,60%	2,70%	3,4%
Net interest income /Total regular income	62,88%	64,62%	62,60%	59,40%	62,60%	70,4%
Net Interest Income / Operating Expenses	136,2%	129,1%	129,8%	125,3%	131,0%	162,9%
Non-interest income/Total regular income	45,82%	46,25%	47,60%	52,90%	50,80%	41,4%
Profit (loss) from operations / Total regular income	34,15%	28,77%	30,10%	34,70%	34,30%	46.59%

Source: NBRNM

The increase in banks' net interest income (net percentage of 3.4% in the first quarter of 2023 compared to 2.7% in 2022), mainly led to a positive effect on their overall profitability (net percentage of 46.59% in first quarter of 2023 compared to 34.30% in 2022).

The structure of the RNM banking system is dominated by placements in treasury bills and deposits in the NBRNM, while increases in the interest rates of the NBRNM have a positive and significant impact on the increase in interest income earned by financial companies. In addition, interest income from non-resident financial companies is also increasing, where placements in foreign banks dominate.

This is because in the first quarter of last year the Euribor interest rate was around 0% or negative, and this year it reached around 3.5% to 4%.

On treasury bills, interest rates rose from 1.25% to the latest 5.75%, and on treasury bills from 0.40% to 3.70%, or 5.25% on two-year government bonds, up to 7.14 % at the last Eurobond.

At the same time, the impact of NBRNM interest rate decisions on volume was negative, consistent with a slowdown in credit growth as noted elsewhere in the survey.

As a result of such movements, the realized profit of the banking system in the first quarter of 2023 reached 3.8 billion denars, which represents an increase of 44.29% compared to the same period in 2022 (2.6 billion denars).

This direct evidence from banks on the impact of NBRNM rate increases on their financial condition is consistent with changes in the components of bank profitability through the fourth quarter of 2022. Indicators up to the first quarter of 2023 suggest a continuation of these developments, i.e. a similar positive impact of NBRNM interest rate decisions on their net interest margins, which will support their net interest income and overall profitability despite the negative volume effect.

Conclusion

We are still going through a series of global shocks that are disrupting economies around the world. In just three years we have seen a pandemic, severe supply chain disruptions, war, an energy crisis and most recently tensions in the banking markets. The rising prices were a surprise from the perspective of pre-crisis policies, especially for advanced economies. Most economists missed the rise in inflation

There are no simple solutions to these complex problems, so central banks have taken a series of measures. The response of the Central Bank of RN Macedonia in efforts to reduce inflation was the same as central banks around the world, tightening monetary policies through the increase of interest rates, hence an indirect impact on the real economy. Tight monetary policy reduced consumption and investment, reducing demand for consumer and business products. Higher interest rates were a necessary step in transferring financing conditions to firms and households.

In such conditions, banks enjoy increased income due to increased interest rates and cheap deposits. The first quarter of 2023 was an exceptional quarter for the banking sector, with record revenue growth.

It is important to note that with the tightening of the monetary policy, inflation is decreasing, but it is still at a high level and far from the target inflation, and the uncertainty from the external environment still exists. The economy's supply-side capacity is set to recover from pandemic-related damage and a war-enhanced energy shock, with monetary policy tightening ensuring demand is better matched to supply.

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