Periodical Part

Financial stability report / Central Bank of Bosnia and Herzegovina. 2023

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Financial Stability Report 2023

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Financial Stability Report 2023

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ES	Spain
FR	France
GR	Greece
HR	Croatia
IE	Ireland
IT	Italy
PT	Portugal
SI	Slovenia
SK	Slovakia
TR	Turkiye

Abbreviations

BARS	Banking Agency of RS
GDP	Gross domestic product
BH	Bosnia and Herzegovina
BHAS	BH Agency for Statistics
BoE	Bank of England
BoJ	Bank of Japan
BLSE	Banja Luka Stock Exchange
CAC 40	Cotation Assistée en Continu (French stock exchange index)
CAR	Capital adequacy ratio
CBBH	Central Bank of Bosnia and Herzegovina
CET 1	Common Equity Tier 1
CHF	Swiss franc
CPI	Consumer Price Index
CRC	Central Registry of Credits
DAX	Deutscher Aktien Index (Index at stock exchange in Frankfurt)
DIA	Deposit Insurance Agency
EBA	European Banking Authority
ECB	European Central Bank
EU	European Union
EUR	Euro
FBA	Banking Agency of FBH
FBH	Federation of BH
FED	Federal Reserve System
FTSE	Financial Times Stock Exchange
GBP	Great Britain pound
HHI	Herfindahl–Hirschman Indeks
IMF	International Monetary Fund
KM	Convertible mark
MCO	Microcredit organizations
MFT of BH	Ministry of Finance and Treasury of Bosnia and Herzegovina
NPL	Nonperforming loans
OPEC	Organization of the Petroleum Exporting Countries
ROAA	Return on Average Assets
ROAE	Return on Average Equity
RS	Republika Srpska
RTGS	Real Time Gross Settlement
RRFC	Reference rate for average weighted banks' funding cost
S&P	Standard & Poor's
SASE	Sarajevo Stock Exchange
SRTA	Single Registry of Transactions Accounts
USA	United States of America
USD	Unites States dollar
WEO	World Economic Outlook
WTI	West Texas Intermediate
WTO	World Trade Organization

INTRODUCTION

The CBBH understands financial stability as a situation in which a financial system can absorb shocks without any significant disturbances in its current and future operations and whose functioning does not have negative effects on the economy.

The CBBH's authority to monitor the financial system stability derives indirectly from the Law on the CBBH. The CBBH plays an active role in the development and implementation of the policy of stability and sustainable economic growth of BH, through ensuring the stability of the domestic currency and overall financial and economic stability in the country. One of the CBBH's basic tasks is to establish and maintain the appropriate payment and settlement systems as a part of financial infrastructure. The CBBH contributes to the preservation of financial stability through its authority established by law to coordinate the activities of the Entities' Banking Agencies. In accordance with the decision of the Governing Board, the CBBH participates in the work of international organisations aimed at consolidating financial and economic stability through international monetary cooperation. The CBBH activities in the field of monitoring the financial system stability also include specialised communication with relevant international and domestic institutions, which ensures the continuity of the process of monitoring systemic risks. CBBH contributes to the preservation of the financial stability through its membership in the Standing Committee for Financial Stability of BH.

By publishing the Financial Stability Report, the CBBH strives to contribute to financial stability in BH through:

- Improving understanding and encouraging dialogue about risks for financial intermediaries in the macroeconomic environment;
- Warning financial institutions and other market participants about the possible collective impact of their individual actions;
- Creating consensus on financial stability and improving the financial infrastructure.

Although the focus of this report is on the events of 2023, its scope has been extended to include the most important events from the first half of 2024, in accordance with the available data at the time of preparing this document. The Financial Stability Report for 2023 is organised by chapters as it follows. The Summary highlights the most important risks to the financial system stability. The first Chapter presents the main trends and risks from the international environment. As part of this Chapter, the main risks from the EU and the euro area are highlighted, and their effects on the banking sector and the real economy of this geographical area are described, with a focus on risks that can have an impact on the banking sector and the real economy of BH. The second Chapter provides an overview of trends and potential risks from the domestic environment that are reflected in the functioning of the BH financial system, including an overview of the fiscal sector main trends and risks. The third Chapter illustrates the effects of the risks identified in the previous Chapters on claims on households. The fourth Chapter focuses on the effects of identified risks on the sector of legal entities. In the fifth Chapter, the effects of risk on the financial sector stability are assessed, with a focus on the banking sector. The sixth Chapter illustrates the basic trends in financial infrastructure: payment systems and regulatory framework. The Financial Stability Report for 2023 contains six text boxes: Assessment of the main macro-financial risks to financial stability, Real estate market, Impact of introducing carbon fee on the operations of companies and the economy in BH, Stress tests of solvency and liquidity and Identification and management of climate risks in financial sector.

Finally, it should be emphasised that this Report deals exclusively with matters of importance for systemic risk because, in accordance with the laws in effect in BH, the supervision of the operations of financial intermediaries is to be performed by the competent financial sector supervisors. Its main goal is to indicate the risks coming from the financial system, as well as the macroeconomic environment, and assess the system's ability to absorb these shocks.

SUMMARY

The basic features of the global economy in 2023 were the following: poor economic growth, continuing high inflation, continued implementation of restrictive monetary policy by the leading central banks and additional tightening of funding terms; increase of geopolitical risks and polarisation of the relations of leading global economies bringing about uncertainty in international economic trends. The global economic recovery in 2023 has been slow and unequal, with significant differences among countries. While the USA economy was more resilient than expected, recording a personal consumption growth, the euro area economic growth was stagnating, particularly due to weaknesses in consumption and foreign trade. Inflation pressures were weakening gradually, with inflation staying at a high level, resulting in additional increases of the reference interest rates by the FED and the ECB. The euro area banking sector recorded high profitability, strengthened capital reserves, while credit risk remained restricted despite a number of challenges in the previous years: oscillations in economic activities after the beginning of the pandemic, increase of geopolitical risks and inflation pressures accompanied by strong monetary policy tightening. In the high inflation and growing interest rate environment, net interest margins were growing due to a slower growth of deposit interest rates compared to lending rates due to high liquidity and the time need for earlier term deposits to mature. At the same time, NPLs remained stable as companies and households managed to cope with higher debt servicing costs due to increasing profit margins and very resilient labour market in circumstances of slow economic growth. However, banking sector risks remained increased. Growing deposit rates started to make pressure on bank margins, with credit risk increase to be expected at the same time despite current favourable trends in the credit portfolio quality, having in mind a higher level of loans for which the risk after the initial recognition significantly increased. Additionally, a decline of real estate prices could be an additional cost for banks in case of credit risk materialisation. The risks from the local macroeconomic environment decreased due to considerable weakening of inflation pressures, decrease of unemployment rate, growth of nominal and real net wages, decrease of foreign debt and slightly favourable balance of payments position. Activities in real estate market stayed generally strong during 2023, with the same trend to be expected in 2024. However, despite the improvement of these macroeconomic indicators, economic activity increased modestly. General government sector saw an increase of fiscal deficit, but the share of the total public debt in GDP decreased, the fiscal sustainability indicators still showing a low level of financial stability risk arising from the government sector.

Increased household propensity to consume due to lower inflation pressures and growth of real wages brought about an increased demand for loans and increased debt of households, particularly in the second half of 2023. Households continued to borrow most from commercial banks, with the increase of debt seen in the categories of general consumption loans and housing loans. The downward trend of non-performing loans in the total loans of household sector continued, however, a part of households faced a problem in regular servicing of liabilities, which is reflected in the increase of loans at credit risk level 2 in the category of housing loans. Households were inclined to borrow at fixed interest rates, thus reducing the risk of increase of liabilities due to the interest rate growth to the minimum. Deposited recorded growth, but it was mainly generated by the growth of amounts of holdings in transaction accounts, while only short-term deposits increased in the category of term-deposits.

The total debt of the sector of non-financial companies towards local financial intermediaries recorded a stronger growth, while banks extended loans to companies at only slightly higher interest rates compared to the previous year. At the same time, the growth of companies' foreign debt continued, increasing their exposure to risks from international markets, which could lead to disturbances or sudden interruptions in funding. Operating income and capitalisation of non-financial companies, as indicators of stability of operations, showed that companies successfully mitigated risks arising from weak domestic and international environment. Servicing of the existing liabilities was regular, which is reflected in a decline of the level of non-performing claims in banks and capability to borrow additionally. In the following period, key operating risks for companies include continued weakening of foreign demand, tightening of financing conditions, and the still present inflation pressures, while the introduction of carbon fee for products exported to the EU will be an additional challenge for export-oriented companies.

Under the impact of increasing profitability, continued improvement of asset quality, high liquidity and good capitalisation, overall assessment of stability indicators in 2023 was improved compared to the previous year. A stronger growth of lending led to a slight decrease of negative gap of loans to private sector to GDP ratio, however, financial cycle indicators showed lending to be still in the negative stage of the cycle. Banking sector was not faced with a significant pressure of increasing funding costs as it is predominantly financed from short- term residents' deposits, so the increases of both lending and deposit interest rates remained limited. Yet, reference rates of average weighted funding costs in BH show gradual deviation in the amount of costs on currency basis taking place, specifically, the growth of interest paid by banks on EUR deposits.

In the period ahead, bank profitability could be impacted by deterioration of asset quality related to weak recovery of economic activity and pressure on the growth of funding costs. Yet, sound capital positions and high liquidity of banking sector leave sufficient space for banks to absorb risks, which is also supported by the results of the conducted stress tests indicating that the banking sector is able to mitigate very strong macroeconomic shocks and significant liquidity outflows.

The Central Bank of BH in 2023 performed its legal obligation of maintaining the appropriate payment systems. Payment operations were carried out smoothly through giro clearing and real time gross settlement (RTGS) systems. The Central Registry of Credits (CRC) and Single Registry of Business Entities' Accounts (SRBEA) were maintained, while the realisation of transactions through the international clearing of payments with foreign countries was carried out smoothly. Finally, several key activities undertaken with the goal to approach or harmonise with the EU standards which are related to banking sector, should be stressed, such as: starting the project of payment systems modernisation with purpose of joining the Single Euro Payments Area -SEPA where the CBBH has the role of a coordinator, with the Entity Ministries of Finance, the Entity Banking Agencies, BH Banks' Association participating as well; adoption of decisions on managing risk of money laundering and terrorist activities financing in BH and guidelines for analysis and assessment of risk of money laundering and terrorist activities financing in BH by the Entity Banking Agencies, after the adoption of the Law on preventing money laundering and financing of terrorist activities in BH, which was one of the important requirements for accessing the beginning of negotiations with the EU, and the establishing of regulations of the Entity Banking Agencies in the area of managing environmental, social and climate change risks -ESG.

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TRENDS AND RISKS FROM THE INTERNATIONAL ENVIRONMENT

1. TRENDS AND RISKS FROM THE INTERNATIONAL ENVIRONMENT

The main characteristics of the global economy in 2023 are: weak economic growth; still high inflation, although monetary policy tightening measures by leading central banks led to its gradual weakening; continued tightening of financial conditions; the strengthening of geopolitical risks and the polarization of relations between the world's leading economies, which lead to uncertainty in international economic trends. The global economic recovery in 2023 was slow and uneven, with significant differences between countries. While the US economy has been more resilient than expected, achieving growth in personal consumption and avoiding recession, economic growth in the euro area has stagnated, particularly due to weakness in consumption and foreign trade. Risks to the financial stability of the euro area gradually weakened during 2023, due to the downward trend in inflation, which led to expectations of a reduction in ECB interest rates. Key risk factors continue to include economic and geopolitical uncertainty, the impact of higher interest rates on corporate and household debt servicing, along with a reduction in real disposable income and changes in consumption patterns due to prolonged and high inflation, a decline in credit volumes, and the impact of falling real estate prices on other sectors. Despite the poor outlook for economic growth in 2023, the banking sector was highly profitable, mainly due to higher interest rates. However, the decline in the volume of lending, as well as the expected correction of interest rates, will affect the profitability of the banking sector. The risks related to loans for commercial real estate have also increased, and it is expected that the price drop in this segment of the real estate market will continue. Although the banking sector has shown resilience, there are also noticeable signs of deteriorating asset quality. Government bond yields, euro area stock indices and gold prices all recorded strong growth, while oil prices were volatile.

1.1. Trends in the international environment.

Global economic recovery in 2023 was slow and uneven with significant differences between countries. At the global level, economic activity growth of 3.2% was recorded in 2023, with developed countries recording a growth of 1.6%, while a slightly stronger growth of 4.3% was recorded in the group of developing countries (Table 1.1).

According to IMF projections from April 2024, the global economy is expected to grow at the same rate of 3.2% in the current year and in 2025. The IMF also expects global inflationary pressures to ease, albeit at a slower pace than previously forecast, with average inflation expected to decline from 6.8% in 2023 to an average of 5.9% in 2024, and up to the level of 4.5% in 2025. Projections for global growth in 2024 and 2025 are below the historical annual average of 3.8% (the period from 2000 to 2019), and reflect the effects of restrictive monetary policy and the withdrawal of fiscal support, as well as low productivity growth. Advanced economies are expected to achieve moderate growth, mainly due to the expected recovery of economic activity in the euro area, after the low growth recorded in 2023, while in developing economies stable growth is expected, with regional differences.

Table 1.1: Real GDP, Annual Growth Rate

	Real GDP, annual growth rate					Change relative to the October 2022 projection	
	2021	2022	2023	2024	2025	2024	2025
The world	**6.5**	**3.5**	**3.2**	**3.2**	**3.2**	**0.3**	**0.0**
Developed economies	5.7	2.6	1.6	1.7	1.8	0.3	0.0
USA	5.8	1.9	2.5	2.7	1.9	1.2	0.1
Euro area	5.9	3.4	0.4	0.8	1.5	-0.4	-0.3
Great Britain	8.7	4.3	0.1	0.5	1.5	-0.1	-0.5
Japan	2.6	1.0	1.9	0.9	1.0	-0.1	0.4
Developing countries and emerging markets	7.0	4.1	4.3	4.2	4.2	0.2	0.1
Russia	6.0	-1.2	3.6	3.2	1.8	2.1	0.8
China	8.4	3.0	5.2	4.6	4.1	0.4	0.0
European developing countries and emerging markets	7.5	1.2	3.2	3.1	2.8	0.9	0.3
Main foreign trade partners							
Germany	3.2	1.8	-0.3	0.2	1.3	-0.7	-0.7
Croatia	13.8	6.3	2.8	3.0	2.7	0.4	-
Serbia	7.7	2.5	2.5	3.5	4.5	0.5	-
Italy	8.3	4.0	0.9	0.7	0.7	0.0	-0.3
Slovenia	8.2	2.5	1.6	2.0	2.5	-0.2	-
Austria	4.2	4.8	-0.7	0.4	1.6	-0.6	-0.8
Montenegro	13.0	6.4	6.0	3.7	3.0	0.0	-

Source: World Economic Outlook, IMF, April 2024, CBBH

The US economy proved to be more resilient than expected in 2023, and continued to grow, mainly due to growth in personal consumption, thus avoiding the expected recession. The annual GDP growth rate was 2.5%, which exceeded the growth of 1.9% in 2022. Despite the increase in interest rates in 2022 and the first half of 2023, the US economy, supported by a strong labour market and declining inflation, has remained resilient. In the fastest cycle of monetary tightening since the 1980s and an increasing labour force participation rate, the US labour market has remained strong with the current unemployment rate at 3.7%. Due to such a strong labour market and consumer optimism, as well as earlier government subsidies, the growth of personal consumption has accelerated significantly in 2023. Moderate inflation has also supported consumption. Measured by the Consumer Price Index (CPI), inflation is halved in 2023, to 4.1%, compared to an average annual rate of 8% in 2022. Core US inflation (excluding food and energy) has declined significantly over the past 12 months. Although US inflation started to rise earlier than in other G7 economies, reflecting a faster recovery from the pandemic, it also started to fall earlier and faster. Differences in the trend of inflation compared to European economies were caused by the war in Ukraine, which had a more significant impact on the growth of food and energy prices in European economies than in the US. Growth in GDP in 2023 was also contributed by an increase in trade, government spending and business investment. Stimulating fiscal policy measures, including infrastructure spending and a series of tax reliefs, have boosted government and business investment. Nevertheless, at the beginning of the fourth quarter, there were noticeable signs of weakening in the labour market, which began to be reflected in the tendency to spend and overall economic activity, so economic growth slowed down in the fourth quarter (3.4% on an annual basis) compared to the third quarter (4.9% on an annual basis).

In 2023, the euro area recorded a significant slowdown in economic activity (Table 1). Economic growth stagnated from quarter to quarter throughout 2023, and in the third quarter a slight contraction of economic activity of -0.1% was recorded in comparison to the previous quarter. The slowdown in economic activity in the euro area was due to pronounced weaknesses, especially in consumption, but also in foreign trade. On the manufacturing side, gross value added in the industry was constrained by weak demand and high energy costs, as well as increased financing costs. The euro area industrial sector is under pressure from increased energy prices since the beginning of the war in Ukraine, weakening external demand, as well as structural weaknesses. In the fourth quarter of 2023, Germany, the largest economy in the euro area, recorded a drop-in economic activity by 0.3% compared to the same period of the previous year, as a reflection of the drop in global demand, persistently high inflation, and a labour shortage. The decline in German economic activity was particularly pronounced in energy-intensive industrial sectors and sectors related to energy production, while a significant slowdown was recorded in the construction sector.

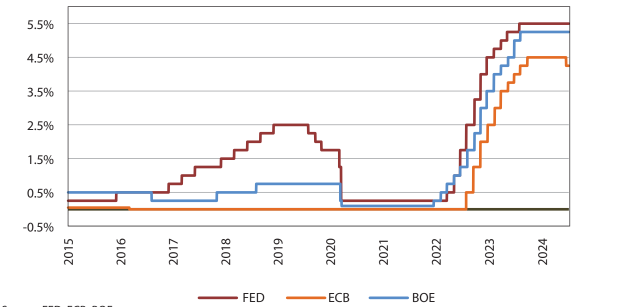
The euro area economy did not record a recovery even in the first quarter of 2024. Although the service sector has remained resilient, manufacturing firms are facing weak demand and production has continued to decline, especially in energy-intensive sectors. Nevertheless, a recovery is expected in 2024, supported by the growth of real revenues, as a result of lower inflation and wage increases. Investment activity should begin to accelerate somewhat later, as financing conditions ease. In addition, the recovery of euro area exports is expected in the coming quarters, due to the recovery of the global economy.

During 2023, the leading central banks continued to implement a restrictive monetary policy in response to high inflation (Graph 1.1). In the first half of 2023, the FED continued to raise reference interest rates, but at a lower intensity than in 2022 (by 25 basis points each at the first three meetings held) due to the slowdown in inflation growth and good conditions on the labour market. Reference interest rates were in the range of 5.00 - 5.25% after the May meeting, while at the June meeting, in line with expectations, it was decided to keep interest rates unchanged, due to data that indicated that the US economy is stronger than expected, and that there was a decrease in inflation to the level of 4%. The FED then raised the reference interest rate by another 25 basis points, given that the data indicated a strong labour market and wage growth, which contributed to the growth of inflationary pressures and reduced the central bank's efforts to curb inflation. Interest rates then remained unchanged, and were in the range of 5.25% to 5.50%, until the last meeting held in May 2024. The prospects for a reduction in the reference rate in 2024 have decreased, due to inflation that remained above 3% until the end of April 2024, but the FED has not announced any new increases in the reference rate.

In 2023, the ECB continued to raise reference interest rates by a total of 2 percentage points. The reference interest rates of the ECB were increased by 4.5 percentage points in the period from July 2022, when interest rate increases began, to September 2023, when the last increase was recorded. During 2023, the reinvestment of matured securities purchased under the Asset Purchase Programme (APP) was completed, while the reinvestment of securities purchased under the Pandemic Emergency Purchase Programme (PEPP), according to ECB announcements, will be completed by the end of 2024. The ECB reduced the reference interest rates by 25 basis points at the meeting in June, in line with the favourable inflation data in the euro area, and the reference interest rates are currently at the following levels: deposit facility rate 3.75%, main refinancing operations rate 4.25% and marginal, lending facility rate 4.50%,

In 2023, the Bank of England increased the reference interest rate five times, to the level of 5.25%, after which the reference interest rate was kept at the same level at the next six meetings held. The Bank of England is also implementing quantitative tightening, reducing the value of the portfolio of assets purchased under the quantitative easing programme, by ceasing reinvestment of maturing bonds, and selling bonds.

Graph 1.1: Trend of Benchmark Interest Rates of Leading Central Banks



Source: FED, ECB, BOE
Note: The graph shows the upper limit of the FED benchmark interest rate interval;
The graph shows the ECB main refinancing operations rate.
The World Health Organisation declared the pandemic of coronavirus in March 2020;
Bank of England in December 2021 was the first of the key central banks to raise the benchmark interest rate.

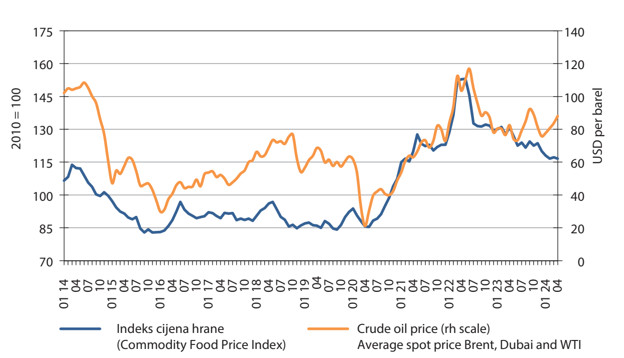
The leading central banks recorded losses in 2023, which to a large extent arose as a reflection of the rise in reference interest rates. As a result of the normalisation of monetary policy, central banks, in addition to raising reference interest rates, began to reduce their holdings of securities, by not reinvesting part of the maturing securities from the bond purchase programme. However, given that the majority of securities portfolios consist of bonds with longer maturities, the reduction of central banks' balance sheets takes place gradually. Most of these bonds were bought with low fixed yields, while on the other hand, due to the strong and rapid growth of reference interest rates from mid-2022, the interest on deposits held by commercial banks with central banks is significantly higher. Thus, the interest expenses paid by central banks on the liability side grew faster compared to the interest income they earned on bonds on the asset side, which resulted in losses in 2023. In the case of the ECB, most of the securities purchased for the purposes of conducting monetary policy were purchased during a period of low interest rates and have long maturities and fixed coupons. These securities will continue to generate relatively low interest income, which will not be immediately affected by changes in the ECB's reference interest rates. At the same time, cash settlements of these purchases through the Real Time Settlement System (TARGET) led to an increase in the ECB's net liabilities, offset by the interest rate on the main refinancing operations, which has been rising since 2022, resulting in an increase in expenses of the ECB.

Thus, the loss of the ECB in 2023, before the release of provisions, amounted to 7.9 billion euros. After using the risk provisions, the loss of 1.3 billion euros will be carried forward to the next year, to be covered by future profits. The ECB has announced that it is likely to incur additional losses over the next few years as a result of the materialisation of interest rate risk, before returning to generation of sustainable profits. Also, the FED recorded a loss of 114.3 billion dollars in 2023, which is the largest recorded loss in the history of this central bank. The total interest expenses of the FED amounted to 281.1 billion dollars, of which the interest expenses based on excess reserves held by commercial banks with the FED amounted to 176.8 billion dollars in 2023, which is almost three times the amount recorded in 2022. On the other hand, interest income was significantly lower and amounted to 163.8 billion dollars.

Oil prices have recorded increased volatility during 2023. In the first half of 2023, crude oil prices fluctuated following the ban on imports of Russian crude oil and products into the EU, interest rate hikes by global central banks and inflation concerns. At the beginning of April 2023, producers of OPEC+ countries unexpectedly announced a reduction in oil production by about 1.6 million barrels per day, due to fears of a global recession and the commitment of OPEC+ countries to support oil prices by limiting supply. Following this announcement, the price of Brent crude oil rose by over 6%, reaching a level of 86.96 dollars per barrel in mid-April 2023. In the second half of 2023, geopolitical tensions led to greater price fluctuations. OPEC+ announced in June 2023 that the production cut will be extended until the end of 2024. In the third quarter of 2023, oil prices recorded a strong growth due to the reduction of oil production in Russia and Saudi Arabia, after which a drop in prices was recorded despite the tensions in the Middle East. Weaker expectations of global demand growth contributed to downward pressure on prices. On the supply side, OPEC+'s implementation of production curbs was offset by strong production growth in Iran and non-OPEC countries, led by the US. However, oil prices again recorded significant growth in 2024, as intensified geopolitical tensions coincided with increased demand and reduced supply of oil.

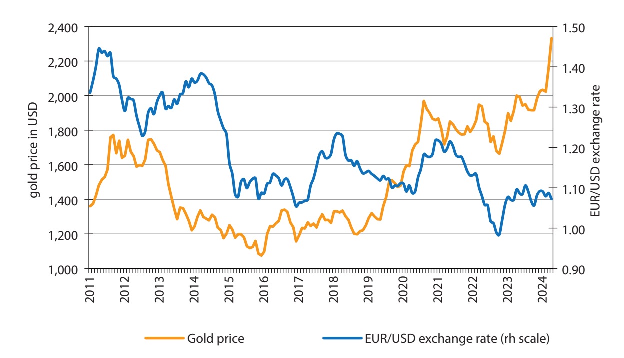
After strong growth in 2022, the food price index had a downward trend in 2023 and the first half of 2024. Global food prices are expected to continue their downward trend further into 2024 and 2025, with the global supply outlook continuing to improve.

Graph 1.2: Food and Oil Prices



Source: FED, ECB, BOE

Graph 1.3: Gold Price and EUR/USD Exchange Rate



Source: the World Bank, Bloomberg

Movements on the world foreign exchange markets in 2023 were also marked by the influence of expectations of changes in the monetary policy of the leading central banks, and changes in the macroeconomic outlook. In the first half of the year, the euro strengthened against the dollar under the influence of improved macroeconomic conditions and a faster pace of tightening of the monetary policy of the euro area. However, the US dollar strengthened in the middle of the year, as the US economy proved to be more resilient than expected, leading to a change in market expectations that the FED's reference interest rate will remain high for a longer period than previously predicted. The fall of the dollar was pronounced again at the end of the year, due to strong expectations of a reduction in the FED's reference interest rate after a significant drop in inflation and a slowdown in the growth of the US economy in the fourth quarter. The first half of 2024 was marked by an appreciation of the dollar against the euro, as a reflection of the greater resilience of the US economy compared to the euro area.

In 2023, the price of gold continued to record growth from the previous year, and reached new record levels at the beginning of 2024. In the first half of 2023, the re-opening of the Chinese economy, which increased the demand for this precious metal, problems in the operations of several banks in the American banking sector, and the expected end of the increase in the FED's reference interest rate influenced the upward trend in the price of gold. The growth of geopolitical risks and uncertainties in the second half of the year was the most significant factor that raised the price of gold as a safe haven for over 2,000 dollars per ounce. The price of gold continued to rise to historically high levels in the first half of 2024, due to expectations of a reduction in the reference interest rates of central banks in the second half of the year, further strengthening of geopolitical risks, as well as due to significant demand for gold by central banks[1].

[1] *https://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q1-2024/central-banks*
Gold holding by central banks of countries can be seen at:https://www.gold.org/goldhub/data/gold-reserves-by-country

1.1. Overview of the main risks in the EU and the euro area

Risks to the financial stability of the euro area decreased to a certain extent during 2023, given that inflation had a downward trend, due to restrictive monetary policy measures, and the reference interest rates of the ECB were lowered in June 2024. Nevertheless, geopolitical tensions have further intensified and still pose a significant risk to the financial stability of the euro area. In addition, several key risks to the financial stability of the euro area are still present. High corporate and government indebtedness makes these sectors vulnerable to shocks. With the weak economic environment in the euro area, continued or growing geopolitical uncertainty creates additional challenges for many companies. Also, banks that have greater exposure to the real estate sector face increased credit risk, given the fall in real estate prices. euro area bank profits, although extremely high due to rising interest rates, are likely to decline in the future due to rising bank funding costs and deteriorating asset quality. The key risks to financial stability are: economic and geopolitical uncertainty, the impact of higher interest rates on corporate and government debt servicing, and the impact of falling real estate prices on the quality of banking sector assets.

1.1.1 Effects on the banking sector

Indicators of the capitalisation of euro area banks recorded growth in 2023, due to the higher profitability of banks and the reduction of the total amount of risk exposure. The rate of common equity tier 1 capital (CET1) for systemically important institutions at the end of the fourth quarter of 2023 recorded an increase compared to the previous year and amounted to 15.3%, due to the increase in retained earnings, due to the high profitability of the euro area banking sector. The amount of exposure to risk (Risk-Weighted Assets, RWA) recorded a decrease, which is largely the result of a drop in lending, and also contributed to the improvement of this indicator.

The profitability of euro area banks reached the highest level in the last ten years in 2023, due to rising interest rates, higher interest margins and the resulting higher net interest income. Interest margins increased due to a significant increase in reference interest rates starting in mid-2022, given that banks adjusted interest rates on deposits more slowly (a significant increase in interest rates on deposits occurred only in the term deposits category). However, profitability growth is not expected to continue in the coming period, due to concerns about the quality of assets, subdued lending dynamics and rising bank financing costs. The combination of higher living costs and higher debt repayment costs could have a negative impact on the quality of banks' assets. Higher interest rates on loans and stricter credit standards, in conditions of increased uncertainty about the outlook for economic growth, led to a decrease in demand for loans and a significant drop in the volume of lending, which will negatively affect the profitability of banks.

In 2023, there were signs of deterioration in the quality of bank assets, which is noticeable in the increase in default rates on loans for commercial real estate. Although the NPL ratio remained at a very low level of around 2% in 2023, recorded losses on the commercial real estate loan portfolio affected the deterioration of asset quality. Several banks have recorded a significant deterioration in their portfolio of loans for commercial real estate, as indicated by the increase in non-performing loans in this segment. Nevertheless, these loans make up a relatively small part of banks' loan books, of only about 8% of total loans granted by significant institutions in the fourth quarter of 2023. When it comes to households, higher costs of living and borrowing burden consumers, which is also evident in the growing share of consumer loans whose repayment has started to be delayed.

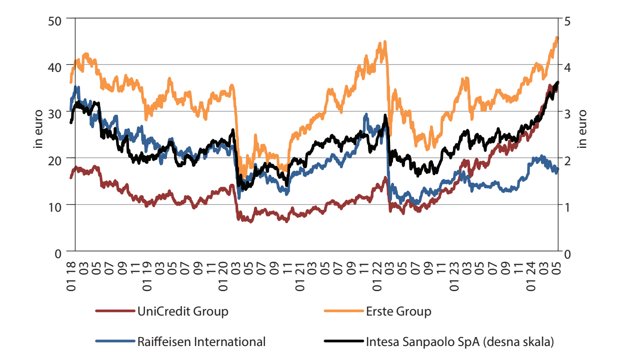
The credit ratings of banking groups operating in BH were confirmed in 2023, while the outlook was unchanged or revised upwards. The rating agency S&P confirmed the long-term credit rating of Raiffeisen bank A- in May 2023, and then again in May 2024, and maintained a negative outlook, despite the bank's significant exposure to Russia. The realised profit and capital level of the Raiffeisen Group were adequate to absorb the effects of its exposure to Russia. This banking group achieved a return on equity (ROE) of 15.4% in 2023, due to high net interest margins in all regions of operations. The asset quality of this banking group is still solid, despite the recent stress in the commercial real estate portfolio. The group's non-performing asset (NPA) ratio increased to 3.1% at the end of 2023 from 2.3% in 2022, due to non-performing loans in the commercial real estate portfolio in Austria in the fourth quarter of 2023. Forecasts by the S&P agency for the Raiffeisen Group indicate good capitalisation and strength in key markets, even without the branches of Raiffeisen Bank International in Russia and Belarus. The negative outlook reflects geopolitical and macroeconomic challenges related to the war in Ukraine, and increased reputational, political and financial risks arising from significant exposure to Russia. Rating agency Moody's has increased the credit rating of Raiffeisen bank and Erste bank from level A2 to level A1 with a stable outlook, due to changes in the basic assumptions that this agency uses to evaluate the credit rating of Austrian banks.

In October 2023, the rating agency S&P confirmed the long-term credit rating of UniCredit S.p.A. and Intesa Sanpaolo S.p.A. banks as BBB, and confirmed the stable outlook. The rating confirmation followed the confirmation of Italy's sovereign credit rating and reflects S&P's view that the profitability of these banks has increased, which will continue to support the capitalisation of these banks and provide them with significant protective layers in the event of a potential deterioration in economic conditions. Rating agency S&P also expects that the good quality of these banks' assets will be maintained in the coming years. The ratings of these banks reflect effective diversification, operational efficiency, as well as improved capitalisation and asset quality, and good liquidity reserves. The S&P agency highlights the positive effects for UniCredit Bank from reduced economic risks in Italy, reduced exposure to Russia and the progress achieved in the last few years in cleaning up the balance sheet and strengthening risk management.

In November 2023, the rating agency Moody's also confirmed the credit rating of Italy and changed the outlook from negative to stable, which also affected the same rating actions of this agency for Intesa Sanpaolo and UniCredit Bank. Rating agency Moody's estimated that the expected moderate increase in NPLs due to higher interest rates and inflationary pressures on household purchasing power and corporate margins will not weaken the financial health indicators of these banks, due to good profitability and improved capital buffers.

In 2023, the share prices of euro area banks recorded growth, primarily due to record profitability. When it comes to banking groups operating in BH, UniCredit S.p.A recorded the highest growth of 85.1% compared to the end of the previous year, while Intesa Sanpaolo S.p.A recorded a growth of 27.2% (Graph 1.4). Austrian banks Erste Group and Raiffeisen Bank International recorded an increase in the value of shares of 22.8% and 21.6% respectively. At the beginning of March 2023, the volatility in the financial markets increased sharply, which led to a significant drop in the prices of bank shares, due to the banking crisis in the USA and Switzerland. Already in the second quarter of 2023, bank share prices partially recovered from the instability that began in mid-March, and maintained an upward trend until the end of the year. In the first half of 2024, the share prices of euro area banks recorded strong growth to the highest levels in the last seven years, due to good results achieved in the first quarter of this year and increased dividend payments.

Graph 1.4: Trend of Local Banks' Mother Banks' Stock Prices

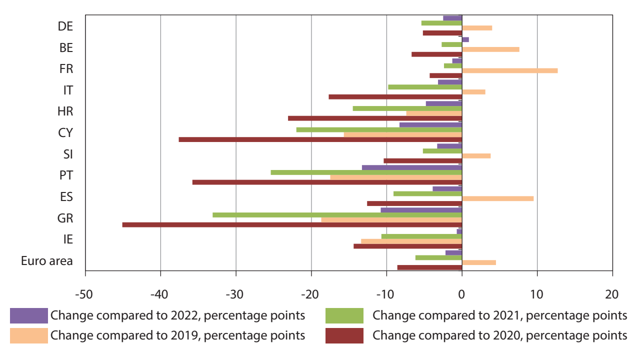


Source: Bloomberg

1.1.2 Effects on the real sector

Euro area governments continued to wind down fiscal support measures adopted in response to the pandemic and energy price shocks and inflation. The budget deficit of the euro area countries continued its downward trend in 2023 and at the end of the year amounted to 3.6% of GDP, which is a slight decrease compared to the previous year when it amounted to 3.7% of GDP. The ratio of the budget deficit to GDP was reduced due to a greater increase of revenues in conditions of high inflation compared to the growth of budget expenses. The public debt of the euro area member countries was reduced from 90.8% of GDP in 2022 to 88.6% at the end of 2023, due to the increase in the nominal value of GDP, which was greater than the increase in public debt (Graph 1.5). With public debt maturing at higher interest rates, public debt servicing costs are rising, mainly in countries where short-term refinancing needs are greater. Fiscal positions are still weak in many countries in conditions of weaker prospects for economic growth, given the elevated debt levels and continuously high budget deficits.

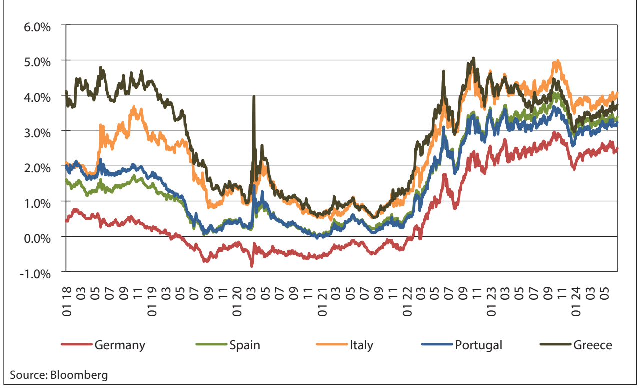
Graph 1.5: Public Debt Changes as Per Cents of GDP in 2023



Source: Eurostat, CBBH

Yields on government bonds of most euro area countries recorded growth in 2023. The growth of yields from 2022 continued in the first half of 2023, except in March, when problems in the US banking sector and problems with Credit Suisse led to concerns about the outbreak of a banking crisis in the EU, which increased the demand for safer asset and led to a rise in the prices of government bonds of the euro area countries and a sharp drop in their yields. The yields then, after the noted correction, were relatively stable, until the period from August to November 2023, when the yields on long-term bonds rose significantly, and then returned to their previous level, as a reaction to changes in expectations related to the implementation of monetary policy. The downward correction was contributed by more favourable data on inflation in the euro area and the USA, as well as the increase in expectations that the ECB will start reducing reference interest rates earlier. In line with the changes in expectations regarding the start of the ECB's interest rate reduction cycle, there was also a change in the yield on the ten-year government bonds of the euro area countries in the first half of 2024, when the countries' bond yields again recorded an upward trend (Graph 1.6).

Graph 1.6: Yield of Ten Year Government Bonds



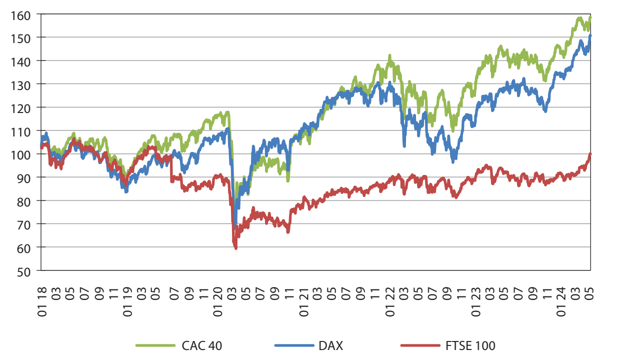
Source: Bloomberg

The inversion of the yield curve, which occurs when yields on two-year government bonds become higher than yields on ten-year government bonds, has fuelled fears of a recession in the euro area. Despite a slight increase in 2021 and the first half of 2022, the spread between long-term and short-term euro area bond yields, i.e., the slope of the yield curve became negative at the end of 2022. The negative spread was particularly pronounced in the case of German bonds, which carry a lower credit risk. The inverse yield curve indicates expectations of a worsening economic situation and the perception of increased risk in the medium term.

In the course of 2023, rating agencies increased the credit ratings of several countries, and confirmed the credit ratings of most other euro area countries and revised the credit rating outlook upward. Rating agencies have increased the credit ratings of Ireland, Greece, Cyprus and Portugal. On the other hand, rating agencies Fitch and S&P lowered France's sovereign credit rating from AA to AA- with a stable outlook, due to weaker fiscal indicators and the expected continuation of the growth of the public debt-to-GDP ratio, as a reflection of relatively large fiscal deficits and modest progress in fiscal consolidation. The budget deficit of 5.5% of GDP in 2023 is above the 2022 level of 4.8% due to weaker economic growth and higher inflation-indexed public spending, which outweighed the reduction in expenses caused by the continued phasing out of support measures after the pandemic.

During 2023, stock market indices recorded a significant growth compared to the previous year (Graph 1.7). Euro area stock indices recorded strong growth in the first quarter of 2023, boosted by more optimistic macroeconomic expectations, the re-opening of the Chinese economy and a sharp drop in energy prices. Also, the good financial results of the companies brought the stock prices of the euro area back to a higher level. However, volatility in the banking sector has caused investors to divert their funds to safer assets. However, given that the banking sector remained stable and that there was no deterioration in the basic indicators of banks, nor was there a downward revision of the credit ratings of banks, the stock market indices recorded a renewed increase above historical averages until June 2023, and had an upward trend until the end of the year movements. Euro area stock indexes fell in October, following risk avoidance in global markets due to conflict in the Middle East, as well as rising energy prices adding to concerns about persistent inflationary pressures. The strong growth of stock market indices continued in the first half of 2024 under the influence of favourable business results of companies, and the reduction of euro area inflation, which was greater than expected.

Graph 1.7: Trend of Main Market Indices

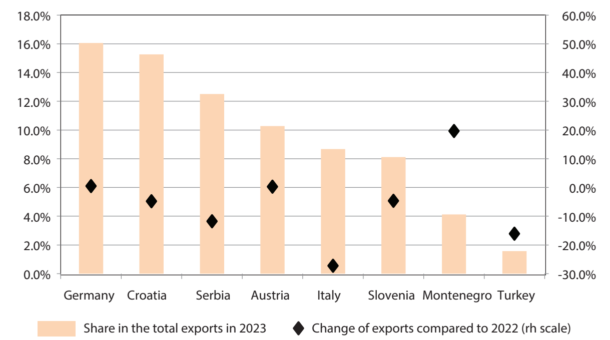


Source: Bloomberg, CBBH, average value of market indices in 2017 = 100

The euro area unemployment rate continued to decline in 2023, reaching a new record low level of 6.4% and decreasing by 0.3 percentage points compared to the previous year. The weak growth in economic activity in the euro area has mostly not been reflected in labour market indicators, which are still very strong with labour shortages, especially in the construction and service sectors. In such conditions, pressures on nominal wage growth continued, especially in the service sector.

During 2023, there was a significant slowdown in the growth of the value of international trade, under the influence of the weakening of demand at the global level, and the appreciation of the US dollar, which was also reflected in the foreign trade exchange of BH, due to the slowdown of economic activity in the countries of the euro area, which BH is targeting. In 2023, the total export from BH amounted to KM 16.7 billion and recorded a decrease of 7.1% compared to the previous year, while the total import amounted to KM 27.8 billion, which is by 3% less compared to the previous year. The coverage of imports by exports decreased compared to the previous year and amounted to 60.1%, while the foreign trade goods deficit amounted to KM 11.7 billion compared to 10.7 billion in 2022. Total exports to EU countries decreased by 7.9% compared to 2022 and amounted to KM 12.2 billion. Exports have decreased to almost all countries which are main foreign trade partners of BH (Graph 1.8).

Graph 1.8: BH Exports to Main Trade Partner Countries



Source: BHAS, CBBH

Centralna banka
BOSNE I HERCEGOVINE
Централна банка
БОСНЕ И ХЕРЦЕГОВИНЕ

MACROECONOMIC
TRENDS AND RISKS IN BH

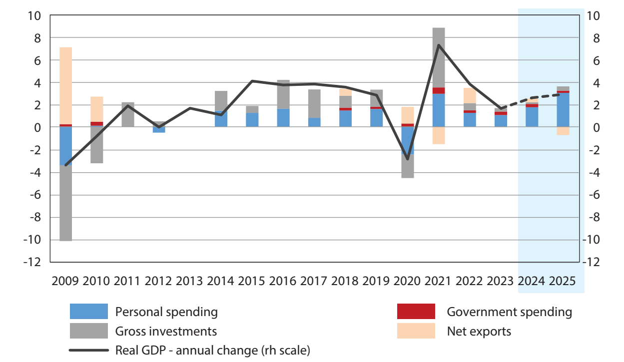
2. MACROECONOMIC TRENDS AND RISKS IN BH

Risks from the domestic macroeconomic environment decreased due to a significant weakening of inflationary pressures, a decrease in the unemployment rate, an increase in nominal and real net wages, a decrease in external debt and a slightly more favourable balance of payments position of BH compared to the previous year. However, despite the improvement of a number of macroeconomic indicators, economic activity achieved significantly lower growth compared to the previous year. Despite recorded signs of slowing down in certain segments, activities on the real estate market remained generally strong during 2023, and the same trend can be expected in 2024. The general government sector recorded an increase in the fiscal deficit in 2023, but at the same time the share of total public debt in GDP continued to decrease, and indicators of fiscal sustainability continue to indicate a low level of exposure to risks related to fiscal policy.

In 2023, the domestic economy faced numerous challenges in an extremely unfavourable macroeconomic environment, which is why it achieved a modest growth in real economic activity of 1.6%, on an annual basis. Due to the increased level of risk in the international macroeconomic environment, which is reflected to a significant extent on domestic macroeconomic trends, the growth of real economic activity continued to slow down for the second year in a row. At the same time, the growth of real economic activity was lower by 2.2 percentage points compared to the previous year. The slowdown in growth was primarily due to a decrease in external demand, as a result of pronounced weaknesses in the economies of the EU and euro area countries, from which BH's main foreign trade partners come, and as a result of the slowdown in the growth of domestic private consumption, given that disposable income was burdened by high inflation. From the second quarter of 2023, negative growth rates of export of goods and services have been recorded, and at the annual level, the real export of goods and services was lower by 3.2%. At the same time, the decline in industrial production, which is dominantly export-oriented, and modest final consumption in BH resulted in a real decline in the value of imports of goods and services (-2.4%), which largely mitigated the negative effects of the reduction in external demand on economic growth, due to which the negative contribution of the foreign trade balance remained subdued (- 4 bp). On the other hand, other GDP categories, personal and state consumption, and gross investments made a positive contribution to real GDP growth in 2023 (Graph 2.1). At the same time, considerable differences in contributions between individual categories of GDP are still noticeable.

In the last few years, with the exception of the post-pandemic year 2021, there has been a continuous decline in the contribution of investments to economic growth in BH. Investments, as a category that should be the main driver of economic growth and development, are still at a very modest level. Although no significant tightening of financial conditions was recorded on the domestic market, no stronger investment activity was recorded in 2023, so gross investments, as well as government consumption, made a very modest contribution to economic growth (0.3 percentage points). The growth of economic activity was to the greatest extent supported by the growth of personal consumption (contribution of 1 percentage point), especially in the second part of the year, when a somewhat more intensive growth of credit activity in the household sector, weakening of inflationary pressures and growth of real wages was recorded, which considerably contributed to mitigating the previously accumulated negative effects of high inflation on the disposable income of the households. Also, the growth of inflows based on remittances from abroad continued (5.7% compared to the previous year), which also favourably affects the personal consumption of the households.

Graph 2.1: GDP of BH (Annual Change and Contribution to Growth by Categories)



Source: BHAS, CBBH

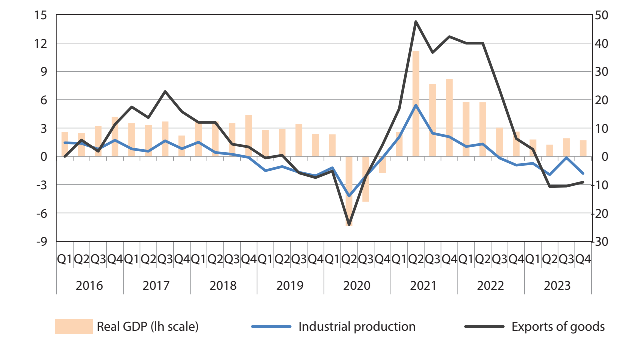
According to CBBH projections[2], in 2024, the total economic activity should grow by 2.6%, and private consumption is expected to make the most significant contribution to economic growth, given the positive trends in the labour market, the expected continuation of the reduction of inflationary pressures and the strengthening of loan activity in the retail sector. Along with the predicted mild recovery of export dynamics, a somewhat weaker intensity of import growth is expected, which is why net exports should have a slight positive contribution to economic growth in 2024. Also, the increase in public investments planned for 2024 should lead to an increase in construction and capital investments, however, the contribution of this GDP category to economic growth will remain modest in the next year as well.

[2] *Spring round of medium-term macroeconomic projections from May 2024.*

A slightly stronger recovery of economic activity is predicted in 2025, as a result of continued strengthening of private consumption and slowing of inflation growth, which should fall to a level of around 2% in 2025, which is a level of inflation slightly above the long-term average.

In 2023, the highest growth in gross added value was achieved in service activities, while production activities mostly experienced a decline or very modest growth rates. Thus, the highest growth rate of 16.5% was recorded in the hotel and catering industry, due to the strengthening of demand for tourist services of foreign and domestic tourists, while the growth of domestic demand influenced the increase in gross added value in the wholesale and retail (6.5%). Also, a more noticeable growth in gross added value was achieved in auxiliary service and administrative activities (6%), and in communication and information activities (5.2%). On the other hand, the largest decline in real economic activity was recorded in the process manufacturing industry (-5.1%) due to the weakening of external demand and the consequent reduction in the volume of industrial production in this industry, which was also lower by 5.1% on an annual basis. In addition, for the sixth year in a row, there was a decline in real economic activity in the mining and quarrying industry (-4.5%), as a result of the continuous contraction in the volume of industrial production in this industry. The volume of production in the ore and stone mining industry decreased by 7.2% compared to the previous year, and as a result of the lack of sufficient quantities of coal and the reduction of deliveries to thermal power plants, there was also a drop in the production of electricity in thermal power plants by 12.3% on an annual level[3]. However, due to a more favourable hydrological situation in 2023, a significant increase in the production of electricity in hydropower plants was recorded (37.4%)[4], so that the activity of production and supply of electricity and gas was the only one to record an increase in the volume of industrial production in 2023 of 0.8% on an annual basis. The trend of decline in total industrial production, which began in the middle of 2022, continued until the end of 2023, with total industrial production recording an annual decline of 3.9%, while exports of goods recorded a decline of 6.9% (Graph 2.2). Considering the relatively weak short-term prospects for a stronger economic recovery of BH's main foreign trade partners, it is expected that external demand will only slightly strengthen during 2024, which will not significantly contribute to mitigating negative trends in industrial production in BH. The increased credit risk in numerous industrial activities and the decline in industrial production in the process manufacturing industry that was recorded in 2023 have already reflected a slight deterioration in the quality of assets of companies from this activity (see chapter 5), and negative trends in industrial production could lead to a deterioration asset quality in other production activities as well.

Graph 2.2:GDP, Exports of Goods and Industrial Production (% of Annual Change)

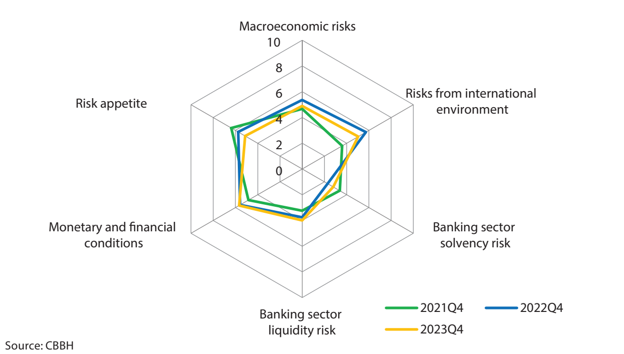


Source: BHAS, CBBH

Text box 1: Assessment of the main macro-financial risks for financial stability

The assessment of the main macro-financial risks that may arise in the real, fiscal, external or financial sector or as a result of their interconnection, as well as the assessment of monetary and financial conditions and investors' risk appetite, was made on the basis of a quantitative tool (Dashboard). The risk assessment is based on simplified standardisation and ranking of the positions of a comprehensive set of indicators that make the basis for quantifying the synthetic assessment of the degree of risk from different segments of the system. A rating in the range of 1 to 5 is an extremely low to slightly moderate degree of exposure to risks; a rating in the range of 5 to 8 is a moderate to slightly high degree of exposure to risks; a rating in the range of 8 to 10 is a high degree of exposure to risks. The ranking of ratings for monetary and financial conditions and risk appetite moves in the opposite direction, i.e., an increase in the distance from the centre of the graph means an improvement in monetary and financial conditions, i.e. an increase in the investor's tendency to take risks.

TB 1: Macrofinancial Risks Chart



Source: CBBH
Explanation: larger distance from the centre means higher risks, but also improvement of monetary and financial conditions and higher risk appetite.

The total exposure of the financial system to macro-financial risks in 2023 decreased compared to the previous year, primarily due to the mitigation of risks coming from the domestic macroeconomic environment.

[3] *Source: BHAS, monthly short-term indicators of energy statistics for 2022 and 2023, author's calculation.*

[4] *See footnote 1*

The international environment risks are also reduced in 2023, but are still more pronounced compared to other risk categories, given that they are the only ones placed within a moderately to slightly high degree of risk. The main sources of risk from the international environment for financial stability, which are reflected in domestic macroeconomic trends, stem from the possible additional tightening of geopolitical relations, the slowdown of economic growth in countries that are key trading partners for BH, the restrictive monetary policy implemented by the ECB throughout 2023 and in the first half of 2024, and still present inflationary pressures, although significantly weaker than in the previous year. When it comes to the domestic macroeconomic environment, the risks were much lower due to the continued weakening of inflationary pressures, the reduction of the unemployment rate, the gradual growth of real net wages, the reduction of external debt and the somewhat more favourable balance of payments position of BH compared to the previous year. However, despite the improvement of a number of macroeconomic indicators, due to the slowdown in external demand and the modest growth of personal consumption, economic activity achieved significantly lower growth compared to the previous year. Projections of economic growth for the next two years are somewhat more favourable considering that in the coming period, further weakening of inflationary pressures is expected, which, along with the continuation of positive trends on the labour market, will contribute to the recovery of domestic private consumption, and it is expected that overall risks in the domestic macroeconomic environment will continue to weaken.

The assessment of risks from the international environment and their spillover effect on the domestic economy is obtained on the basis of indicators that measure trade and financial ties in the economy, such as the value of imports and exports expressed as a percentage of GDP, foreign assets and liabilities expressed as a percentage of GDP. When assessing the risk from the international environment on the domestic economy, buffers that serve to mitigate external shocks are taken into account, i.e. the level of foreign exchange reserves expressed in months of imports, then gross foreign exchange reserves as a percentage of the monetary base and changes in the country's foreign exchange reserves. The total risks coming from the international environment are slightly reduced in 2023 as a reflection of slightly lower risks arising from BH's trade ties with foreign countries, since the values of the export and import indicators (in % of GDP) are lower than in the previous year. However, the risks arising from the connection of the domestic economy with foreign countries are still within a high degree of risk, especially after strong inflationary shocks and global growth in consumer prices, which significantly increased the nominal value of BH's foreign trade exchange, which also changed the GDP structure, in which export and import of goods and services make up a significantly larger part of GDP compared to previous years.

Due to the weak recovery of the economic activity of the main foreign trade partners, external demand could remain suppressed, and the risks to economic activity coming from the external environment and the country's balance of payments position will remain elevated in 2024 as well. In addition, the strong growth of interest rates on the European market during 2023, which remained at high levels in the first half of 2024, contributed to the increase in risks from the international environment, as a result of which the foreign assets of commercial banks increased strongly, and this indicator as well is within a moderate to slightly increased degree of risk. On the other hand, in 2023 there was also a slight increase in the level of foreign exchange reserves, which slightly increased the level of the buffer that serves the domestic economy to mitigate external shocks.

The solvency risk of the banking sector falls within a low degree of risk, although it is somewhat higher compared to the previous year. Strong growth in profitability, improvement in asset quality and increase in capitalisation have increased the resilience of the banking sector, so that structural risks arising from banks' balance sheets are lower compared to the previous year. At the same time, in a relatively unfavourable macroeconomic environment, a moderate growth of credit activity was achieved, which resulted in an increase in the indebtedness of the corporate sector and the retail sector, which contributed to a slight increase in the risks coming from these two sectors, which is why the overall risk assessment in the solvency segment is slightly higher.

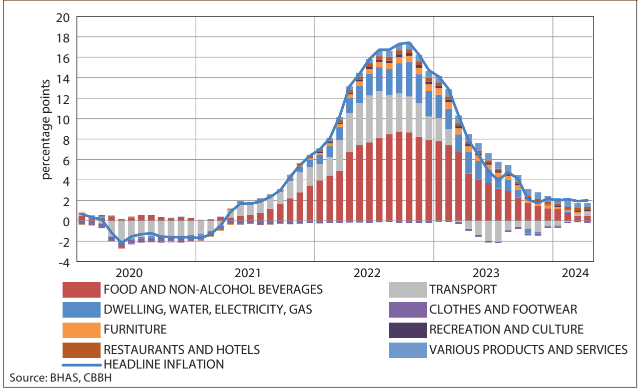
Liquidity risk is still low due to the high share of liquid assets in the total assets of the banking sector, which maintains good liquidity positions of banks. In the financing source segment, due to the continuous growth of deposits of resident sectors, which significantly exceed loans, the financing risk is extremely low, but the risk of maturity transformation for banks still remains high. In 2023, the term structure of sources of funds improved slightly due to the gradual growth of passive interest rates, however, the dominant share in sources of funds is still held by deposits on transaction accounts.

The assessment of overall monetary and financial conditions has slightly increased compared to the previous year, which indicates that borrowing conditions in 2023 are somewhat more favourable compared to the previous year, despite the recorded slight increase in interest rates on the domestic market. In the circumstances of still high inflation, there was no significant increase in interest rates in 2023, which, along with a slight easing of credit standards in granting loans in the retail sector, resulted in a strengthening of credit activity in the private non-financial sector, especially in the second part of the year. As a result of the foregoing, there was an increase in the real money supply and a slight decrease in the negative gap, which measures the ratio of loans to the private sector to GDP, which had the effect of slightly improving the overall assessment of monetary and financial conditions. In contrast to the easing of credit standards in granting of loans to the retail sector, banks had a significantly higher risk perception regarding the operations of non-financial companies, which is why the credit standards for granting loans to companies were tightened throughout 2023. Despite this, significantly higher credit growth was achieved in the sector of private non-financial companies compared to the previous year. Although the ECB eased its restrictive monetary policy in early June 2024, for the first time after a nine-month period in which interest rates were not changed, by lowering key interest rates by 25 bp, it is still expected that financing conditions in the euro area will remain the same due to the restrictive monetary policy tightened, which will continue to put pressure on the growth of borrowing costs on the domestic market in the coming period. The continued growth of interest rates on the domestic market, along with the continued tightening of other financing conditions, could to a certain extent affect the propensity to spend and limit credit growth in 2024.

As a reflection of the increased level of exposure to risks coming from the international and domestic environment, there was a **decrease in the tendency of investors to take risks** in 2023. With regard to investments on the domestic capital market, the recorded decline in the value of the main stock exchange indices SASX and BIRS indicates a lower tendency of investors to take risks. At the same time, the negative value of portfolio investments from the balance of payments of BH in 2023 indicates that there was an outflow of funds from the country as a result of increased investment in foreign debt securities due to the strong growth of interest rates on foreign markets. Also, inflows based on other investments were significantly lower than in the previous year, while the share of direct foreign investments increased to the level of 3.5% of GDP, which is still insufficient for a significant positive impact on economic growth in BH.

Mitigation of risks in the domestic macroeconomic environment is to the greatest extent reflected in the slowdown of inflation in BH, which in 2023 dropped to an average level of 6.1%, after it was 14% in 2022. The trend of slowing down the growth of total inflation, which started in November 2022, continued throughout 2023, and was influenced by the weakening of import inflationary pressures that followed as a result of the gradual normalisation in supply chains and the reduction of raw material prices on world markets, especially in the second half of the year, and favourable base effects, on the other hand. In conclusion, at the end of the year, the growth rate of consumer prices in BH dropped to the level of 2.2%[5], and the easing of inflationary pressures continued in the first quarter of 2024, when the average inflation was 2%. However, despite the trend of slowing price growth, the average annual inflation in 2023 was at a relatively high level, with the growth of food prices still quite pronounced and significantly contributing to the movement of overall inflation (Graph 2.3). In addition to the highest annual price growth recorded in the food and beverage category (10.6%), current inflationary pressures remained high in the services category as well. The growth in the price of electricity in BH in 2023, as in the previous year, was limited by the measures of entity governments, so prices in the category of electricity, gas and other energy products recorded a growth of 7.3% compared to the previous year. On the other hand, an average annual price decrease of 4% was also recorded in the transport category, which to some extent contributed to the stabilisation of inflation in 2023.

Graph 2.3: Inflation in BH and Contributions of Main Components



Source: BHAS, CBBH

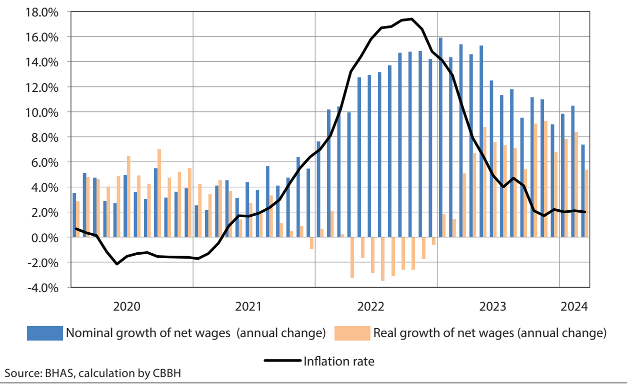
According to the latest medium-term projections of the CBBH from May 2024, a further weakening of inflation is expected in the next two years, to an average level of 2.6% in 2024, and to a level of 2% in 2025. The greatest impact on inflation growth in the next two years will be the continued rise in food prices, whereby the dynamics of food price growth will slow down significantly by the end of 2025, while administrative prices, primarily energy prices, will make a greater contribution to the growth of overall inflation in 2025.

In 2023, the positive trends from previous years continued on the labour market, which are reflected in a slight increase in the number of employed persons and a decrease in the unemployment rate, while this year also saw an increase in real wages, which was above the average inflation rate since the middle of the second quarter in BH. The recovery of the labour market is primarily the result of growth in economic activity in service industries, where the highest nominal growth in the average number of employed persons was recorded, while industrial activities, where the gross added value fell, recorded a decrease in the number of employed persons. The average number of total employed persons in 2023 increased slightly compared to the previous year (1.1%). According to data from the Labour Force Survey, under the ILO methodology, the average unemployment rate in 2023 was 13.2% and was lower by 2.2 percentage points compared to 2022.

5 *Annual inflation rate in December 2023.*

In contrast to the previous year, when due to a strong inflationary shock, real wages recorded a decline for almost the whole year, from the beginning of 2023, the real wages of the households began to rise gradually under the influence of stronger growth in nominal wages, with a simultaneous slowdown in inflation growth (Graph 2.4). From the middle of the second quarter, the real growth of net wages became higher than the average inflation, with an average growth rate of 7.5% in the second half of 2023, while the average six-month inflation in the same period was 3.4%. Positive trends in the growth of real wages continued in the first quarter of 2024, when the average growth of real wages amounted to 7.2% with a tendency to continue, which is to a significant extent conditioned by previously signed union contracts, the emigration of the working-age households and further growth of the minimum wage, which increased in FBH by 3.9% and in the RS by as much as 28.6% only at the beginning of 2024. The accumulated effects of the reduction in real disposable income from the previous two years were not reflected in the banking sector in 2023, nor until the end of the first quarter of 2024, in terms of the impaired ability to repay loans and the deterioration of the quality of the credit portfolio of the households, and the risks related to the reduction of disposable income are mitigated to a significant extent due to the weakening of inflationary pressures and the increase in inflows based on remittances from abroad. In 2023, total inflows based on personal transfers amounted to KM 3.79 billion or 7.7% of GDP, which is KM 203 million or 5.7% more than in the previous year.

Graph 2.4: Net Wages and Inflation



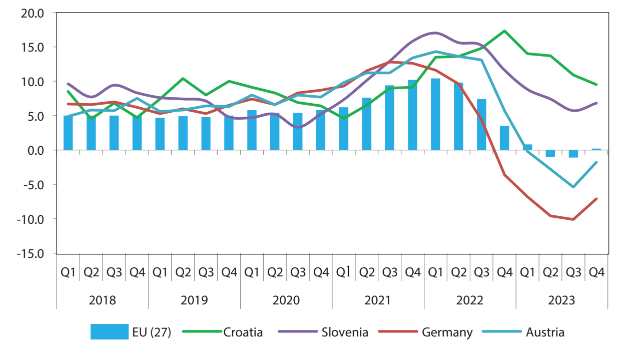
Source: BHAS, calculation by CBBH

Text box 2: The real estate market

The first signs of the weakening of the real estate market in the EU became visible already during 2022, and it was definitely confirmed during 2023 that it was not a matter of short-term negative corrections, which year was marked by a significant slowdown of real estate market indicators. The weakening of the EU real estate market during 2023 refers both to the price segment of the market and to the segment of total turnover, i.e. the number of transactions realised on the market itself.

According to data from EUROSTAT, which monitors traffic on the real estate market of 14 EU countries, in 2023, compared to the year before, the number of real estate transactions decreased in as many as 13 countries[6], while only Cyprus recorded an increase in the number of transactions on the real estate market. In addition to the decline in traffic, the year 2023 was also marked by a price correction on the market, so the EU house price index (HPI) during the second and third quarters of 2023 recorded a negative growth for the first time since 2013, dominated by a drop in prices in the largest western economies such as Germany, France, the Netherlands, Austria and Denmark. On the other hand, the countries of the region that are members of the EU (primarily Croatia, Slovenia and Bulgaria) continue to record positive growth rates, although there is a noticeable trend of slowing down compared to a year earlier in the markets of these countries as well (Graph 1).

Graph TB2.1: Annual Change of Real Estate Property Prices in the Selected EU Countries

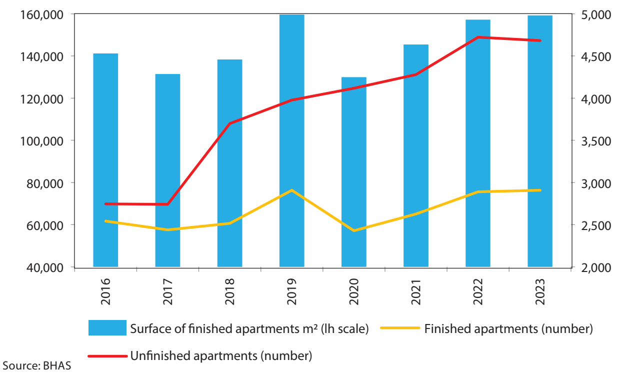


Source: Eurostat

Slowing down trends have not bypassed the real estate market in Bosnia and Herzegovina as well, where certain market segments have recorded stagnation or a decline in indicators compared to the previous year. This primarily refers to certain non-price segments of the real estate market, while unlike the EU, prices on the BH real estate market are continuously rising. Thus, in 2023, despite a 10.9% increase in the number of constructions permits for residential buildings, the number of completed and uncompleted apartments remained at approximately the same level as in 2022 (Graph 2). However, it should be noted that although the growth in the number of completed apartments on an annual basis was not significant (0.7%), the nominal number of completed apartments reached the pre-pandemic level of 2019.

[6] *Luxembourg, Austria, Hungary, Finland, Slovenia, France, Portugal, Belgium, Spain, Netherlands, Bulgaria, Ireland and Denmark.*

Graph TB2.2: Statistical Indicators in Residential Construction

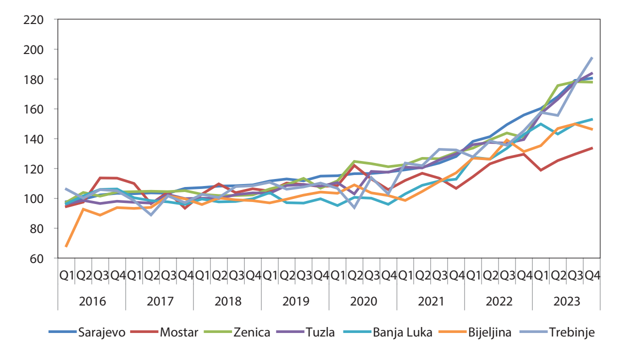


Source: BHAS

Despite stagnation on the supply side in terms of the number of completed apartments, the number of transactions in the field of new construction at the BH level increased by 13.3% in 2023, with an increase in the area of sold residential space of 12.5%. Thus, the number of new apartments sold and the area of sold space in 2023 reached record nominal values[7], as well as the average price per square meter in new construction, which is 5.8% higher than the average from 2022.

At the same time, the existing housing stock field is characterised by completely asymmetric trends between the price and non-price segments of the market. Namely, the turnover volume of existing housing stock, measured by the area of sold residential space, in a sample of ten BH cities and municipalities, was significantly reduced in 2023 (-22%). A decline in the turnover of the existing housing stock was recorded in as many as nine of them, and only the city of Trebinje recorded an increased turnover of transactions in 2023. Whether this decline represents a reversal of a three-year positive trend or just a short-term adjustment of the market is still difficult to determine with certainty, especially if one takes into account that the decline in the number of transactions in the existing housing stock did not result in a decline in market prices. Moreover, the real estate price index reached new record values in 2023, both at the cumulative level and at the level of all individual cities and municipalities (Graph 3).

Graph TB2.3: Real Estate Property Price Index

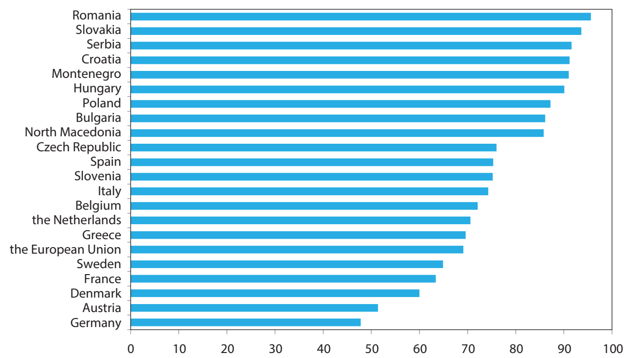


Source: CBBH

[7] *4,087 apartments with a total area of 220,246 m2*

The question of whether the drop in the number of transactions on the BH residential real estate market is the first serious sign that BH is entering a new cycle that will ultimately result in a drop in real estate prices after several years of strong growth remains open. However, it is necessary to keep in mind that historical data show that the real estate market has an extremely strong resistance to negative trends in other economic areas, both in the country and abroad. The strength and resilience of the real estate market is influenced by several interwoven factors, and one of the key ones can be considered the households preference for own property in the form of real estate. Although there are no official statistics for BH, it is quite certain that the residents of BH are among the highest ranked in Europe in terms of real estate ownership. Namely, according to EUROSTAT data, it is clearly noticeable that countries from the region and Eastern Europe have a greater tendency to own their own real estate compared to Western European countries (Graph 4).

Graph TB 2.4: The Share of Households Living in Their Own Real Estate Properties

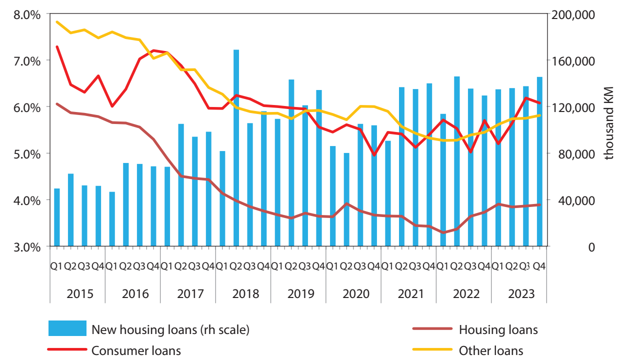


Source: Eurostat

Based on the above statistics, we can say with some certainty that one of the characteristics of BH society is the tendency to own real estate, which in the long-term results in a constantly high demand on the market.

Low interest rates and favourable financing are also one of the key factors favouring the real estate market. Housing loans have been offered for years at significantly lower interest rates compared to other categories of household loans. An identical trend was recorded in 2023 when, despite the increase, interest rates on housing loans remained significantly below other active interest rates (Graph 5). It should also be noted that the slight increase in interest rates did not reduce credit activity, so in 2023 the total amount of newly approved housing loans amounted to KM 554 million, which is 5.6% more than the amount of newly approved housing loans in 2022. Consequently, in 2023, 14.6% of newly approved loans to the households will be housing loans, as well as 8.0% of total newly approved loans. Data in the first quarter of 2024 confirm the trend of strong growth in housing loans, bearing in mind that during the first three months of 2024, the amount of housing loans increased by 24.2% on an annual basis. Additionally, as a positive segment related to financing conditions, we can point out that the amount of non-performing loans in this area is only 0.9%, which is the lowest NPL indicator of all categories of loans intended for households.

Graph TB 2.5: Interest Rates on Loans to Households and the Amount of New Housing Loans

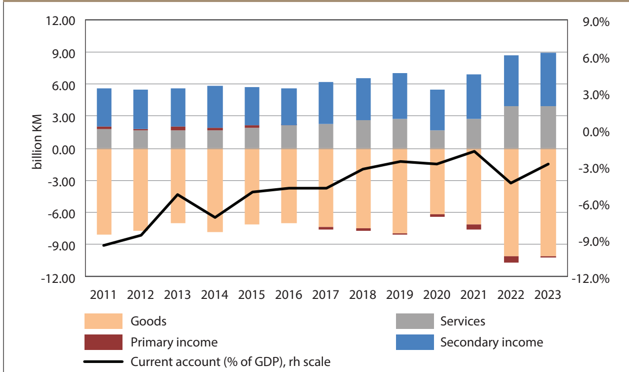


Source: CBBH

Taking into account all of the foregoing, the tendency of the households to own their own real estate, favourable financing conditions, and the attractiveness of investing in real estate due to the lack of alternative investment opportunities, it can be expected that the real estate market will remain stable in 2024, and a positive impact should also be recorded on the supply side and on the demand side. Such positive expectations are additionally strengthened by macroeconomic projections for the next period, with somewhat stronger GDP growth in 2024 compared to 2023, weaker inflationary pressures, and strengthening of the labour market through net wage growth and unemployment reduction. In this regard, in 2024, an increase in the number of transactions, as well as real estate prices, could be expected compared to 2023, and a more significant reversal of the trend could occur in the event of extraordinary global macroeconomic shocks that would spill over to Bosnia and Herzegovina market as well.

In 2023, the current account deficit recorded a decrease compared to the previous year. Despite this, the external vulnerabilities of the country arising from the balance of payments position were not significantly mitigated, given that during the year there was a significant outflow of funds from the financial account of the balance of payments, caused by increased investment of resident sectors into foreign assets. The aforementioned trends were ultimately reflected in the level of foreign exchange reserves, which in the first quarter partially participated in covering the current account deficit. The deficit on the current account of the balance of payments at the end of 2023 amounted to KM 1.38 billion (2.81% of GDP) and was lower by 1.52 percentage points compared to the previous year. Increased external vulnerabilities in the country's balance of payments position, caused by the slowdown in external demand and the decline in the volume of BH's foreign trade exchange with the rest of the world, were mitigated to a significant extent by the reduction in domestic import demand, and looking at the structure of the current account, the goods deficit remained at approximately the same level as in the previous year (Graph 2.5). At the same time, a slight improvement in the key surplus categories, services and secondary income contributed to the mitigation of the current account deficit in 2023. In the secondary income account, a net inflow growth of 3.6% was recorded compared to the previous year, which was largely contributed by the previously mentioned increase in inflows based on remittances from abroad. On the services account, the increase in inflows based on the arrivals of foreign tourists on the demand side is particularly noteworthy, but at the same time a significant increase in debit transactions was recorded, and in the end a modest growth of net inflows based on services of only 1.1% was achieved. In addition to the growth of the net inflow of the main surplus categories, a significant impact on the reduction of the current account deficit in 2023 was the reduction of the deficit on the primary income account (76.4%), which was mostly contributed by the growth of the investment income that the Central Bank of BH obtained from foreign exchange reserve investments.

Graph 2.5: Structure of BH Current Account

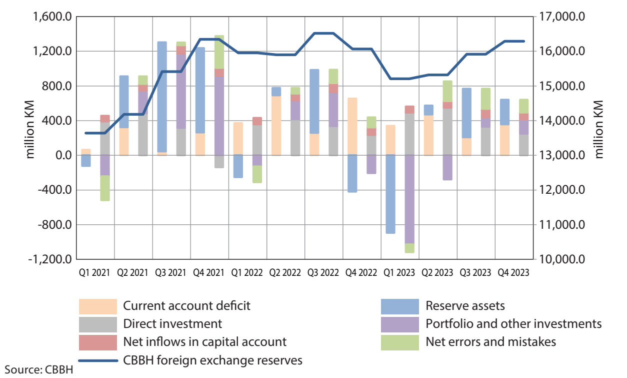


Source: BHAS, CBBH

On the other hand, in the structure of financing sources, pressure was recorded on the side of the financial account of the balance of payments, where a significant decrease in net inflows (63.8%) was registered compared to the previous year. Although net inflows on the basis of direct foreign investments were realised in a record amount of KM 1.63 billion, a significant net outflow of funds was recorded within the portfolio and other investments, caused by the strong growth of interest rates on foreign markets, which is why the investment of resident sectors in foreign assets exceeded the amount of foreign borrowing in 2023. As a result of the increase in investments in foreign debt securities, which were mostly realised by banks and other financial institutions, net outflows based on portfolio investments were recorded in the amount of KM 428.8 million. Also, net outflows were recorded within other investments due to the increased investment of banks in short-term deposits of non-residents, and the total other investments of resident sectors in financial assets amounted to KM 1.07 billion. At the same time, the realised inflows on the basis of foreign borrowing were significantly lower, which was largely influenced by the decrease in borrowing by the government sector from international creditors and the decrease in deposits from non-residents at commercial banks in BH. Also, foreign borrowing of the private sector abroad in the form of trade loans and advance payments was 4.1% lower than in the previous year, which is again a consequence of the decrease in foreign trade.

Net inflows on the financial and capital account of the balance of payments were lower than the current account deficit in 2023, however foreign exchange reserves partially participated in covering the current account deficit only in the first quarter of 2023, when the largest outflow of funds from the country was recorded (Graph 2.6). Due to the high value of the net inflow of funds on the net errors and omissions item, part of the current account deficit was compensated, and a slight increase in reserve assets was recorded on an annual basis.

Graph 2.6: Current Account Deficit Financing

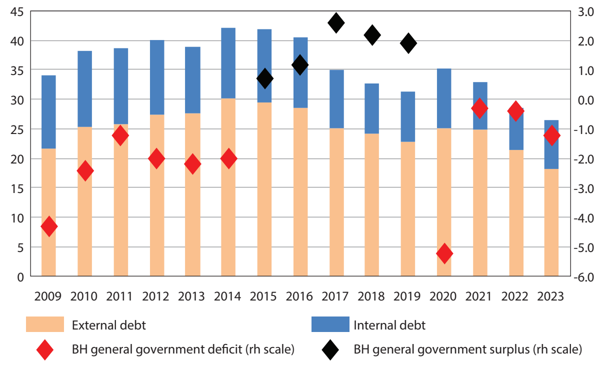


Source: CBBH

In the coming period, the current account deficit could be slightly reduced, given that, according to CBBH projections, the foreign trade exchange is expected to recover due to a slight increase in the export demand of BH's main foreign trade partners in 2024, while import growth will be slightly lower, and net exports should have a slight positive contribution to economic activity. Along with the similar assumed dynamics of the movement of the main surplus categories (services and secondary income), the abovementioned could ease the pressure on the current account deficit. However, the external vulnerabilities of the country could still remain elevated, if the inflows based on direct foreign investments and new borrowings abroad in the coming period are lower than the outflow of funds based on investments in foreign assets, which will continue to put pressure on the level of foreign exchange reserves in the country.

The general government sector recorded an increase in the fiscal deficit in 2023 due to a stronger growth of budget spending compared to the growth of budget revenues, but at the same time the share of public debt in GDP continued to decrease, and indicators of fiscal sustainability continue to indicate a low level of exposure to risks associated with fiscal policy. According to CBBH data, the general government sector collected a record amount of revenue of KM 20.3 billion in 2023, with total revenue increasing by KM 2.1 billion (11.5%) compared to the previous year. The most significant impact on the increase in the revenue side of the budget was the growth of revenues based on social contributions, which were higher by KM 928.4 million (14.3%), as a result of stronger growth in nominal wages on the basis of which social contributions are calculated, and a slight increase of employment in 2023. In addition to the strong growth of revenues from social contributions, collected tax revenues had an almost equally significant impact on the increase in the revenue side of the budget, which in 2023 was KM 869 million (8.8%). The main contribution to the growth of collected taxes was made by revenues from indirect taxes, whose growth in 2023 was also significantly influenced by increased inflation, a slight growth in private consumption, and the strengthening of economic activity in service activities, especially in the tourism sector. Revenues from indirect taxes amounted to KM 8.45 billion at the end of 2023, which is a growth of 7.2% compared to the same period of the previous year. Along with the growth in revenues from indirect taxes, there was also growth in revenues from direct taxes, as well as growth of other revenue categories. At the same time, the total expenses of the general government sector of BH recorded a stronger growth in the amount of KM 2.4 billion (14.1%), and at the end of 2023 they amounted to KM 19.2 billion. In 2023, entity governments continued with programmes of fiscal measures to support the households due to the increased level of inflation in the form of one-time cash payments to socially sensitive categories of the households, as well as through the increase of pensions and salaries in the public sector, as a result of which the two largest items of the budget expenses, expenses on the basis of social assistance and expenses on the basis of employee benefits, recorded a significant growth of 21.2% and 14.1%, respectively, compared to the previous year. Investments in fixed assets (net purchase of non-financial assets) amounted to KM 1.7 billion, and the sector of the general government of BH recorded a fiscal deficit at the end of 2023 in the amount of KM 600.5 million or 1.23% of GDP (Graph 2.7).

Graph 2.7: BH Public Debt and General Government Balance (% of GDP)



Source: MFT BH, BHAS, CBBH

The total public debt of BH at the end of 2023 was KM 12.95 billion[8] or 26.5% of GDP. Compared to the previous year, the public debt recorded a slight decrease of 0.5%, with the fact that this year there was a change in the structure of the public debt in terms of a significant reduction in external indebtedness in BH, with a simultaneous increase in internal indebtedness. The external debt of BH[9] at the end of 2023 amounted to KM 8.92 billion and recorded a decrease of KM 889.5 million (9.1%) compared to the previous year. In 2023, there was no significant increase in capital investments, and similar to the previous year, there were no significant withdrawals of funds from foreign creditors, which, in combination with a significantly higher repayment of external debt, resulted in a reduction of BH's external indebtedness. On the other hand, as a result of the growth of current consumption and the continuation of the implementation of fiscal measures aimed at mitigating the effects of high inflation and providing assistance to the most vulnerable categories of the households[10], at the same time with lower revenue growth, entity governments had an increased need for budget financing, which led to a significant increase in internal indebtedness in Bosnia and Herzegovina. According to the data of the MFT BiH, the internal debt of the governments in BH at the end of 2023 amounted to KM 4 billion and an increase of KM 824.5 million (25.7%) was recorded compared to the previous year. Entity governments borrowed the most on the domestic capital market, and during 2023 the two BH entities issued a total of KM 1.26 billion in debt securities, which is twice the value of the issue compared to the previous year[11]. Debts of entity governments on the domestic market in 2023 were realised with higher interest rates compared to previous years. As in previous years, the entity governments are still the main drivers of activity on the domestic capital markets, and the increase in public issues on the primary market of public debt was also reflected in the significant growth of turnover on the BH stock exchanges, which in 2023 was higher by 37.4 % compared to the previous year.

The banking sector is still one of the largest creditors of the government sector, and the total exposure of the banking sector to all levels of government increased in 2023 based on the purchase of securities, while loans to governments continued to decrease slightly in this year as well (Table 2.1).

Table 2.1: Commercial Banks' Claims on Government Sector
(million KM)

Claims	2019	2020	2021	2022	2023
Central government	**0.1**	**11.6**	**16.1**	**8.9**	**5.9**
Loans	0.0	11.6	16.1	8.9	5.9
Securities	0.1	0.0	0.0	0.0	0.0
Entity level government	**2,006.8**	**2,439.4**	**2,474.8**	**2,554.7**	**2,764.4**
Loans	580.1	605.7	584.6	517.8	463.2
Securities	1,426.6	1,833.7	1,890.1	2,036.9	2,301.2
Canton government	**127.2**	**90.0**	**134.8**	**146.0**	**203.7**
Loans	114.5	80.9	125.7	146.0	203.7
Securities	12.7	9.1	9.1	0.0	0.0
Municipality government	**308.7**	**350.7**	**332.1**	**340.3**	**328.2**
Loans	297.7	341.0	323.8	333.5	323.3
Securities	11.0	9.8	8.4	6.8	4.9
TOTAL	**2,445.6**	**2,891.7**	**2,957.8**	**3,050.0**	**3,302.2**
(% of total assets)	7.0	8.2	7.8	7.8	8.0
Loans	992.3	1,039.2	1,050.2	1,006.3	996.1
(% of total assets)	2.8	2.9	2.8	2.6	2.4
Securities	1,450.4	1,852.6	1,907.6	2,043.7	2,306.1
(% of total assets)	4.1	5.2	5.0	5.2	5.6

Source: CBBH

In 2023, the share of public debt in GDP continued to decrease, which, according to the Maastricht criteria (although they are not directly applicable, nor are the data necessarily comparable completely), places BH among moderately indebted countries. At the end of 2023, the share of public debt in GDP was 26.5%, and it was lower by 2 percentage points compared to the previous year, following the nominal growth of GDP. At the end of 2023, the net foreign exchange reserves of the CBBH amounted to KM 16.29 billion and recorded a growth of 1.4% compared to the same period of the previous year. Due to a significantly higher amount of external debt repayment compared to the previous year (Graph 2.8), as well as a slight increase in the share of debt with a variable interest rate in 2023, an increase in external debt servicing costs was recorded.

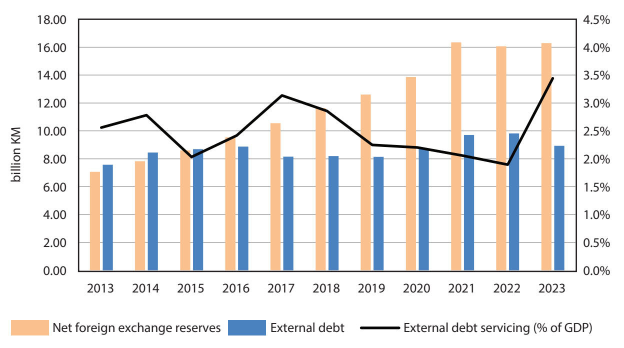
8 Source: MFT BiH, Information on Public Indebtedness of BiH as of 31 December 2023.

9 The external debt of BH includes the external debt of the institutions of BH, the external debt of the FBH and RS Entities, the external debt of the Brčko District and the external debt of local self-government units.

10 Detailed description in the Annual Report of the CBBH for the year 2023, Text box 2.

11 The amount includes the value of bonds and treasury bills of FBH and RS on the domestic capital markets.

Graph 2.8: Foreign Exchange Reserves and External Debt



Source: BHAS, CBBH, MFT BH

The international credit agency Standard and Poor's (S&P) increased the credit rating of BH in 2023 from level "B" to level "B+", with a stable outlook, while in accordance with the assessment of the international rating agency Moody's Investor Service, the credit rating of BH was maintained at level "B3" with stable prospects. According to the analyst's assessment, despite internal and external challenges, the economy of BH proved to be relatively resilient during 2023. In February 2024, the S&P agency confirmed the credit rating of BH from 2023. The continued slowdown in inflation is expected to have a positive impact on real wage growth and private consumption in the coming year, and planned investment projects in the field of energy and road construction should support economic growth over the next few years. According to analysts from S&P, an increase in the credit rating may occur if political decisions based on consensus are reached, which, in the medium term, could accelerate reforms and economic growth.

Fiscal sustainability risk indicators point to a low level of financial stability risks coming from the Government sector. Despite the increased level of overall macroeconomic risks, in 2023, most indicators of fiscal stability recorded an improvement in value and were in a safe zone according to the defined reference levels (Table 2.2). The exception to the safe zone is the cyclically adjusted primary balance (expressed as a percentage of potential GDP), which is quite expected given the increase in the realised deficit of the BH general government sector in 2023. In order to compensate for the increase in budget expenditures, entity governments in Bosnia and Herzegovina had an increased need for financing, which they mostly realised through borrowing on the domestic capital market. At the same time, in 2023, due to the absence of a significant withdrawal of funds from foreign creditors and a significantly larger amount of servicing or principal repayment of foreign loans, a decrease in external and total public indebtedness was recorded in BH. Thus, the ratio of public indebtedness expressed as a percentage of GDP was reduced by 2.1 percentage points and at the end of 2023 it is in a safe zone, well below the upper limit of the reference level of fiscal sustainability indicators. In 2023, the implied interest rate on the debt of the Government sector is deep in negative zone, and compared to the previous year, it further decreased, which indicates that the exposure of public finances to risks was also lower than in the previous year. As a reflection of the still elevated level of inflation, the implicit interest rate, which is reduced by the GDP deflator, was also negative in 2023, while the average five-year growth rate of real GDP, which also includes projections for the next two years, was higher compared to the previous year, which further reduced the value of the implicit rate this year. Due to the reduction of debt denominated in other currencies except the euro, exposure to currency risk continued to decrease in 2023. Also, the average maturity of the public debt is slightly higher than in the previous year, which means that the risk of refinancing is slightly reduced compared to the previous year. Since there were no significant withdrawals of long-term funds from international creditors in 2023, an increase in short-term external debt in relation to foreign exchange reserves was recorded.

Table 2.2: Indicators of Fiscal Sustainability Risk

Indicator	Safe area	Benchmark level	Level in BH	Changes compared to the previous year
r - g[1]	<	1.1	-5.03	-0.84
Public debt of general Government sector (% of GDP)	<	42.8%	26.5%	-2.1%
Cyclically adjusted primary balance (% of potential GDP)[2]	>	-0.50%	-0.9%	-1.2%
Financing needs (% of GDP)	<	20.6%	5.9%	2.1%
Share of short-term debt in the total debt, remaining maturity	<	44.0%	17.6%	5.8%
Debt denominated in foreign currency (non-euro)[3]	<	40.3%	20.8%	-4.5%
Average maturity of public debt (years)	>	2.3	6.6	0.29
Short-term foreign public debt (% of foreign currency reserves),remaining maturity	<	61.8%	9.2%	4.7%

Source: CBBH, MFT of BH, BHAS, BH Fiscal Council, IMF, Ministries of Finance of FBH and RS, calculation by CBBH

Notes:

1 r - Implicit interest rate on government sector debt minus the GDP deflator (moving average for five years); g - real GDP growth rate (moving average for five years)

2 For 2023, the IMF projection from April 2024 was used

3 Calculation of the public debt denominated in foreign currency does not include a part of the public debt denominated in euro due to the fixed rate of the local currency and euro.

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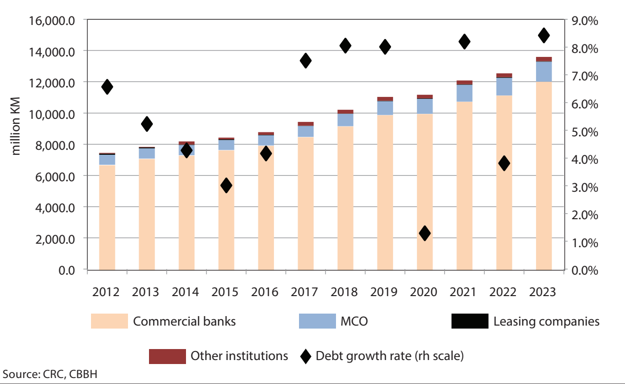
HOUSEHOLDS

3. HOUSEHOLDS

ncreased households' propensity to consume, due to the weakening of inflation pressures and the growth of real wages, also brought about an increased demand for loans and an increase of households' debt level, especially in the second half of 2023. Households continued to borrow most from commercial banks, with an increase of debt recorded in the categories of general consumption loans and housing loans. The downward trend of non-performing loans in the total loans of household sector continued, however, some households faced problems in regular servicing of their liabilities, which is reflected in the increase of loans at credit risk level 2 in the category of housing loans. The increased risk of borrowing at a variable interest rate during the strong growth of interest rates in foreign markets resulted in the continued declining trend of the household debt with a variable interest rate or fixation periods up to one year. At the annual level, there was an increase of the total household deposits, mainly holdings in transaction accounts, and short-term deposits.

In 2023, there was a continued upward trend of the household sector debt level, which was stimulated by increased consumption in this sector. The total household debt at the end of 2023, according to the CRC data, amounted to KM 13.6 billion, having increased by 8.4% compared to the previous year end. Traditionally, the largest part of household debt refers to loans with commercial banks, which in 2023 increased by 7.9% compared to the previous year. The debt with these financial institutions accounted for 88.3% of the total debt, thus continuing to contribute most to the growth of the total household debt. The household debt with microcredit organizations also increased, being higher by 13.8% compared to the previous year according to the CRC data. Household debt towards leasing companies in 2023 remained negligible (Graph 3.1).

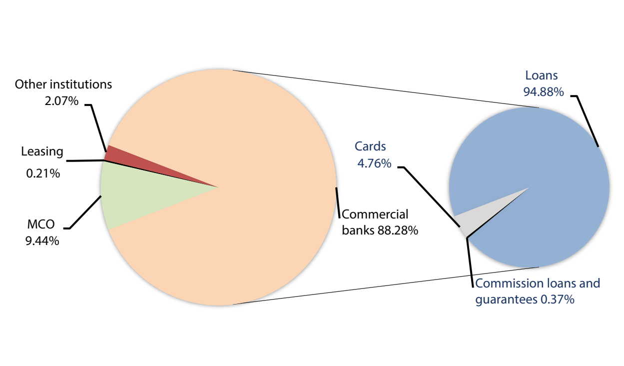
Graph 3.1: Household Debt towards Financial Institutions



Source: CRC, CBBH

The structure of household debt with commercial banks by type of debt did not change significantly in the previous period, however, increases were seen in all kinds of claims in 2023. The growth of the total claims on households mainly resulted from an increase of household debt on the basis of standard loans from commercial banks. These claims increased by 8.2% compared to the previous year, which was a continuation of their long-lasting upward trend. The share of debt based on standard loans in the total household debt stayed by far the highest at 94.9% (Graph 3.2).

Graph 3.2: Household Debt by Institutions and Type of Debt, in 2022



Source: CRC, CBBH

In 2023, a slight increase of the active number of payment cards was recorded. An increase of the total used part of the authorized overdraft amounts for cards was also recorded, as well as the average household debt per payment card. The number of registered payment cards in 2023 was higher by 1% compared to the previous year, which is mostly due to the increased number of deferred payment cards. The authorized overdraft amounts for all types of cards were increased, so the total authorized overdraft amount of all active cards increased by 6.3%. The used part of the authorized overdraft amount of all active cards increased by 2.7% compared to the previous year (Table 3.1)[12]. The average household debt on the basis of credit cards remained almost unchanged in 2023 compared to 2022, as that this form of borrowing carries high interest rates, which additionally increased in 2023, while the average debt level per debit cards increased by 3.1%. As the authorized overdraft amount per debit card is most often determined by the average monthly income amount, the used part of the authorized overdraft amount per card can be used as an indicator of the household consumption in relation to the income amount. The average debt per debit cards at 2023 end amounted to KM 532, which represents 42% of the average net wage in 2023.

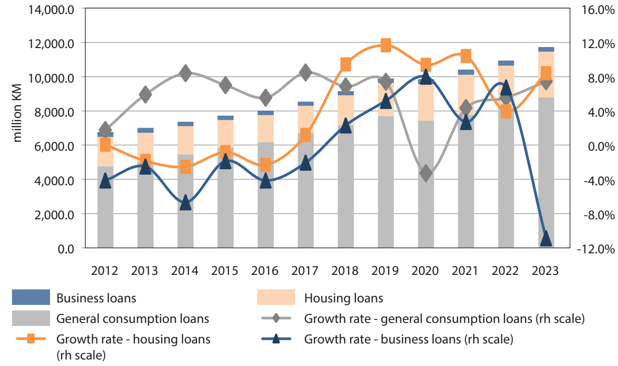
[12] *The analysis did not take into account debit cards without an authorized overdraft amount and for which there is no household debt, which were registered by banks in the CRC.*

Table 3.1: Claims on Households, Cards									in KM
	Number of active cards		Approved amount		Used amount		Debt per card		
	2023	Annual change	2023	Annual change	2023	Annual change	2023	Annual change	
Debit cards	684,630	-0.1%	967,331,120	7.9%	364,081,662	3.0%	532	3.1%	
Credit cards	262,559	1.0%	357,032,938	1.5%	165,554,677	1.3%	631	0.3%	
Deferred payment cards	160,942	5.8%	182,807,077	7.5%	41,208,516	6.0%	256	0.2%	
TOTAL	**1,108,131**	**1.0%**	**1,507,171,136**	**6.3%**	**570,844,855**	**2.7%**	**515**	**1.7%**	

Source: CRC

Observing the structure of claims on households, in 2023, debt level increase was registered for all types of loans by purpose, except in the category of loans for business activities. The same as in earlier years, loans for general consumption, including also claims based on all types of cards were predominant in the structure of claims on households. The structure of loans to households remained almost the same compared to the previous year (Graph 3.3), with loans for general consumption accounting for the largest share (75%) in the total loans to households, followed by housing loans (22.7%), with the remaining share referring to loans for business activities (2.3%). General consumption loans continued to grow in 2023, at the rate of 7.5%. The growth of general consumption loans, being stronger than in the previous year, was stimulated by a slight increase of consumer optimism, taking into account the inflation slowdown trend and improved labour market indicators in the form of real wage growth and decreased unemployment. In 2023, housing loans increased by 8.4% compared to the previous year, their share in the total household loans remaining at almost the same level as in 2022. The described developments in the real estate market (Text box 2) were influencing the growth of demand for housing loans in the previous several years. In addition, general consumption loans were decreasingly used in recent years to finance housing needs, which resulted in increased demand for housing loans. With the introduction of regulatory limits in terms of the duration and amount of general purpose and replacement loans, along with the continuous growth of real estate prices, general consumption loans have become less and less suitable for financing housing needs in the recent several years. In 2023, household debt based on loans for business activities recorded a decrease of 10.9%, the share in the total household debt decreasing by 50 basis points as well.

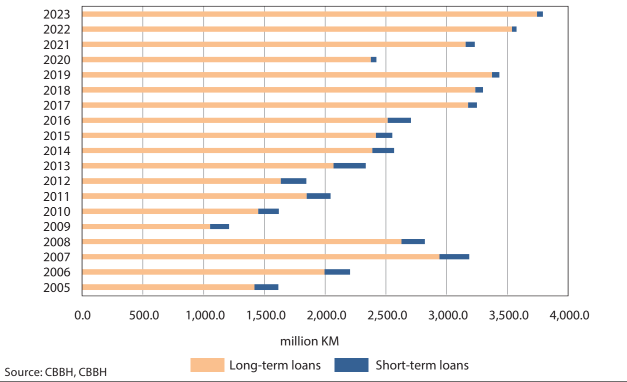
Graph 3.3: Loans to Households by Purpose and Credit Growth



Source: FBA and BARS, CBBH

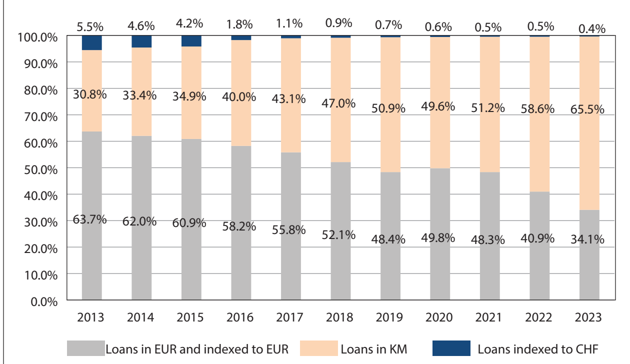
According to the CBBH data, KM 3.8 billion of new loans to households were granted in 2023, which represents an increase of 6.1% compared to the previous year, which indicates that bank lending was stable in the previous year. In 2023, the amount of household loans granted or rescheduled was higher by KM 216.7 million compared to 2022, with no visible change in demand related to loan maturities (Graph 3.4). However, although the decline of real net wages was stopped due to the decline of inflation pressures since the beginning of 2023 and the growth of nominal wages, due to the accumulated effects of the disposable income decrease from the previous year, and a slow increase of interest rates, the households with the lowest disposable income could face difficulties in servicing their liabilities in the coming period, which would result in increased credit risk in banks and tightening of lending conditions.

Graph 3.4: New Loans to Households



Source: CBBH, CBBH

Graph 3.5: Currency Structure of Loans to Households



Source: CRC

In the currency structure of loans to households, the share of loans indexed to euro in the total loans continued to decline. Although there is actually no risk of increased liabilities based on loans due to the exchange rate changes for those taking an indexed loan in the currency board monetary regime, such trends can be considered positive. In recent years, a downward trend of the share of loans denominated in foreign currency and indexed loans in the total loans to households was observed, continuing in 2023 (Graph 3.5). According to the data from the CRC, loans in EUR currency and loans indexed to EUR in 2023 recorded a decrease of 9.8%, while loans in KM recorded an increase of 21%.

In 2023, both short-term loans and long-term loans in all maturity categories increased. EUR denominated debt and EUR indexed debt of households decreased in almost all maturity categories, while KM denominated debt recorded a significant increase. Observing the maturity structure, households recorded the highest debt level on the basis of loans with contracted maturities over ten years, followed by loans with maturities from five to ten years (Table 3.2). The strong growth of loans in KM in the category of maturities over 10 years results from high demand for residential real estate and a strong growth of real estate prices, which was seen in 2023.

Table 3.2: Loans to Households, Maturity and Currency Structure

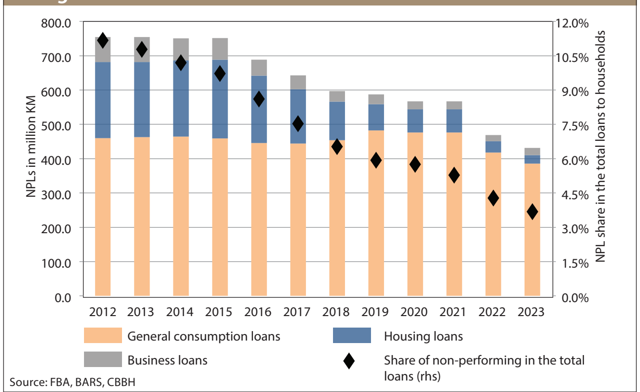
Maturity/Currency	Remaining debt and due uncollected principal, thousand KM							
	KM		Foreign currency loans and indexed loans				TOTAL	
			EUR		Other loans in foreign currency			
	2023	Annual change	2023	Annual change	2023	Annual change	2023	Annual change
Up to 1 year	66,679	9.8%	4,369	10.3%	0	0.0%	71,048	9.8%
1 - 3 years	235,544	9.5%	52,559	13.2%	3,671	3.7%	291,774	10.1%
3 - 5 years	590,869	11.8%	90,047	1.1%	23,026	-15.5%	703,941	9.2%
5 - 10 years	2,599,595	14.1%	675,485	-13.3%	13,350	-13.1%	3,288,430	7.0%
Over 10 years	3,969,149	28.6%	3,062,743	-9.6%	1,215	-31.8%	7,033,107	8.6%
TOTAL	7,461,836	21.0%	3,885,203	-9.8%	41,262	-13.9%	11,388,301	8.2%

Source: CRC

The level of non-performing loans in the total loans of the household sector continued to decline in 2023, for the eleventh successive year. The share of non-performing loans (NPLs) in the total loans at the end of 2023 decreased by 61 bp compared to the previous year, being 3.7% (Graph 3.6). In 2023, there was an increase of household loans, which, along with a decrease of the amount of non-performing loans, contributed to the improvement of the non-performing to the total loans' ratio. The improvement of the loan portfolio quality in the household sector, as in previous years, was the result of activities carried out by banks, such as accounting and permanent write-offs of non-performing loans and more efficient credit risk management. Observing the trend of non-performing loans by purpose, non-performing loans for general consumption at the end of 2023 decreased by 7.7% compared to the end of the previous year, non-performing loans for residential construction were lower by 24.7% in the observed period. Although non-performing loans for business activities increased by 15.7% compared to the previous year, these loans accounted for a very small segment of the total loans, continuously decreasing, which is the reason for such a significant increase. An alternative source of business activities funding are microcredit organizations, which provide greater flexibility in financing businesses compared to banks.

In 2023, a decrease of loans at credit risk level 2 was seen, in the amount of KM 42.6 million or 4.8%, but in the category of housing loans, the loans with higher credit risk increased by KM 18.4 million or 17.2%, indicating that the repayment of some loans was delayed, with credit risk in this category increasing.

Graph 3.6: Non-performing Loans in Household Sector by Categories

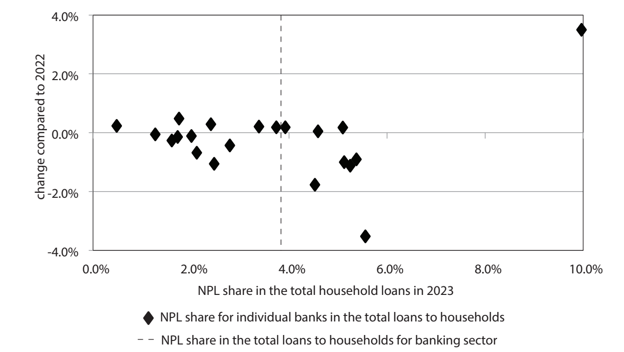


Source: FBA, BARS, CBBH

Observing the loan portfolio quality in household segment by individual banks, the share of non-performing loans in total household loans obviously decreased in 2023 with most banks in the sector, including the banks with the highest concentration of non-performing loans (Graph 3.7). However, some banks saw an increase of non-performing loans, as a result of the materialization of previously accumulated credit risk.

The increase of the ECB reference interest rate in 2023 affected the increase of the EURIBOR, which is an integral part of the interest rate on loans contracted with variable interest rates, but banks did not consistently adjust interest rates in the existing contracts, the interest rates increase in BH banking sector in 2023 being significantly lower than the increase recorded in the euro area countries. In addition to the fact that interest rates were not adjusted in the existing contracts, there was generally no strong transmission of monetary conditions from the EU to the domestic market, as evidenced by the level of interest rates that were contracted in 2023. However, in 2023, there was a slightly higher interest rate increase compared to the previous year, their further increase realistically expected, and consequently an increase of risks in the regular servicing of household liabilities in the medium term.

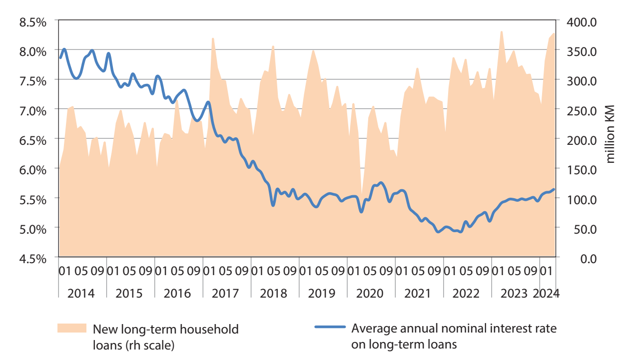
Graph 3.7: Non-performing in the Total Loans to Households, by Banks



Source: FBA, BARS, CBBH

Interest rates on household loans slightly increased in 2023 and the first half of 2024. The interest rates increase was reflected in the increase of the average annual nominal interest rate on long-term loans in 2023, which amounted to 5.44% and was higher by 38 basis points compared to the previous year. Interest rates continued to rise in 2024, with the weighted average interest rate on long-term loans rising by 20 basis points in April 2024 compared to the end of 2023 (Graph 3.8).

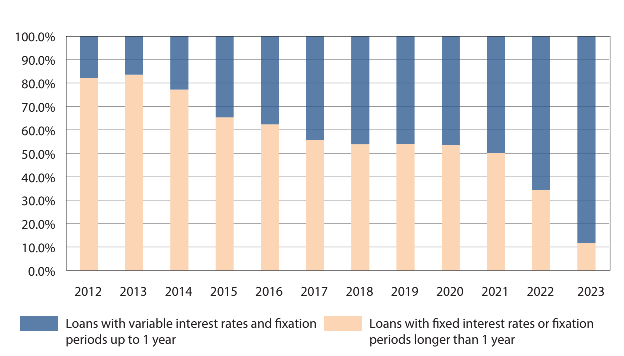
Graph 3.8: New Long-term Loans and Average Weighted Interest Rates



Source: CBBH

Interest rate risk in the household sector was mitigated, which can be concluded on the basis of increased lending with fixed interest rate or by extending the interest rate fixation periods. The downward trend of the share of loans with variable interest rates or fixation periods up to one year in newly approved household loans continued in 2023, but was significantly stronger than in previous years. The demand for fixed rate loans was growing due to the perception that interest rates will remain high in foreign markets for a rather long period of time, and at the same time the supply of these loans by banks followed the demand. In 2023, loans with variable interest rates or fixation periods up to one year accounted for 11.8% of the total new loans to households, which is lower by 22.5 percentage points than at the end of 2022 (Graph 3.9). The same trend continued in the first four months of 2024, and the share of loans with variable interest rates or fixation periods up to one year in newly approved loans to households came down to 8.3%. Although there are no data at the level of BH banking system, the data of the FBH Banking Agency are indicative, according to which the share of fixed interest rate loans in the total loans was 81.6% of the total portfolio at the end of the first quarter of 2024, whereas 18.4% of the total portfolio was contracted with variable interest rates.

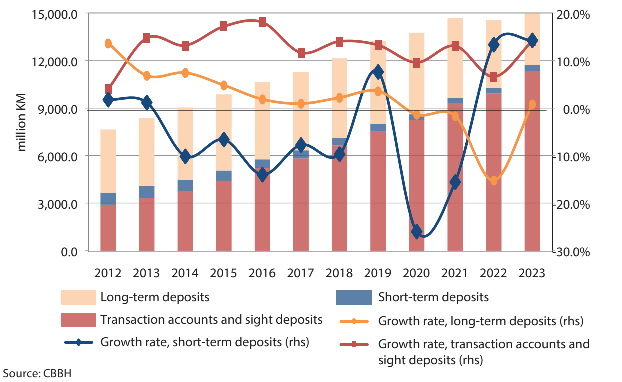
Graph 3.9: New Loans according to the Interest Rate Fixation Period



Source: CBBH

In 2023, there was an increase of the total household deposits, including funds in transaction accounts and short-term and long-term deposits. Total household deposits at the end of 2023 amounted to KM 16.1 billion. The dynamics of deposit growth returned to pre-2022 levels, when there was a significant withdrawal of deposits due to problems with Sberbank banks. The same as in previous years, the largest growth was recorded in transaction accounts and sight deposits, which reached the value of KM 11.3 billion, accounting for 70.5% of total household deposits. Growth of short-term deposits was also significant, while growth of long-term deposits was very low, as households, partly due to the rise of inflation that characterized 2022 and which, despite the downward trend, remained at slightly higher levels in 2023, and its effect on disposable income, decided to conclude new deposit contracts for longer terms less frequently (Graph 3.10).

Graph 3.10: Household Deposits by Maturity

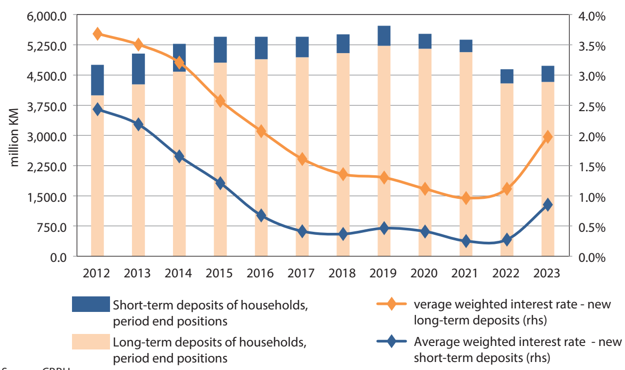


Source: CBBH

According to the data of BH Deposit Insurance Agency for 2023, there was a significant growth of the number of concluded contracts in the categories of deposits exceeding the insured savings deposit amount of KM 70 thousand. Regarding deposits in the category of over KM 70 thousand in the observed period, there was an increase of the number of concluded deposit contracts of 6.8% compared to 2022, and an increase of the term deposit amount of 9.5%. On the other hand, for deposits up to KM 70 thousand, there was an increase of the number of concluded contracts by 2.3%, while the total amount of term deposits increased by 10.4%. Of the total number of deposit accounts, only 1.5% refers to deposits over KM 70 thousand, which makes 43.5% of the total household deposits (KM 7 billion). On the other hand, regarding deposit accounts up to KM 70 thousand, including all household current accounts, deposit accounts with lower amounts of funds prevailed, indicating that only a small number of households had significant surplus of liquid assets.

Interest rates on household deposits, having been at exceptionally low levels in recent years, increased in 2023. The weighted average interest rate on household deposits with agreed maturities (term deposits) in 2023 was 1.82%, which was higher by 91 basis points than in 2022. The weighted average interest rate on long-term deposits was 1.98% and was higher by 86 basis points, while the interest rate on short-term household deposits was 0.85% and was higher by 57 basis points compared to the previous year (Graph 3.11). In 2023, several banks began to promote higher interest rates on term savings deposits, exceeding 3%, with special benefits, with the aim of encouraging the growth of term deposits. Regardless of the increase of interest rates on these deposits, term deposits' share in the total deposits stayed only 29.5%.

Graph 3.11: Term-deposits of Households and Interest Rates on Deposits



Source: CBBH

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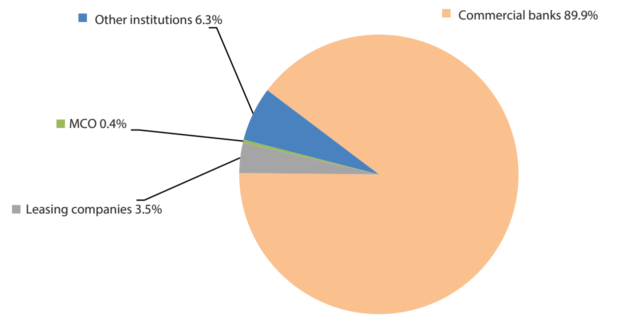
COMPANIES

4. COMPANIES

The total debt of the non-financial companies' sector towards domestic financial intermediaries recorded a significantly higher growth in 2023 compared to the previous year, despite increased risks from the domestic and international macroeconomic environment which this sector was exposed to. In 2023, despite the tightening of financing conditions, banks extended loans to companies at only slightly higher interest rates compared to the previous year. At the same time, the growth of external debt of companies continued, which reduces the companies' dependence on bank lending, but on the other hand increases their exposure to potential negative external influences that may lead to disruptions or sudden interruptions in financing. Operating income of non-financial companies and capitalization, as an indicator of business stability, indicate that companies managed to mitigate the risks arising from the weak domestic and international economic environment, so even predominantly export-oriented companies saw only a slight decline of operating income. Consequently, companies were able to service the existing liabilities regularly, which is reflected in the decline of the level of non-performing claims in banks and adequate capacities for further borrowing. In the period ahead, the key risks to the company's operations are the continued weakening of external demand, tightening of financing conditions, and still present inflation pressures, although much weaker than in the previous year. Also, an additional burden on the operations of companies will be the introduction of a carbon fee on export products to the EU, which could ultimately reduce the competitiveness of domestic export companies if they do not start adapting their business in time in accordance with the green economy standards.

The total debt of the non-financial companies' sector towards domestic financial intermediaries in 2023 increased compared to the previous year. According to data from the CRC, the total debt of legal entities towards all groups of financial intermediaries at the end of 2023 amounted to KM 14.4 billion, which is higher by 6.8% than in the previous year. Measured by the share in GDP, the total debt of companies towards all groups of financial intermediaries remained at almost the same level amounting to 29.5% of GDP. The corporate sector debt can be seen mainly as a debt towards banking sector. Taking into account the underdevelopment of other financial market segments, the primary source of funding for companies in BH are banks. The banking sector share in the total corporate debt accounted for even 89.9% of the corporate debt towards all groups of financial intermediaries in BH, borrowing in capital market remaining low (Graph 4.1).

Graph 4.1: Claims on Companies by the Type of Debt at 2023 End



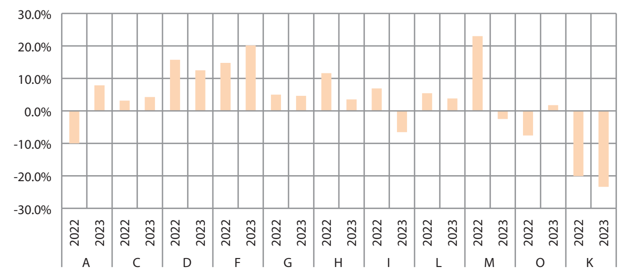
Source: CRC, CBBH

According to the CRC data, the total debt of legal entities towards banks in BH at the end of 2023 was 26.4% of GDP. In the structure of bank claims on legal entities, claims based on standard (short-term and long-term loans) and revolving loans accounted for the most of the total claims, while exposures based on guarantees, letters of credit and factoring accounted for a smaller part of the total claims, having no systemic importance. The share of legal entities' debt towards microcredit organizations and leasing companies in the total debt remained negligible.

Due to the increase of lending in the non-financial companies' sector, the total banking sector exposure towards legal entities recorded a higher growth compared to the previous year, although economic activity in most areas was weaker than in the previous year. The total banking sector exposure towards legal entities amounted to KM 11.8 billion and was higher by 3.9%, while the total exposure of banks to non-financial companies increased by 6.3% compared to the previous year. By economic activities, BH banking sector exposure stayed the highest towards companies from *trade* and *manufacturing industry*, which accounted for 53.3% of the total banking sector exposure towards all legal entities. In 2023, the most export-oriented manufacturing activities recorded a decline or very modest growth of gross value added due to the slowdown of the economic activities of BH main foreign trade partners and a decline of export demand. The companies from *manufacturing industry* were most affected, recording the strongest decline of industrial output and real economic activity (5.1%). Within manufacturing industry, the production of base metals decreased most as a direct consequence of the global decline of demand for steel, and a halt in the production of one of the largest iron production plants. However, the debt of companies from *manufacturing industry* increased by 4.3% compared to the previous year.

The short-term prospects for a stronger economic recovery of the main foreign trade partners are rather weak, and with weak external demand, a significant recovery of industrial production in BH cannot be expected. Such circumstances in the period ahead may result in export-oriented companies having difficulties in servicing their liabilities, and consequently the materialization of credit risk in BH banking sector, given the level of exposure to manufacturing industry. At the same time, *trade*, the activity which the banking sector is most exposed to, achieved a significant increase of gross value added, and companies in this activity increased their debt levels in banks by 4.6% on annual basis. Companies in *construction* sector recorded a significant increase of loan-based debt in banks by even 20.1%, although there was a slight decrease of gross value added in this activity. The increase of loan-based debt in this activity can be explained by the growth of the producer price index in construction and the growth of contractors' works prices in civil engineering compared to the previous year. For the sixth successive year, the negative trend of real economic activity growth in *mining and quarrying* continued, which was lower in 2023 by 4.5% compared to the previous year, as well as a decrease of debt in banks (2.8%), which could indicate a gradual contraction of this industry. The highest growth of gross value added was recorded in service activities, but only in some of them it was accompanied by an increase of debt towards banking sector. The highest percentual increase of loan-based debt was recorded in companies engaged in some service activities, such as activities related to a*rts, entertainment and recreation*, and companies from a*dministrative, support and service activities*. Their share in the total loan-based debt of companies was not significant (lower than 1%) and due to the low base, they recorded a very high credit growth. On the other hand, due to the strong expansion of tourism and increased volume of services, the highest growth of gross value added was achieved in the h*otel and catering industry* (16.5%), while at the same time the debt of companies from this activity decreased by 6.6%. Companies from this area reduced their debt with the banking sector, which may indicate that there were no significant new investments in 2023, and that growth was achieved from the existing capacities. For the second successive year, the decline of loan-based debt of companies from *the financial and insurance activities* continued (23%), which is mostly a consequence of the deleveraging of one bank towards non-resident banking institutions (Graph 4.2).

Graph 4.2: Annual Changes of Claims on Companies by the Selected Activities



Source: FBA, BARS, CBBH

Legend:
A - Agriculture, forestry, fishing
C - Manufacturing industry
D - Production and supply of electric energy, gas, steam and air conditioning
F - Construction
G - Wholesale and retail trade, repair of motor vehicles and motorcycles
H - Transportation and warehousing
I - Accommodation and catering (hotel and catering industry)
K - Financial and insurance activities
L - Real estate business
M - Professional, scientific and technical activities
O - Public administration and defence, mandatory social insurance

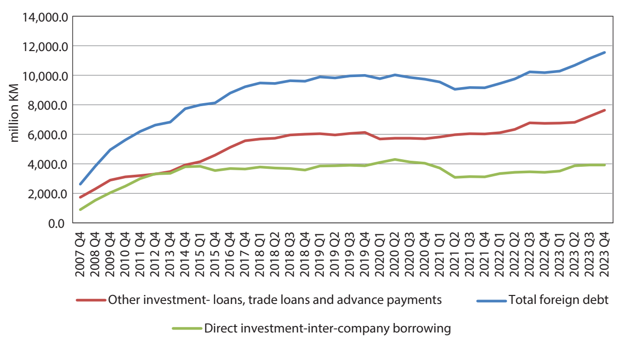
OTHER:
E - Water supply, sewerage, waste management, and environment remedial activities
J - Information and communication
N - Administrative and auxiliary service activities
P - Education
Q - Health and social care
R - Art, entertainment and recreation
S - Other service activities

The external debt of non-financial companies in BH continued to grow significantly in 2023 taking an increasing share in the structure of their total debt, which increases the risks to the company's operations due to the exposure to potential negative external influences. According to the CBBH data from BH International Investment Position Statistics[13], the total debt of non-financial companies to foreign countries, including non-profit institutions serving households (NPISH), at the end of 2023 amounted to KM 11.55 billion, which is higher by KM 1.38 billion or 13.6% than at the end of 2022. Of the total financial liabilities, 66% of the non-financial companies' debt relates to external debt based on loans and trade loans and advance payments, while 34% of debt refers to direct intercompany borrowing between companies. In 2023, the largest growth of external debt of companies was recorded on the basis of loans, which were higher by KM 889 million or 13.2%, while direct intercompany borrowing was higher by KM 491.2 million or 14.3%. The continuous upward trend of this sector's debt, which was strong during the previous eleven years, points out the fact that non-financial companies in BH meet the needs of their operations financing through external borrowing on a foreign market, finding flexibility that financing from

[13] *An international investment position is a statistical report that shows the value and composition of the financial assets of residents of an economy, which represents the claims of the observed economy on non-residents, and the financial liabilities of residents of an economy, which represent the liabilities of residents of the observed economy to non-residents.*

banks in the country may not provide. However, changes in the financing structure increase risks to corporate operations, especially in case of significant shocks in the international external environment, which may ultimately lead to disruptions or sudden interruptions in the financing of this sector (Graph 4.3).

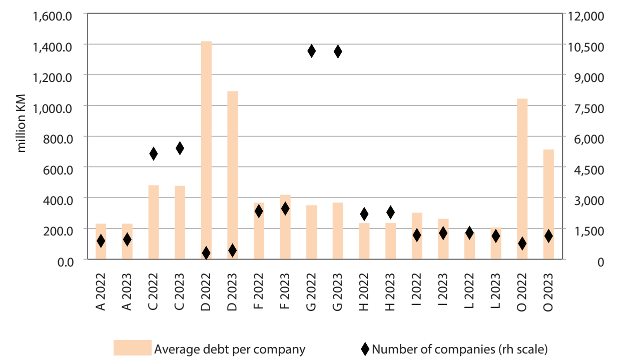
Graph 4.3: Foreign Debt of Non-financial Companies



Source: CBBH

Despite the increased level of macroeconomic risks in 2023 and the turbulence in the international environment in the previous four years, there were no significant changes in the number and average debt of companies in most activities, indicating their weak ability to adapt to changes in macroeconomic circumstances (Graph 4.4).

Graph 4.4: Average Debt of Companies by the Selected Activities in 2022 and 2023



Source: CRC, BHAS, CBBH

In 2023, there was an increase of debt based on standard loans in the corporate sector, with no change in the maturity structure, while the average maturity slightly increased. In financing their business activities, companies rely mostly on financing by standard loans. The total corporate debt based on standard loans at the end of 2023 was higher by 8.3% compared to the previous year. In the corporate sector, according to the agreed maturity, the same as in previous years, long-term loans prevailed, which at the end of the year accounted for 92% of the total loans. According to the CRC data, in 2023 there was a slight decrease of the debt amount based on standard loans to companies in the categories over 10 years as a result of uncertainty and increased risks regarding future macroeconomic developments, which had a discouraging effect on business entities regarding such long-term investments. However, a slight positive signal for the starting of long-term investments and economic activity growth came from potential acceleration of the negotiation process with the EU, taking into account that in March 2024, BH was granted the negotiating status by opening accession negotiations with the EU, which will bring opportunities to use a number of development programmes and grants. On the other hand, an increase of debt was seen in the other three categories of maturities, being most significant in the category of maturities from 3 to 5 years in the amount of 13.4%. The largest share in the total standard loans (57%) was taken by loans from 5 to 10 years (Table 4.1). Based on the data on the maturity structure of loans according to the remaining maturity, the average maturity increased slightly and amounted to 42.1 months.

Table 4.1: Loans to Corporates, Maturity and Currency Structure of the Remaining Debt

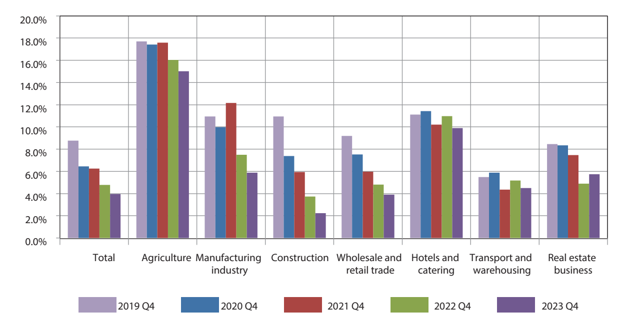
Maturity	Remaining debt and due uncollected principal					
	KM	Foreign currency loans and indexed loans				
		EUR	CHF	USD	KWD	TOTAL
Up to 1 year	471,098	246,184	14,235	30,911	0	762,428
1 to 3 years	1,145,339	275,800	0	0	0	1,421,139
3 to 5 years	1,225,124	713,814	0	0	0	1,938,938
5 to 10 years	1,992,594	1,760,217	327	0	459	3,753,598
Over 10 years	420,321	750,998	0	210	20	1,171,550
TOTAL	**5,254,477**	**3,747,013**	**14,562**	**31,121**	**480**	**9,047,652**

Source: CRC

According to the CBBH statistics, bank lending was stronger in the segment of long-term loans in the amount of KM 0.25 to 1 million. Also, the data indicate that the financing of larger investment projects in the sector of non-financial companies was slightly higher compared to the previous year, the amount of this type of loan staying at a modest level. **Less favourable macroeconomic environment did not result in a significant increase of systemic risks for the banking sector. Non-performing loans recorded a decline, which, with the debt growth, led to a continued decreasing trend of the share of non-performing loans in the total loans in the corporate sector in 2023. However, in some industries, there are indications of the beginning of credit risk accumulation, so prolonged macroeconomic weaknesses, further tightening of financing conditions and the introduction of cross-border CO_2 emissions fees to exporters could lead to an increase of corporate operating costs and result in the materialization of credit risk in banks.** The share of non-performing loans in the total loans in the corporate sector at the end of 2023 was 4%, which is lower by 0.8 percentage points than in the previous year. Observing the loan portfolio quality by activities on annual basis, almost all groups of economic activities recorded a decrease of non-performing loans in the total loans in 2023 (Graph 4.5). Also, a lower default rate in the corporate sector indicates that credit risk was not materialized.

However, observing loans by the credit risk level, the increased level of risk in macroeconomic environment was obviously partly transmitted to the operations of companies in *the construction* and *transport and warehousing* activities, which in 2023 recorded a significant increase of the share of loans at credit risk level 2 in the total loans. In the circumstances of the current inflation pressures, a continued increase of production costs for companies can be expected in the period ahead, which, along with weaker external demand, could be reflected in an increase of default rate and deterioration of the bank loan portfolio quality. An additional pressure on the increase of costs for companies exporting to the EU is the introduction of a carbon charge CBAM (Carbon Border Adjustment Mechanism) in early 2026, which is described in details in Text Box 3. This could contribute to an increase of credit risk arising from the non-financial companies' sector in medium term.

Graph 4.5: Share of Non-performing Loans in the Total Loans to Companies, by Activities

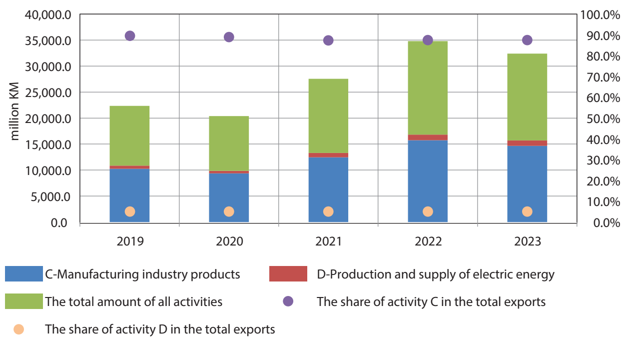


Source: FBA, BARS, CBBH

Text box 3: The Impact of the carbon fee introduction on the operations of companies and the economy in BH

The term climate change is most often described as global warming caused by industrial development with a consequent increase in greenhouse gas emissions. The largest share of greenhouse gases is carbon dioxide and methane, which are primarily produced by burning fossil fuels for production and energy purposes. Solving the problem of climate change implies the starting of a significant number of activities and measures that would limit the extent and degree of warming, and achieve adaptation to current and upcoming climate change. Accordingly, by signing the Declaration on the Green Agenda for the Western Balkans on 10 November 2020 in Sofia (the Sofia Declaration), BH committed itself to implementing measures in the field of climate change mitigation, energy transition, sustainable mobility and circular economy. Some of these measures include the introduction of a fee on emissions of the most important greenhouse gas, carbon dioxide and market models to encourage renewables, as well as the gradual revoke of subsidies for coal. In order to level the playing field for all companies and avoid the socalled "carbon leakage" due to the relocation of carbon-intensive industries outside the European Union, the EU is introducing a carbon fee CBAM (Cross Border Adjustment Mechanism) for products imported into the EU from countries that do not have a carbon dioxide emissions trading system in place, such as Bosnia and Herzegovina. The phased introduction of the carbon fee is planned to start from January 2026 and will be proportional to the amount of carbon dioxide emitted during the production of electricity and other products with a high degree of CO_2, emissions including indirect calculations of CO2 emissions in secondary production. The introduction or implementation of the CBAM mechanism on exporters from BH could have very negative consequences, taking into account the high percentual share of BH exports to the countries of the European Union (73.6%) and the large volume of carbon emissions in BH economy.

Graph TB 3.1: The Value of Exports in the Activities which Will Be Most Subject to the Implementation of CBAM Mechanism



Source: BHAS, CBBH

Analysing the structure of exports to the EU, of primary and secondary groups of products, which are subject to the implementation of the CBAM mechanism, it can be concluded that the strongest risks will be related to the operations of companies engaged in manufacturing industry, namely in the sectors of production of cement, iron, steel, aluminium, fertilizers and production and supply of electricity, bearing in mind their level of share in the total exports of BH. Also, the competitiveness of export prices in these sectors, if adequate decarbonization measures are not taken, will be seriously jeopardized, as the announced implementation of the CBAM mechanism in the EU member states will start from 2026 (CBAM fees will be equivalent to CO2 emissions of products from countries that have not started the process of implementing the EU ETS model). Table TO3.1 shows the most important export product groups by export value in the period from 2019 to 2023, with the exception of electric energy (which is shown separately in Table TO3.2), where all three export product groups are highly energy and carbon intensive.

Table TO 3.1: Survey of Export Values of BH Products Subject to Potential Implementation of CBAM Mechanism

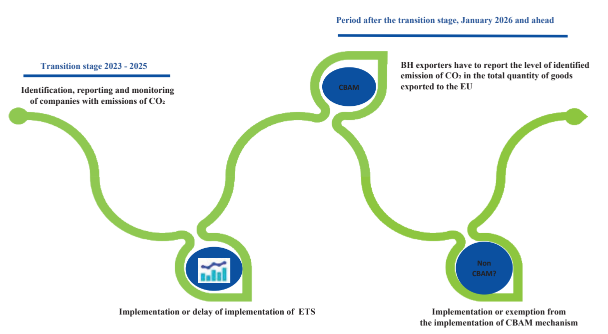
Year	2019	2020	2021	2022	2023
Base metals and base metal products	2,100,060	1,739,955	3,095,824	4,079,321	3,081,433
Electrotechnological equipment	1,590,204	1,582,664	2,042,610	2,484,672	2,740,229
Mineral origin products	1,070,043	876,080	1,412,180	2,020,733	1,837,540

Source: BH Agency for Statistics

The announced introduction of the CBAM mechanism from 2026 increases the risks to the business of companies in BH exporting to the EU, in the form of a potentially significant increase of decarbonization costs. Also, regulators will require banks in BH in the period ahead to take into account climate and environmental risks in all relevant phases of loan approval and credit risk management, and to adequately assess these risks, which means that when approving a new debt, the extent to which a particular company used fossil fuels will be considered, and in accordance with CO2 emissions, banks will set the price of borrowing. This can be an additional risk for companies in BH, reflected in higher interest rates on loans unless they undertake measures to decarbonize production in time.

In order to avoid potential negative consequences, BH, in cooperation with the Energy Community Secretariat, has begun preparations for the introduction of the Emissions Trading System (ETS). Emission Trading System). The introduction of the ETS will ultimately exclude the implementation of the CBAM measures on the exports from BH to the EU, with all the funds collected from the ETS system remaining within BH. At the same time, BH should introduce CBAM for those countries that do not have ETS in place in order to level the playing field with those of other countries. It is envisaged that the ETS model will be adopted in BH by the beginning of 2026, by which time other activities for the establishment of a functional ETS system should be implemented. This includes, among other things, a system for collecting data and calculating emissions for all installations that will be registered as those subject to ETS. All significant emitters of carbon dioxide, such as thermal power plants, heating plants with power exceeding 20 MW, cement plants, steel mills, coke industry, cellulose and paper factories and all plants that have fossil fuel boilers with the total power of 20 MW and more are subject to the ETS. The prices of emission allowances would initially be lower than in the EU, and would gradually be adjusted in accordance with a study prepared by the Energy Community Secretariat. In the first stage, the preparations are related to the establishment of detailed records of data necessary for the calculation and verification of CO2 emissions. On that basis, it will be possible to assess costs for emission fees after the ETS introduction. The assessment of these fees is an input for the development of a plan to reduce emissions with measures such as replacing fossil fuels with renewable energy sources and increasing energy efficiency.

Chart TB3.1: Forthcoming Activities, Opportunities and Challenges



Source: Energy summit in Bosna and Herzegovina 2023,
PPT "Overview of carbon pricing in Bosnia and Herzegovina", CBBH

It is worth noting that the implementation of the CBAM mechanism includes direct and indirect CO2 emissions, while the ETS system is based on identified installations and includes only direct CO2 emissions.

The funds raised from the sale of ETS certificates will be invested as earmarked funds into green transition to renewable energy sources and activities to raise energy efficiency in BH. In all of the above, key activities will be related to the transition of the electric energy sector due to the current high percentage share of thermal power plants in the total installed capacity of all electric energy sources in BH (Table TO3.2).

Table TB 3.2: Production and Exports of Electric Energy in BH

Year	2019	2020	2021	2022	2023
Electric energy production in BH (GWh)	16,074.02	15,390.67	17,055.44	15,035.96	15,821.70
Net exports (GWh)	6,568.84	7,327.44	8,197.66	6,853.90	7,886.41
Percentual share of BH thermal plants power within the total installed power of all electric energy plants in BH	48.32%	47.59%	46.83%	46.35%	45.24%

Source: The State Electricity Regulatory Commission

Conditional exemption from the implementation of CBAM mechanism on the export of electric energy from BH to the EU market after January 2026, and no later than the beginning of 2030, will be possible if:

a) BH signs an agreement with the EU accepting the obligation to implement the EU laws in the field of electric energy production, including regulations related to renewable energy sources, environmental protection and competition;
b) BH integrates into its national legislation the main provisions of the EU regulations related to the electric energy market, including the development of renewable energy sources and electric energy market connecting;
c) BH submits to the European Commission a Roadmap with a time schedule of implementation in which it will commit to climate neutrality by 2050 and accordingly,

develops and defines a long-term low-carbon development strategy, implements the obligations arising therefrom, and during the implementation of its Roadmap shows significant progress in harmonizing its legislation with the EU legislation, including the taxation of CO2 emissions in the electric energy sector, including the commitment that the ETS price for electric energy should be equal to the ETS price in the European Union, which must be established by 1 January 2030;

d) BH establishes an effective system for the prevention of indirect exports of electric energy to the EU from third countries that do not meet these conditions for exemption. The exemption can be withdrawn or revoked at any time if there are reasons to suspect that a country exporting electric energy to the EU is failing to meet its obligations or has not adopted an ETS emissions trading system identical to the EU ETS trading system by 2030.
One of the key documents listed in the conditions for a potential exemption from the implementation of the CBAM mechanism was prepared in mid-2023 under the title "Draft Integrated Energy and Climate Plan of Bosnia and Herzegovina for the period until 2030" (NECP BiH 2030).[14] The NECP BH is one of the most important strategic documents defining the energy transition process, with the ultimate goal of achieving climate neutrality of BH by 2050. This document describes the contribution to the achievement of the key common objective of the Energy Union, which is to provide secure, sustainable, competitive and affordable energy to all consumers, households and businesses.

In accordance with the implementation of the CBAM in its final implementation period (after the transition period), authorized representatives of the EU importers will purchase for certain goods CBAM certificates for greenhouse gas emissions in imported goods. Since the price of CBAM certificates will be derived from the price of emission units under the EU ETS, the rules on monitoring, reporting and verification of CBAM certificates will be such that the carbon price of imported goods into the EU will be equivalent to the price of carbon related to goods produced in the facilities covered by the EU ETS[15].

The total income of companies in 2023 were slightly higher compared to the previous year, however, due to decreased external demand that resulted in decreased exports, the income of companies in export-oriented activities declined.

After the significant growth of corporate income in 2022 (21.5%), brought about by strong price growth, in 2023, the total income of BH companies [16]was growing at a much slower pace (2.2%), compared to the previous year (Table 4.2). Due to the increased level of prices on one hand, and a slight recovery of personal consumption on the other, companies engaged in service activities recorded a significant increase of operating income. As a result of increasingly intensive tourist visits, the largest growth of operating income was seen by companies engaged in hotel and catering industry (22.5%). Also, a significant increase of income was achieved by real estate companies (20.1%). Companies engaged in wholesale and retail trade had the largest share of income in the total operating income of companies in BH (44.5%), however, due to the slowdown of private consumption growth, their growth was significantly slower compared to the previous year (4.9%). On the other hand, the slowdown of economic activity in the EU, as well as the persisting geopolitical tensions, were reflected in decreased export demand, resulting in a decline of operating income of export-oriented companies. Accordingly, companies in the field of manufacturing industry, accounting for a significant share in total operating income, in 2023, due to the industrial output decline, recorded a decrease of operating income of 4.3%.

Decreased value of electric energy exports resulted also in decreased income of companies engaged in production and supply of electric energy by 11.8%. Operating risks of export non-financial companies increased additionally due to unfavourable prospects in foreign trade for 2024, along with continued increase of geopolitical tensions, which might result in new price shocks and disruptions in the availability of some raw materials and intermediate products. The mentioned risks , in the period ahead, will continue to make pressure on operations of companies in production activities, which might result in continued decline of their operating income.

[14] *http://www.mvteo.gov.ba/publication/read/17072023; http://www.mvteo.gov.ba/data/Home/Dokumenti/Energetika/Nacrt_NECP_BiH_loc.pdf;;*

[15] *https://taxation-customs.ec.europa.eu/document/download/bc15e68d-566d-4419-88ec-b8f5c6823eb2_hr?filename=TAXUD-2023-01189-00-00-HR-TRA-00_0.pdf; Guidelines on implementing CBAM for importers of goods in the EU*

[16] *According to Dun & Bradstreet, a business and credit information company*

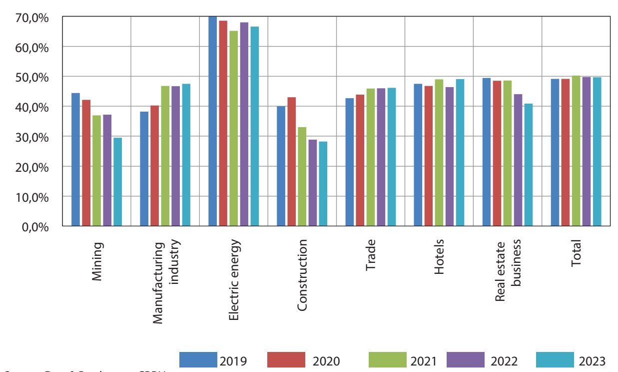
Table 4.2 : Operating Income of Corporates, per Activities

	2019	2020	2021	2022	2023
A- Agriculture	987.05	1,021.06	1,084.89	1,301.57	1,352.28
B- Mining	917.14	909.13	887.78	1,032.47	1,109.50
C- Manufacturing industry	17,661.09	16,302.43	20,686.81	26,095.19	24,958.32
D-Production and supply of electric energy	4,262.78	3,894.63	5,346.12	6,638.80	5,851.55
E- Water supply, waste water management	786.22	769.49	1,048.09	1,098.50	990.38
F- Construction	3,433.65	3,495.23	4,048.00	4,512.36	4,910.98
G- Wholesale and retail trade	31,751.30	28,814.68	34,750.30	42,198.29	44,297.70
H- Transportation and warehousing	2,832.17	2,492.72	2,895.83	3,667.06	3,724.30
I- Accommodation and catering	503.13	286.04	474.67	630.82	772.88
J- Information and communication	2,387.47	2,389.66	2,745.66	3,107.36	3,412.57
K- Financial and insurance activities	346.52	326.10	382.08	465.55	459.91
L- Real estate business	229.26	202.08	246.40	287.47	345.26
M- Professional, scientific and technical activities	1,688.99	1,663.35	1,919.64	2,054.84	2,304.89
N- Administrative and auxiliary service activities	485.77	442.88	565.58	724.89	874.93
O- Public administration and defence	69.73	83.02	106.40	79.72	32.53
P- Education	133.16	121.47	133.82	156.19	189.61
Q- Health and social care	1,680.42	1,764.36	2,041.26	2,309.22	2,677.89
R- Art, entertainment and recreation	492.02	434.81	605.26	770.12	941.32
S- Other service activities	96.46	97.40	108.26	127.53	146.76
T- Activities of households as employers	0.00	0.00	0.00	0.05	0.00
U- Activities of extraterritorial organizations and bodies	0.00	0.00	0.00	0.00	0.00
TOTAL	**70,744.31**	**65,510.53**	**80,076.84**	**97,257.99**	**99,353.54**

Source: Dun & Bradstreet (Company providing the business and creditworthiness information)

The corporate sector is relatively well capitalized. All the activities except construction and mining recorded a share of equity in total liabillities & equity higher than 30%. In most activities in 2023, a slight decrease of the share of equity in total liabillities & equity was seen compared to the previous year, which can be attributed to more intensive corporate borrowing this year (Graph 4.6). Companies operating in the field of construction are traditionally oriented towards bank loans as the most important source of funding for current operations or investment projects, and record the lowest share of equity in total liabillities & equity. In the last two years, in parallel with the increasing of these companies' debt in the banking sector, the share of equity in total liabillities & equity was reduced to a level below 30%, indicating continuing increased risks coming from this sector. This is supported by the recorded increased share of loans at credit risk level 2 in construction sector in 2023. Due to the several year lasting downward trend in the production of companies in the field of mining, their reduced profitability, a consequential significant decrease of the share of equity in total liabillities & equity to 29.4%. was recorded. On the other hand, companies operating in the hotel and catering industry continuously recorded good capitalization, and due to deleveraging to the banking sector in 2023, they also recorded an increase of the share of equity in total liabillities & equity. Companies engaged in manufacturing industry had a significant indicator of the share of owner's funds in liabilities, which allows this sector to mitigate risks. Although in 2023 these companies were exposed to risks reflected in a decrease of external demand and a decline of operating income, there was no decline of their capitalization. It can be concluded that companies in BH, despite the increased risks coming from macroeconomic environment, maintained an acceptable level of capitalization in 2023.

Graph 4.6: Share of Equity in Total Liabillities & Equity in Selected Activities

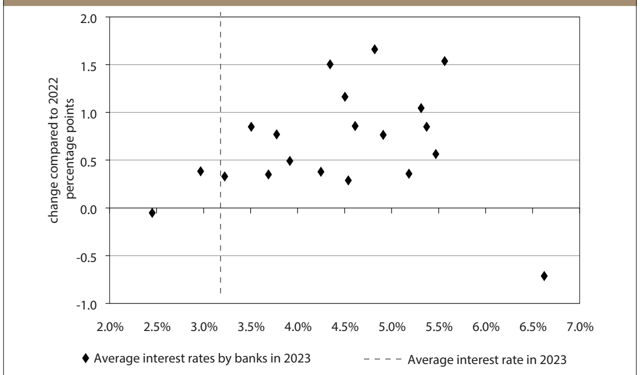


Source: Dun & Bradstreet, CBBH

In the circumstances of a very strong rise of interest rates in international financial markets, interest rates in the domestic market in the corporate sector did not rise significantly in 2023.

According to the CBBH data, the average interest rate[17] on newly granted loans to the non-financial companies' sector in 2023 was 4.09%, and was higher by only 72 bp than the average rate in 2022. Observing the borrowing costs by individual banks, a slight increase of the average interest rate was evident in almost all banks (Graph 4.7).[18] Although the corporate sector had seen a slow interest rate upward trend since the second half of 2022, continuing in 2023 and the first four months of 2024, it can be concluded that the strong growth of interest rates in the euro area so far had a limited effect on the growth of interest rates in BH, so the financing conditions for the corporate sector can still be considered highly favourable. The absence of a significant increase of interest rates in this sector can be attributed to the high competition of banks and the limited number of high-quality corporate clients that banks are willing to lend to. Both reasons equally make pressure on banks to keep interest rates low, which they are able to achieve at the moment as at the same time there is no stronger pressure to increase interest rates on their sources of financing.

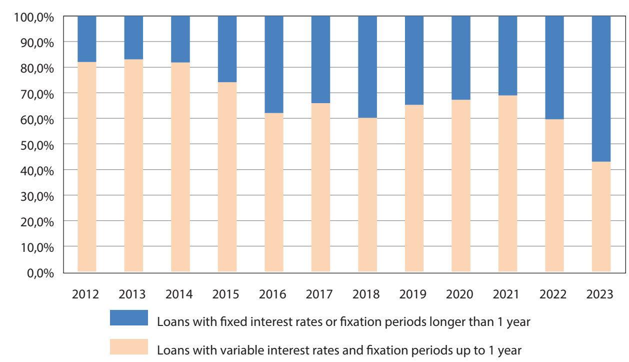
Graph 4.7: Interest Rates on Loans to Companies



Source: CBBH

Exposure to interest rate risk of the non-financial companies' sector in 2023 was limited due to a significant increase of corporate credit debt at a fixed interest rate. In the structure of newly approved loans in 2023, a decrease of the share of loans with variable interest rates, i.e. initial interest rate fixation periods up to 1 year, was recorded, their share being 43.04% (Graph 4.8). In order to reduce interest rate induced credit risk, banks continued to strongly increase lending at fixed interest rates in 2023. In the circumstances of continuing high inflation and high interest rates in international financial markets, companies were inclined to fix the costs at which they could borrow in the domestic market.

Graph 4.8: New Loans according to the Interest Rate Fixation Period



Source: CBBH

The corporate sector exposure to currency risk compared to the previous year did not change significantly. Currency risk under the current monetary regime is not a significant source of risk to companies' operations. At the end of 2023, corporate debt based on standard loans denominated in or indexed to euro amounted to 41.4% of the banks' total claims on the corporate sector. Compared to the previous year, their share decreased by 1%. At the same time, the share of loans granted in domestic currency increased, the residual debt based on these loans accounting for 58.1% of the total corporate debt at the end of 2023. The share of debt denominated in other currencies was only 0.5%. According to maturity categories, in the category of maturities of 5 to 10 years, the largest part of the debt was denominated in EUR, while in all other maturity categories, the largest part of the debt was denominated in KM.

[17] Interest rate statistics are regularly published on the CBBH website, and for the analytical purposes of calculating the average cost of borrowing of the corporate sector, calculation is made, i.e. weighting of interest rates by the volume of approved loans from all categories.

[18] At the end of 2022, Asa banka Naša i Snažna was merged with ASA Banka d.d. Sarajevo, and due to the merger process, ASA banka d.d. Sarajevo did not provide data on interest rates for December 2022, and therefore was not shown in the graph.

Centralna banka
BOSNE I HERCEGOVINE
Централна банка
БОСНЕ И ХЕРЦЕГОВИНЕ

FINANCIAL INTERMEDIARIES

5. FINANCIAL INTERMEDIARIES

The total assets of financial intermediaries at the end of 2023 recorded a growth of 6%. The banking sector kept the predominant share in the total assets (Table 5.1).

Table 5.1: The Financial Intermediaries Assets Value

	2021		2022		2023	
	Value, million KM	Share, %	Value, million KM	Share, %	Value, million KM	Share, %
Banks 1)	35,442.1	88.4	36,945.3	87.8	39,056.2	87.6
Leasing companies 1)	373.7	0.9	437.0	1.0	525.3	1.2
Microcredit organisations 1)	1,162.3	2.9	1,268.7	3.0	1,445.2	3.2
Investment funds 2)	947.1	2.4	1,069.3	2.5	1,041.7	2.3
Insurance and reinsurance companies 3)	2,190.1	5.5	2,335.0	5.6	2,496.8	5.6
Total	**40,115.3**		**42,055.4**		**44,565.1**	

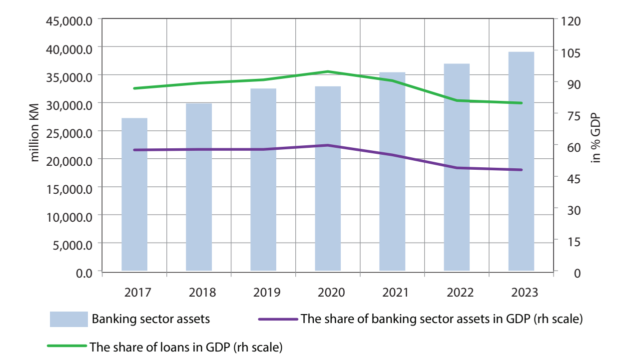
Source:
1 - FBA and BARS
2 - FBH and RS Commissions for Securities
3 - Entities' Agencies for Supervision of Insurance Companies, BH Insurance Agency, CBBH

5.1 Banking sector

Despite the increased level of risk in international and domestic macroeconomic environment, BH banking sector maintained a high degree of stability in 2023. Under the influence of increasing profitability, continuing trend of asset quality improvement, high liquidity and good capitalization, the overall assessment of stability indicators in 2023 improved compared to the previous year. In an environment of tighter financing conditions, bank lending activity was more significant than in the previous three years. Stronger growth of lending led to a slight reduction of the negative gap in the private sector loan to GDP ratio, but the financial cycle indicators in 2023 indicate that lending remained in the negative phase of the cycle with no tangible risks of overheating. In 2023, BH banking sector was not faced with a significant pressure of the growth of costs of predominantly domestic sources of financing (resident deposits), resulting in a limited growth of lending and deposit interest rates. The trend of the reference rete for average weighted banks' funding cost in BH shows that there were no significant changes in the costs of bank financing, i.e. the reference rete for average weighted banks' funding cost in BH remained at low levels. The maturity structure of the funding sources slightly improved due to banks' offers for term deposits at higher interest rates, but deposits in transaction accounts kept a dominant share in the sources of funds. In the period ahead, banks' profitability could be negatively affected by the asset quality deterioration associated with a weak recovery of economic activity and pressure on growing financing costs. Growing inflation pressures had no significant negative impact on the operations of private non-financial companies so far, but their performance in the period ahead could be affected by increased debt servicing costs and uncertain economic developments, which results in increased credit risk coming from this sector. The resilience of the household sector is supported by positive developments in the labour market, a slight increase of employment, and gradual growth of real net wages. However, the strong growth of lending in the household sector, continuing in the first quarter of 2024, contributes to the credit risk growth that could materialise in the event of repeated deterioration of macroeconomic conditions. The results of the stress test showed that the banking sector is able to absorb extreme macroeconomic shocks, as well as significant liquidity outflows.

The balance sheet amount of BH banking sector achieved moderate growth in 2023. Although tightened financing conditions were maintained, bank lending in 2023 was more significant than in the previous three years. The growth dynamics of the total loan portfolio intensified more obviously in the last quarter of 2023, with a similar pace of growth continued in the first quarter of 2024. In line with the banks' increased perception of risks coming from domestic and international macroeconomic environment, tightened standards in granting loans to companies and the household sector stabilized at a relatively high level throughout the observed period. The conditions for granting housing loans in the household sector, having been relaxed since the second quarter of 2022, were an exception. Despite the increased risk perception, most banks operating in the domestic market did not abandon the environment of relatively low interest rates, which mostly contributed to the total lending growth. However, the growth of the total assets and loans in 2023 was lower than the growth of nominal GDP, and the share of banking sector assets and loans in nominal GDP decreased slightly compared to the previous year (Graph 5.1).

Graph 5.1: Assets and Loans in Per Cents of GDP

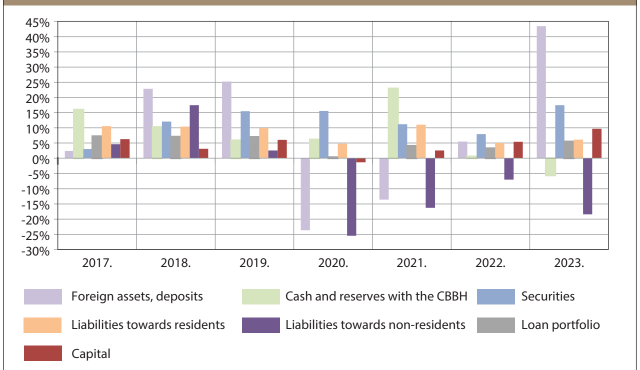


Source: FBA, BARS, BHAS, CBBH

The dominating balance sheet amount growth generator remained the growth of domestic sectors deposits, with deposits of private non-financial companies and household deposits making the largest contribution to the balance sheet amount growth in 2023. At the end of the year, the total liabilities to residents increased by 6.1%, with the level of deposits of government institutions and public companies decreasing compared to the previous year. On the other hand, for the fourth successive year, the decrease of liabilities towards non-residents continued (-18.4%), which confirms that domestic sources of funding in the banking sector are sufficient to meet the existing financing needs of all sectors of the economy in the current circumstances.

In 2023, the key developments in banks' assets, in addition to the moderate growth of the loan portfolio of 5.5%, include a significant increase of funds in foreign bank accounts in the amount of KM 771.2 million or 43.4%, and the growth of the securities portfolio of 17.4%, which, as in previous years, was mostly achieved through bank investments in the Entity governments' securities, with a significant increase of investments in non-residents' securities continued this year. Within liquid assets, cash and reserves with the CBBH decreased compared to the previous year, while the liquid assets growth was mostly achieved on the basis of an increase of deposits with banking institutions abroad (Graph 5.2).

Graph 5.2: Changes of the Most Important Items of Banking Sector Balance Sheet

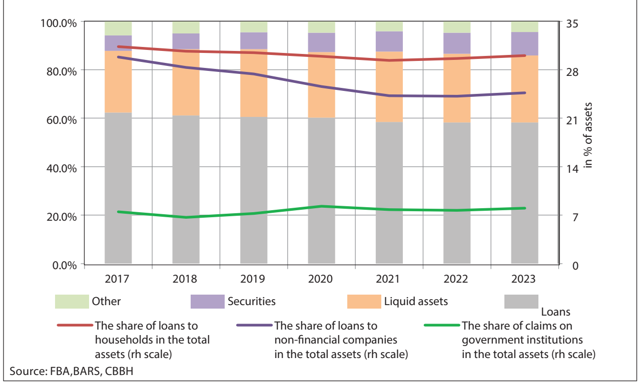


Source: FBA, BARS, CBBH

In 2023, overall lending, especially lending to private sector, accelerated, despite operating in circumstances of increased level of risk in macroeconomic environment. The annual credit growth rate was the highest in the previous four years, coming close to the pre-pandemic level. In the conditions of high inflation, which affected a stronger credit growth, the acceleration of lending was also favoured by the interest rates on newly approved loans, staying at relatively low levels throughout 2023, and growth of demand for loans stimulated by a slight recovery of personal consumption.

The recorded credit growth amounted to KM 1.23 billion or 5.5%, the share of loans in the total banking sector assets remaining at approximately the same level as in the previous year (Graph 5.3). The total loans at the level of BH banking sector amounted to KM 23.5 billion, and of the total loans, KM 11.73 billion or 50% were loans to households; KM 9.64 billion or 41% were loans to private non-financial companies, while KM 814 million KM or 3.5% of total loans were loans to government institutions. The annual credit growth rate of the private non-financial companies' sector was 7.9%, which can be considered moderate credit growth in the conditions of increased inflation. Compared to the previous year 2022, when the annual credit growth rate of the private non-financial companies' sector had been only 3.9%, in the conditions of strong inflation, lending in this sector was much stronger in this year. According to the data from the Bank Lending Survey, tightened financial conditions for short-term and long-term loans to companies stabilized at a relatively high level throughout the observed period, in line with the increased perception of risk in macroeconomic environment, the annual credit growth rate of private non-financial companies' sector exceeding the expectations.

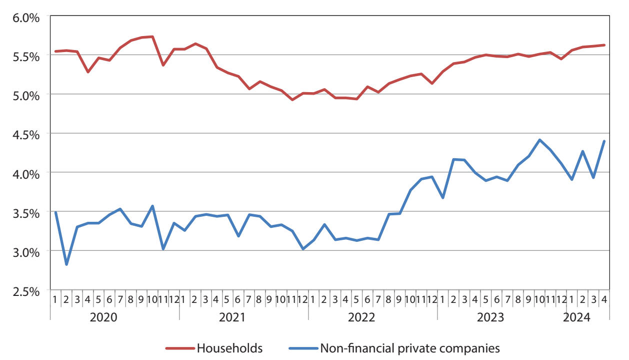
Graph 5.3: Banking Sector Assets



Source: FBA,BARS, CBBH

The strong growth of interest rates in the euro area market, in the period after the ECB began implementing restrictive monetary policy, did not significantly spill over into financial conditions in BH market, the growth of both lending and deposit interest rates in 2023 being quite limited. In 2023, the weighted average interest rate on loans to households increased by 38 basis points to 5.46%, while the weighted average interest rate on loans to private non-financial companies increased by 72 basis points to 4.09%. In the first four months of 2024, slow interest rate growth continued, by additional 14 basis points on loans to households and by only 4 basis points on loans to companies compared to the average interest rates in 2023 (see Graph 5.4).

Graph 5.4: Average Weighted Interest Rates on New Loans

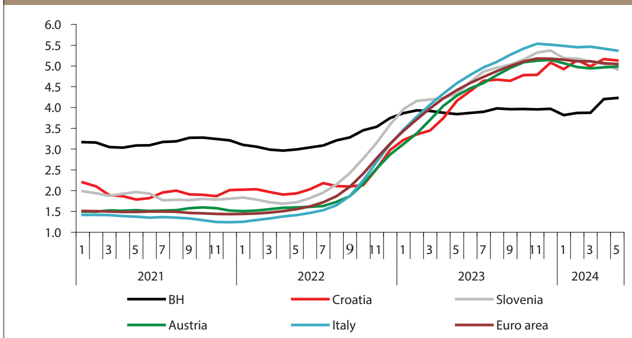


Source:CBBH

Although the pressures to increase interest rates in BH bank market were present since the beginning of the ECB interest rate increase, a comparative analysis of interest rate trends in BH, the euro area and the selected euro area countries where majority foreign-owned banks come from, shows that the intensity of the growth of lending and deposit interest rates in BH was not even close to the interest rate growth in the observed euro area countries, with significant differences in the adjustment to monetary conditions among these countries existing as well (see Graph 5.5). Graphs 5.5a and 5.5b show the trend of weighted average interest rates on newly approved loans to non-financial private companies from the beginning of 2021 to May 2024 for the loans in the category over EUR 0.25 million to EUR 1 million, and loans in the category over EUR 1 million. Small and medium size companies mainly use loans in the first category, while loans over EUR 1 million mostly suit the needs of the corporate sector of companies. The graphs show that interest rates on loans to companies in the selected euro area countries were lower by 1.5 percentage points on average than in BH before the start of the ECB restrictive monetary policy implementation. From October 2022, a stronger interest rate growth in the euro area countries began, which did not take place in BH market. At the end of 2023, interest rates in the euro area were higher by 1.3 percentage points on average. Interest rates on household loans showed very similar trends, the differences in the level of interest rates in BH and the euro area being more significant in this category of loans. Before the start of the ECB restrictive monetary policy implementation, interest rates in the euro area were lower by 3.4 percentage points on average than in BH, these differences gradually decreasing by the end of 2023, the interest rates on household loans in some EU countries still being lower than the average interest rates in BH (Graphs 5.5c and 5.5d).

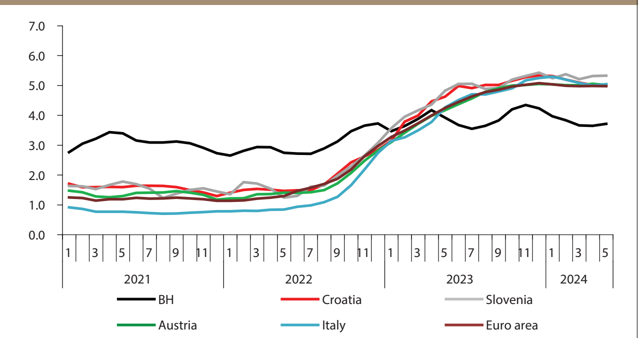
Graph 5.5: Comparative Survey of Trends of Lending Interest Rates in BH and Selected Countries of Euro Area

Graph 5.5a: Average Weighted Interest Rates on Loans to Non-financial Private Companies (over EUR 0.25 million to EUR 1 million),Quarterly Moving Average



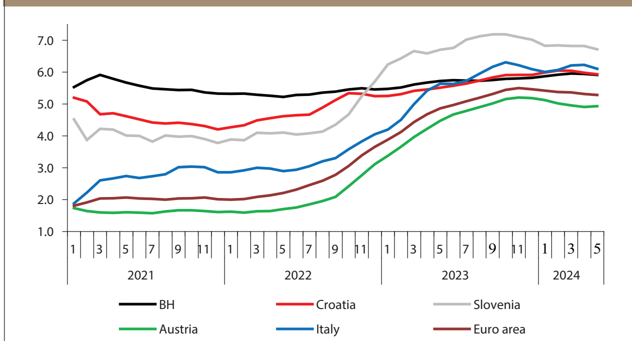
Source: ECB, CBBH

Graph 5.5b: Average Weighted Interest Rates on Loans to Non-financial Private Companies (over EUR 1 million),Quarterly Moving Average



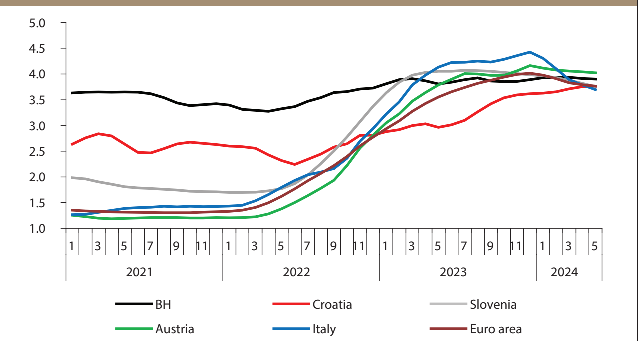
Source: ECB, CBBH

Graph 5.5c: Average Weighted Interest Rates on Other Loans to Households,Quarterly Moving Average



Source: ECB, CBBH

Graph 5.5d: Average Weighted Interest Rates on Housing Loans to Households,Quarterly Moving Average



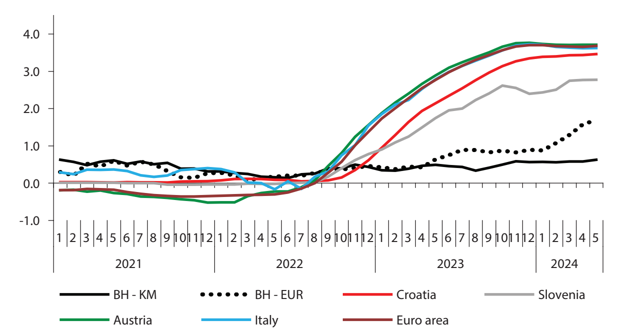
Source: ECB, CBBH

Domestic banks were able to maintain interest rates on loans in BH at relatively low levels during 2023 thanks to low financing costs, given that the structure of banks' sources is dominated by deposits of domestic resident sectors, which make up 97.9% of total sources of funds. Out of those, almost three quarters refer to deposits on transaction accounts and demand deposits, whose interest rates are still at extremely low levels[19]. Graph 5.6 shows the comparative trends of average weighted interest rates on time deposits of companies and households in BH, the euro area and selected euro area countries, for deposits with a maturity of up to one year, and deposits with a maturity of 1 to 2 years from the beginning of 2021 until May in 2024. In the structure of newly contracted time deposits, these two categories have the largest share in total time deposits in BH. Time deposits of companies up to 1 year make up 36.3%, and time deposits of companies from 1 to two years 37.3% of the total time deposits of companies in the observed period. Similarly, time deposits of households from 1 to two years make up 40.6% of total time deposits of households, while time deposits of up to 1 year make up a smaller part of 14.3% of total deposits of households in the observed period.

Given the trends of deposit interest rates, even greater deviations can be observed in the level of interest rates in Bosnia and Herzegovina and the observed countries of the euro area. The transmission of the ECB's monetary policy to interest rates in these countries was most effective when it comes to short-term company deposits, while in the case of other types of deposits, the transmission effects on interest rate growth were relatively limited and uneven. On the other hand, the growth of interest rates on short-term deposits of companies and households in BH in local currency was almost completely absent, while interest rates on short-term deposits of both sectors in EUR currency began to rise more noticeably from the beginning of 2023 and, at the end of the observed period, were on average, 1 percentage point higher than interest rates on short-term sources in domestic currency (Graphs 5.6a and 5.6c). Interest rates on time deposits with an agreed maturity of over one to two years in both sectors in domestic and EUR currency recorded a trend of gradual growth from the beginning of the fourth quarter of 2022, with the difference in the growth of interest rates between deposits in domestic and EUR currency being more evident with household deposits (Graphs 5.6b and 5.6d).

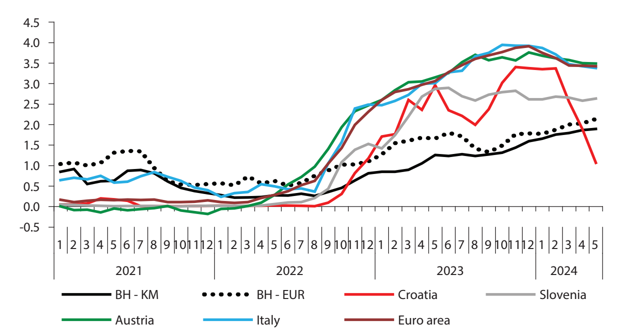
Graph 5.6: Comparative Survey of Trends of Deposit Interest Rates in BH and Selected Countries of Euro Area

Graph 5.6a: Average Weighted Interest Rates on Deposits of Non-financial Private Companies (maturity up to one year). Quarterly Moving Average



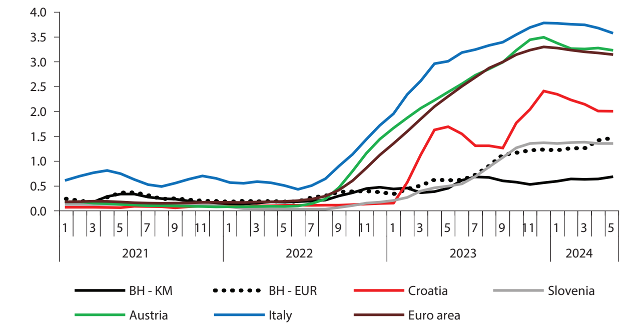
Source: ECB and CBBH

Graph 5.6b: Average Weighted Interest Rates on Deposits of Non-financial Private Companies (maturity over one and up to two years),Quarterly Moving Average



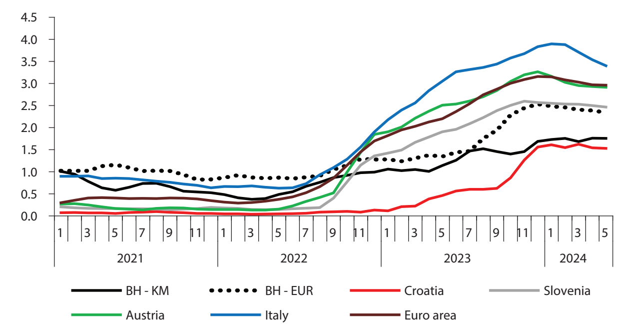
Source: ECB and CBBH

Graph 5.6c: Average Weighted Interest Rates on Household Deposits (maturity up to one year), Quarterly Moving Average



Source: ECB and CBBH

Graph 5.6d: Average Weighted Interest Rates on Housing Deposits (maturity over one and up to two years) ,Quarterly Moving Average



Source: ECB and CBBH

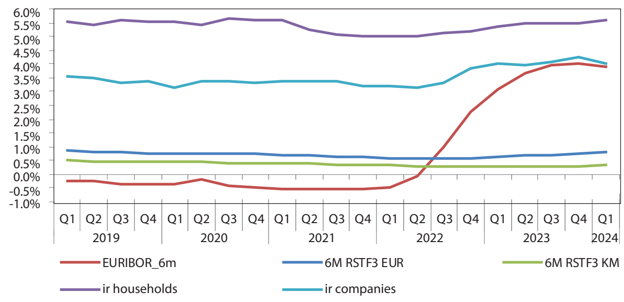
[19] *Elaborated in the Chapter: Households (Graphs: 3.10 and 3.11).*

The lowering of the reference interest rate by the ECB in the first half of June 2024 will not significantly affect interest rates in BH, since domestic banks did not raise interest rates to the same extent as banks in the EU, i.e., spill over effects in BH, associated with the growth of interest rates in the euro area, were much milder and much slower, and their decreasing effect will also be absent.

The reference rates of the average weighted cost of funding banks in BH, which CBBH began to publish in the second half of 2023, also show that there have been no significant changes in the costs of banks funding in BH. After the strong growth of EURIBOR that followed the implementation of the ECB's restrictive monetary policy during 2022 and 2023, the lack of a reference rate on the domestic market that banks in BH could use to tie interest rates to financing sources and to loans with variable interest rates instead of the EURIBOR value, proved to be a significant shortcoming. With the aim of overcoming this deficiency, the Entities' Banking Agencies and the CBBH estimated that a good reference indicator could be the average cost of funding domestic banks, and within the framework of the coordination of banking supervision, they developed Methodology for the RRFC – Reference rate of average weighted banks' funding cost in BH[20] in the first half of 2023. The main purpose of determining the domestic reference interest rate was to reduce risks to financial stability in a turbulent macroeconomic environment, improve the functioning of the internal market, and ensure a higher level of protection for financial services' users and investors.

Based on the trends of the six-month reference rate for KM and EUR currencies [21], it can be concluded that the cost of banks funding in BH in the period before the start of the rise in interest rates in the euro area gradually decreased, but also that domestic reference rates were significantly above EURIBOR all the time. In other words, at no time were domestic banks able to raise funds for financing at such a low price as banks on the European market. With the beginning of the rise of EURIBOR, the cost of financing sources of banks on the domestic market did not record a significant increase, however, in the last few quarters, we see a somewhat more dynamic increase in the six-month reference rate for sources in EUR currency compared to sources in KM currency (Graph 5.7). Taking into account the medium-term projections of macroeconomic trends in the country, in 2024, a gradual continuation of the growth of interest rates on time deposits is expected and, accordingly, the growth of reference rates. However, the pressure to increase interest costs on domestic sources of funds is not significant considering that the financial market in BH is still underdeveloped and the possibilities for alternative types of investment of surplus funds available to the households are limited. Also, a very small number of depositors in BH have deposits of significant amounts, while the largest number of the household deposits refer to deposits of very small amounts (described in more detail in the Chapter: Households), which is why it is realistic to expect that a significant amount of funds will continue to be kept in transactional and current accounts to which banks pay insignificant interest rates/fees of 0.04% on average. As a result of the above, it is evident that, in the current circumstances, banks believe that they can maintain a moderate, but stable growth in deposits, which will be sufficient to finance credit demand, with a limited increase in interest rates on deposits.

Graph 5.7: Trend of EURIBOR and Interest Rates in BH



Source: FBA, BARS, CBBH
Note: 6M RSTF3 EUR and 6M RSTF3 KM denote reference rates for all sources of BH banking sector financing- 6 months households and non-financ. companies and financial institutions

The strengthening of credit activity in the private non-financial sector resulted in a reduction of the negative gap, which measures the private sector credits to GDP ratio (Graph 5.8). The graph shows the assessment of the financial cycle for BH, based on two basic indicators[22]. The credit-to-GDP ratio gap is a reference or benchmark indicator for assessing the credit cycle and it is expressed in percentage points (right axis of the Graph). The composite indicator was created on the basis of a large number of individual financial and economic indicators, which were determined to significantly reflect the financial cycle of Bosnia and Herzegovina, and it is expressed in standard deviations (left axis of the Graph). The trends dynamics of both indicators is similar and shows an extremely high positive gap in the initial period illustrated in the Graph, while in the more recent period it suggests that the values of the financial cycle are negative. The credit-to-GDP ratio gap shows a positive cycle of as much as 20% during 2008, followed by a sharp slowdown in lending, and the credit cycle enters negative zone in the first half of 2016.

[20] Methodology for the RRFC calculation is located at the CBBH web page (link: https://www.cbbh.ba/content/read/1120).

[21] From October 2023, the CBBH publishes, once in a quarter, the RRFC 3 for currencies: KM and EUR, and for maturities of 3, 6 and 12 months on the CBBH statistical portal (link: http://statistics.cbbh.ba/Panorama/novaview/SimpleLogin_cr_html.aspx).

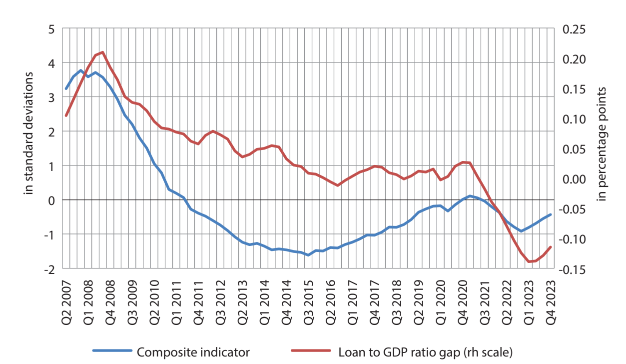
[22] The Financial Cycle Assessment Methodology for BH was made in accordance with the recommendations of the Basel Committee on Banking Supervision (BCBS) and was partially adapted to the domestic economy and available data series. Described in detail in the Financial Stability Report 2021 (Text box 4: Assessment of the financial cycle for BH) at the following link: https://www.cbbh.ba/Content/Archive/575.

From then until the second quarter of 2021, the cycle moved around its long-term trend with minor positive and negative deviations. From the third quarter of 2021, the financial cycle in BH was in a downward phase, and the negative gap continuously deepened until the end of the first quarter of 2023, when it even amounted to -13.9%, which indicates an extremely weak credit activity without tangible risks of overheating. Thanks to the strengthening of credit activity, from the second quarter of 2023, the negative gap decreases slightly and at the end of the last quarter of 2023, it amounts to -11.5%. The composite indicator in the recent period indicates a slightly smaller negative cycle of about -0.4 standard deviations. Based on the estimated contributions of each of the variables used in the composite indicator, it can be concluded that, in accordance with the results, most of the included lending indicators, together with indicators of bank operations, interest rate ranges, and stock market indices, and money supply negatively contribute to the composite indicator of the financial cycle. On the other hand, certain variables, such as the real property price index and the unemployment rate indicate the recovery of the financial cycle in the last few quarters.

The strong growth in real property prices, recorded in the last two years, together with the reduction in the range of interest rates for households in the third and fourth quarters of 2023, indicates the growth of demand for real property and the recovery of the financial cycle.

The expected recovery of personal consumption and the mild growth of private investments should increase the demand for private sector loans in 2024, while the stabilization of inflation will slow down the strong nominal growth of GDP, which is why the negative credit to GDP ratio gap should gradually begin to close. This could lead to the transition of the financial cycle into positive zone.

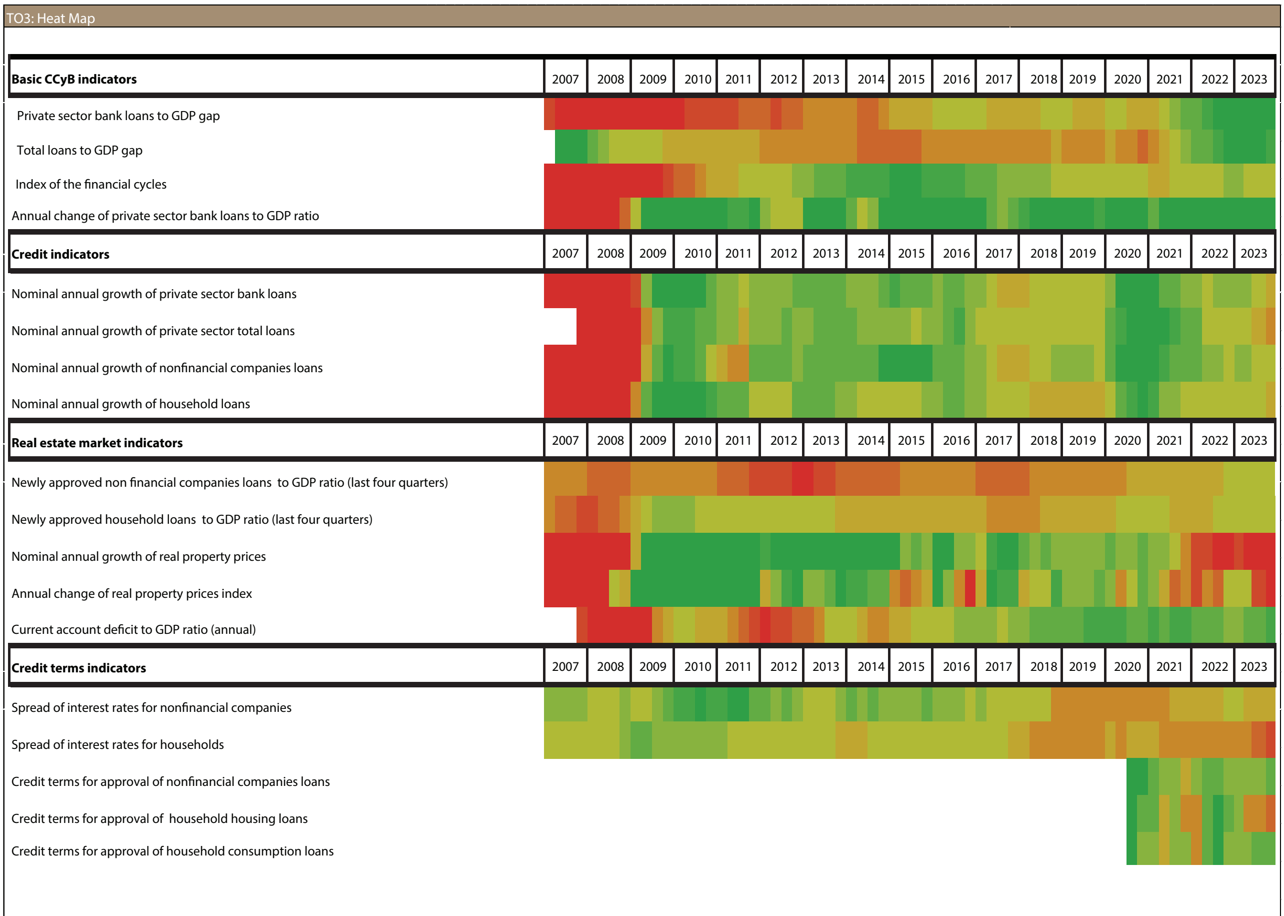
Graph 5.8: Assessment of Financial Cycle for BH



Source: CBBH

The results of the analysis of the cyclical risks' level, based on data for the fourth quarter of 2023, are presented in the Heat Map. Although the credit-to-GDP ratio gap has started to decrease in the last few quarters, the negative phase of the financial cycle, together with other indicators, still do not indicate a strengthening of cyclical risks, except in the case of indicators from the real estate market.

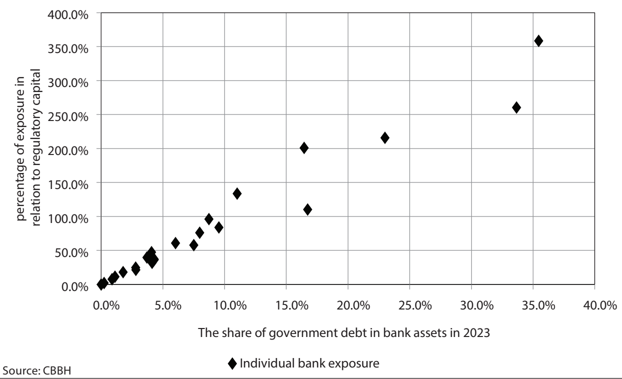
TO3: Heat Map



Source:CBBH

In 2023, the exposure of the banking sector to the government sector has increased compared to the previous year, but is still at a moderate level, so the risks to financial stability arising from the government sector are not significant. According to the CBBH monetary and financial statistics, the total exposure of the banking sector to the government sector at the end of 2023 amounted to KM 3.3 billion, and it is higher by KM 252.2 million or by 8.3% compared to the previous year. In 2023, banks significantly increased their exposure to the government sector based on the purchase of Entities' securities, while at the same time a slight decrease in loans to government institutions was recorded, and ultimately the share of government debt in the total assets of the banking sector slightly increased by 0.22%. to the level of 8%. At the level of the entire banking system, exposure to the government sector, at the end of 2023, was at the level of 76.1% of the regulatory capital of the banking system. Graph 5.9 shows the individual exposure of banks to all levels of government in BH, including extrabudgetary funds and social care funds[23].

Graph 5.9: Exposure to Government Sector, by Banks, in 2023

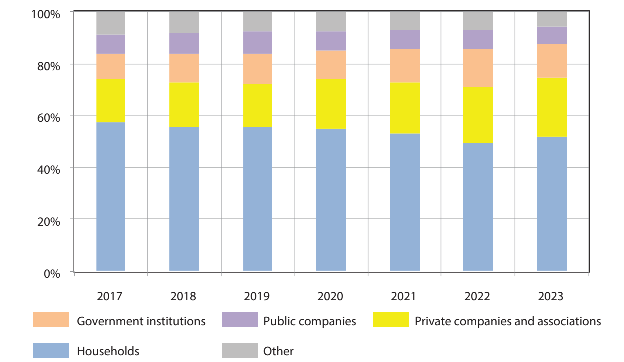


Source: CBBH

In 2023, total liquid assets recorded a slight increase compared to the previous year, while the structure of liquid assets recorded more significant changes in terms of a more evident growth of foreign assets, stimulated by a strong increase in interest rates on foreign markets. Liquid assets at the end of the year amounted to KM 11.15 billion, and are 2.5% higher than last year. However, since the beginning of 2023, significant changes in the structure of liquid assets have been recorded. The above refers to a more pronounced growth of deposit accounts with depository institutions abroad, while other items of liquid assets (cash and reserve account with CBBH) recorded a decline. Deposit accounts with foreign banks increased by KM 771.2 million or 43.4%, at the end of 2023, compared to the previous year, while the cash item decreased by KM 338.8 million or 17.9%, and the position of accounts reserves at CBBH decreased by KM 166.6 million or 2.32%. Due to the strong growth of interest rates on foreign markets, banks invested significant amounts of excess liquidity in overnight or short-term deposits on the European money market, that is, they took advantage of market opportunities and optimized positions within the framework of liquid assets, which ultimately had a positive effect on profitability. Observed by quarter, the highest growth of deposit accounts with depository institutions abroad in the amount of KM 672.5 million or 37.9% was recorded in the first quarter, after which banks continued to increase investment in short-term deposits of non-residents during the second and third quarters for additional KM 684.4 million, and deposits with depository institutions abroad reached a value of KM 3.1 billion, at the end of the third quarter. In the last quarter, banks withdrew part of deposits from non-residents, thus, compared to the third quarter of 2023, a decrease in the position of deposit accounts with depository institutions abroad was recorded in the amount of KM 585.7 million, to the level of KM 2.54 billion. In the first quarter of 2024, banks again placed a significant amount of liquid assets in deposits with depository institutions abroad (KM 860.8 million), and the value of deposits with depository institutions abroad amounts to KM 3.4 billion. **In the structure of sources of funds, total deposits of domestic resident sectors continued to grow, which was more significant than in the previous year. Household deposits of all maturity categories recorded growth during 2023, after the withdrawal of a smaller part of deposits in the previous year, which confirms confidence in the stability of the BH banking sector.** The total deposits of residents, at the end of the year, amounted to KM 31 billion and increased by KM 1.8 billion or 6.1% compared to the end of 2022. In 2023, the largest contribution to growth was made by deposits of private non-financial companies, which account for 22.5% in the total deposits of domestic resident sectors, and deposits of households, which account for 52.1% of total deposits (Graph 5.10). Deposits of private non-financial companies amounted to KM 6.97 billion, at the end of 2023, and recorded an increase of KM 743.1 million or 11.9%, compared to the previous year, while household deposits amounted to 16.14 billion KM, and they recorded an increase in the amount of KM 1.64 billion or 11.3%, compared to the previous year. On the other hand, other domestic sector deposits recorded a decline in 2023, compared to the previous year. In case of government institutions deposits, a decrease in the amount of KM 251 million or 12.8% was recorded compared to the same period of the previous year; while deposits of public companies recorded a decrease in the amount of KM 161 million or 6.7%, compared to the end of 2022.

[23] *Data on individual bank exposures are taken from the CBBH monetary and financial statistics. In accordance with the IMF's Methodology, data on Entities' securities also include securities of public companies.*

Graph 5.10: Sector Structure of Residents' Deposits

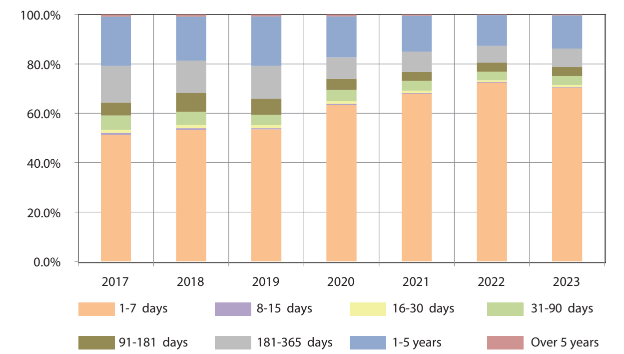


Source: FBA, BARS, CBBH

According to CBBH data, the most intense growth in 2023 was achieved by household deposits on transaction accounts (KM 799 million or 19.5%) and short-term deposits (KM 55.2 million or 14.3%); while demand deposits grew by KM 154.7 million or 5.5%; and long-term deposits increased by KM 45 million or 0.8%. At the end of 2023, a-vista deposits make up 70.5% of total household deposits, with deposits on transaction accounts accounting for 45.2% and demand deposits with 25.3% of total household deposits. Observed on an annual basis, the trend of reducing the share of long-term time households' deposits has not stopped. The share of long-term deposits in total household deposits decreased by 2.5 percentage points compared to the previous year, i.e., from the level of 29.5% at the end of 2022 to the level of 26.95% at the end of 2023. However, in the last quarter of 2023, as well as in the first quarter of 2024, certain changes were still noticeable and the share of long-term time deposits in total household deposits started to grow slightly. The above is the result of business policies that several banks started implementing from mid-2023, which refer to the promotion of higher interest rates, over 3% on term savings, with special benefits, such as advance interest payments, fixed interest rates, stimulating interest rates, etc. In accordance with the above, it is expected that in the coming period, there will be a change in the form of a slight increase of term and savings deposits. The dominant growth of deposits on transaction accounts, which continued in the first quarter of 2024, is contributed by the still low average deposit interest rates on households' term deposits. The average weighted interest rate on household time deposits in the second half of 2023 recorded an increase of 69 basis points, from an average level of 1.67% in the first half of the year, to an average level of 2.36% in the second half of 2023. High inflation, along with still relatively low deposit interest rates, does not contribute to the households' motivation regarding term deposits, especially in the long term.

The term structure of the total sources of funds in 2023 did not change significantly, however it is evident that due to the increase in interest rates offered by banks on time deposits, there is a gradual strengthening of the domestic sectors' preference for time deposits. Deposits with a maturity of 1 to 7 days decreased slightly in 2023 by 2.2%, and decreased their share in total deposits by 2.16 percentage points, to the level of 70.2%. Other categories of deposits of all maturities recorded a slight increase in the share of total deposits; the most significant increase was the share of the category of deposits with remaining maturity of 1 to 5 years from the level of 12.4% at the end of 2022 to 13.4% of total deposits of all resident and non-resident sectors at the end of 2023. The share of long-term deposits with a remaining maturity of more than 5 years is only 0.3% of total deposits (Graph 5.11).

Graph 5.11: The Total Deposit Structure by the Remaining Maturity

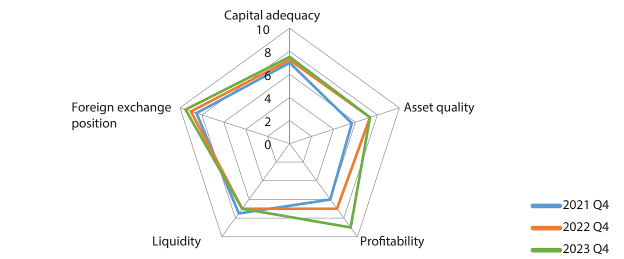


Source: FBA, BARS, CBBH

In 2023, the BH banking sector maintained a high degree of stability thanks to high capitalization and liquidity, improved asset quality, while bank profitability reached the highest recorded level, and compared to the previous year, the sector's resilience to the risks increased. The financial stability risks in 2023 have been mitigated primarily thanks to the slowdown in inflation, but there is still a high degree of uncertainty in the macroeconomic environment, which may adversely affect the expected economic growth and the level of inflation in the coming period. Keeping up with the tighter financing conditions and potential significant correction of interest rates on the domestic market could result in the strengthening and materialization of credit risk in the medium term. In addition, in the coming period, the banks' profitability risk will represent pressure on the growth of funding costs due to the rise in interest rates and the potential deterioration of asset quality. The overall assessment of the stability indicators of the banking sector for 2023 shows that the resilience of the banking sector has increased compared to the previous year, to the greatest extent due to strong growth in profitability, which increases banks' capacity to absorb potential losses in the event of risk materialization. The improvement of the quality of assets at the systemic level continued, which is to a significant extent the result of the write-off of non-performing receivables, and the restructuring and collection of non- performing receivables in one part of the credit portfolio.

The values of the liquidity indicator remained at the same level from the previous year and reflect the high liquidity of the banking sector. A high score in the foreign exchange position segment indicates that exposure to foreign exchange risk is extremely low, given that EUR, the anchor currency of the domestic currency in the currency board, is the dominant foreign currency in the banking sector. The banking sector is adequately capitalized significantly above the required regulatory minimum, which helps preserve banks' resilience in the event of worsening macroeconomic or financial conditions (Graph 5.12).

Graph 5.12: Chart of the Banking Sector Financial Soundness Indicators

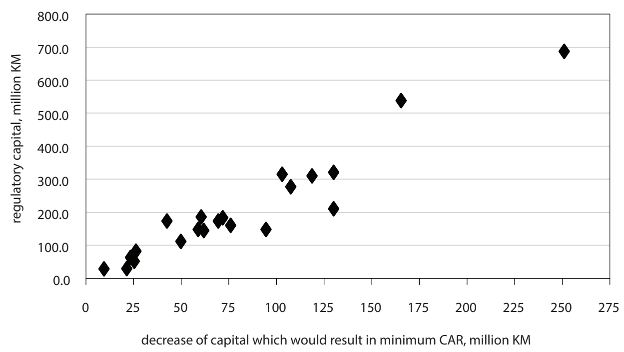


Source: CBBH
Assessment of stability for each variable is based on simplified standardisation of several indicators representing the basis for quantification of synthetic assessment of degree of stability of various segments of banking sector operations. To make indicators comparable, they need to be transformed first, i.e. standardised, after that, depending on the obtained value of z-score, each indicator is assessed according to relative position in relation to its empiric distribution. Increase of distance from the centre of the chart for each variable, i.e. higher grade indicates the increase of stability in the system, while grades closer to the centre warn of the increase of risk or decrease of resilience of banking sector and accordingly, a higher threat to stability.

The BH banking sector is adequately capitalized at the end of 2023, and all banks in the system meet the required regulatory requirements regarding capital adequacy measured by the capital adequacy ratio and the financial leverage ratio. The Tier 1 ratio at the end of 2023 is 18.72%, the Common Equity Tier 1 capital ratio is 18.69%, while the financial leverage ratio at the system level is 10.1% (the regulatory minimum is 6%). The Tier 1 and the Regulatory capital ratios recorded a slight increase of 0.04%, and 0.09% compared to the end of the previous year. The biggest impact on the growth of the value of the Tier 1 capital and the Common Equity Tier 1 capital at the system level was the inclusion of realized profit in the Tier 1 capital. The total risk exposure of all banks in the system, at the end of 2023, is KM 22 billion, which represents an increase of KM 1. 5 billion or 7.6%. At the system level, the structure of total risk exposure has not changed significantly compared to the end of the previous year, and banks are most exposed to credit risk (91.5%), while operational and market risk exposures make up 7.9% and 0.55% of the total exposure to risk.

Graph 5.13 shows how much the Regulatory capital for each individual bank should be reduced, along with the total level of weighted risk at the end of 2023, in order to bring the capital adequacy ratio down to the regulatory minimum of 12%. The Graph shows that most banks, with an unchanged level of risky assets, could withstand a significant reduction in Regulatory capital before their CAR would drop to the lower limit of the regulatory minimum. The capital adequacy of banks that in the previous period had lower capitalization indicators improved, compared to the system average, when including the realized profit of the current period in the capital. However, certain banks in the system are more vulnerable in the event of risk materialization, given that a relatively small reduction in Regulatory capital for these banks would jeopardize the meeting of the required level of capital adequacy.

Graph 5.13: The Effect of Regulatory Capital Decrease on CAR, Q4 2023



Source: FBA, BARS, CBBH

In 2023, the asset performance indicator continued to improve at the systemic level, which is reflected in the lowest value of non-performing loans compared to total loans, have not being recorded since 2006. Due to the slowdown in the growth of real economic activity and increased inflation, with the maintenance of tighter financing conditions, the strengthening and materialization of credit risk can be expected in the medium term. The share of non-performing assets in total assets, at the end of 2023, is 2.1%, and it is by 39 bp lower than at the end of the previous year. During the year, balance sheet and off-balance sheet exposures at credit risk level 3 recorded a decrease in the amount of KM 114 million (11.3%), while total financial assets increased by KM 2.48 billion or 5.75%. The largest part of non-performing assets consists of non-performing loans, which at the end of 2023 amounted to KM 898.3 million and decreased by KM 114 million or 11.3% compared to the end of the previous year. A significant decrease in non-performing loans with the simultaneous growth of total loans resulted in a decrease of the share of non-performing loans in total loans, thus, at the end of 2023 the NPL ratio was 3.8%, being the lowest value recorded after the outbreak of the financial crisis in 2009. During 2023, banks reduced the non-performing loans to the greatest extent due to the accounting and permanent write-off of assets assessed as a loss, as well as carried out collection of non-performing receivables. With the permanent and accounting write-off and collection of non-performing receivables, in 2023, the total value of loans that changed from performing to non-performing receivables was slightly lower compared to the previous year, which also contributed to the improvement of the performance of the loan portfolio. According to data from the CRC, in 2023, a lower default rate was recorded in the household sector in terms of the value and number of lots that moved from performing to non-performing receivables (from a level of 1.23% in 2022 to a level of 1.19% in 2023). Also, in the segment of legal entities, the default rate dropped from the level of 1.31% in 2022 to the level of 0.87% in 2023.

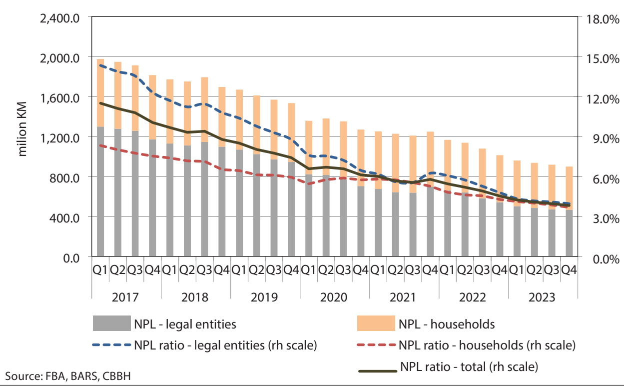
Due to the continuation of stricter credit standards and policies, which imply financing of extremely creditworthy clients, on the one hand, and the source structure, on the other hand, banks have so far been less inclined to change interest rates on existing loans contracted with a variable interest rate. This particularly applies to large banks with a high share of deposits, which had less need to increase deposit interest rates to attract new depositors, which was also reflected in a less need to increase lending interest rates in the case of these banks. A significant increase in interest rates (200 bp or more) was recorded in a very small part of the loan portfolio. According to the FBA reporting data, there is a significant increase in the interest rate as of December 31, 2023 compared to the reference date (June 30, 2022), recorded in parts of the portfolio at nine banks in the amount of KM 370.3 million, being 2.2% of the total loan portfolio of banks from FBH. As of the credit portfolio of legal entities, a significant increase in the interest rate was recorded amounting to KM 332.9 million or 3.8% of the credit portfolio of legal entities, while in the case of the credit portfolio of natural persons it was recorded in the amount of KM 37.4 million or 0.4 % of the portfolio of natural persons. In accordance with the provisions of the Decision on Temporary Measures to Mitigate the Risk of Interest Rate Growth[24], expected credit losses were determined in the amount of KM 24.2 million, and banks formed additional provisions for expected credit losses in the amount of KM 5.9 million for loans with a significant increase in interest rates.

After the start of the tightening of the ECB's monetary policy, banks in BH predominantly contract new long-term loans with a fixed interest rate, in order to avoid interest-induced credit risk as much as possible, which is particularly emphasized in the household sector, where approved loans have an average of longer remaining maturities than the corporate loans. In 2023, 88% of newly approved loans to households were approved with a fixed interest rate, while in the case of the private non-financial sector, 57% of newly approved loans were contracted with a fixed interest rate. However, although the increase in the share of loans with a fixed interest rate made a positive contribution to the reduction of interest-induced credit risk, a strong increase in the share of loans with a fixed interest rate could have a negative impact on profitability, since it is expected that the increase in banks' funding costs will continue in the coming period, which will put pressure on the sustainability of net interest margins.

Nevertheless, taking into account the data of Banking Agencies on effective interest rates, which are noticeably higher than nominal interest rates, especially in the household sector, it can be concluded that banks have already incorporated, to a significant extent, the estimates on funding costs increase into the effective interest rate on loans with a fixed interest rate.

During 2023, non-performing loans in the corporate and household sectors continued their downward trend, thus at the end of 2023, the share of non-performing loans to total loans in the corporate sector amounted to 4%, while in the household sector this indicator amounted to 3.7%

Graph 5.14: Credit Portfolio Quality



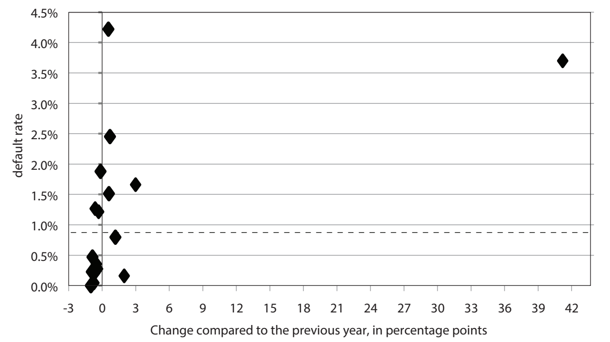
Source: FBA, BARS, CBBH

As of the legal entities, a decrease in non-performing receivables was recorded in almost all activities. Also, the lower rate of default recorded in 2023 in the segment of legal entities indicates that there was no significant materialization of credit risk in non-financial companies, despite operating in circumstances of an elevated level of risk in the macroeconomic environment. At the sector level, the default rate in the segment of legal entities amounted to 0.87%, and is lower by 43 bp compared to the previous year. Analysing the default rate by banks, it can be concluded that in more than half of the banks in the system, the credit risk decreased or the credit risk remained at approximately the same level as the previous year (Graph 5.15). However, although a lower default rate was recorded than in the previous year, the share of loans with increased credit risk (loans in credit risk level 2) increased in the total legal entities loans, from the level of 10.8%, at the end of the previous year, to the level of 11.8%, at the end of 2023. The increased level of risk in the macroeconomic environment was reflected to the greatest extent in the operations of companies in the construction and transportation and storage industries, where we see the most significant increase in the share of loans at credit risk level 2 in the total legal entities loans. Thus, the share of loans at credit risk level 2 in the total legal entities loans extended with companies from the construction sector increased from level of 11.7%, at the end of the previous year, to a level of 17.8%, at the end of 2023, and while the share of loans at the

[24] *Provisions of the Decision on Temporary Measures to Mitigate the Risk of Interest Rate Growth in FBH and RS shall be implemented until 31 December 2024 (Official Gazette of Federation BH, 41/24 and Official Gazette of RS, 45/24).*

level of credit risk 2, that were extended with companies engaged in transportation and storage increased from 11.3% to 16.8%. Due to the continued weakening of macroeconomic conditions and still high inflation, the credit risk in the sector of non-financial companies can be assessed as increased, and a somewhat more significant deterioration in the performance of the credit portfolio and a higher default rate of the corporate sector can be expected in the medium term.

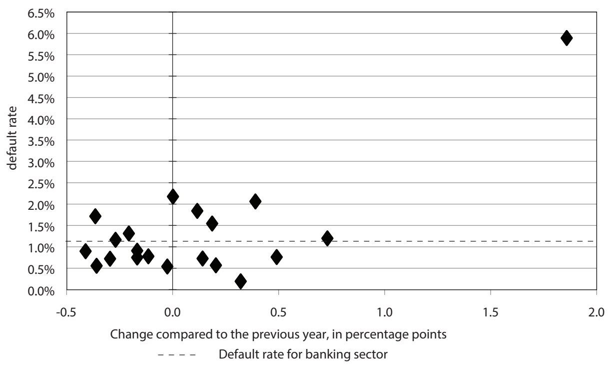
Graph 5.15: Default Rate in Corporate Sector, by Banks in 2023



Source: CRC, CBBH

The average default rate in the household sector at the end of 2023 is 1.19% and has slightly decreased compared to the previous year. Changes at the system level were not significant, only one smaller bank stands out with a relatively high share of non-performing loans in total loans, which recorded a higher intensity of reclassification into non-performing loans in 2023 (Graph 5.16).

Graph 5.16:Default Rate in Household Sector, by Banks in 2023

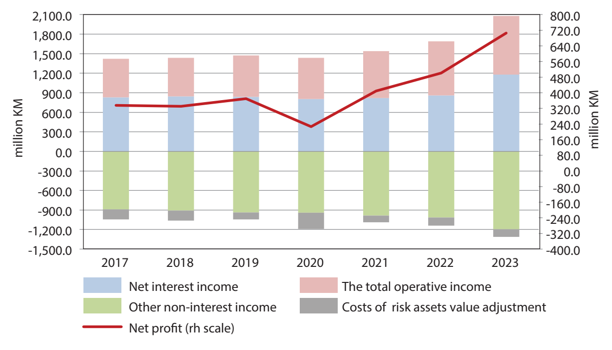


Source: CRC, CBBH

In 2023, the banking sector of BH reported a record net profit and achieved significantly higher rates of return on average assets and average equity, even though their operations took place in a relatively unfavorable macroeconomic environment. Assuming the continued growth of credit activity and a slight increase in active interest rates, the profitability of the banking sector will remain high, but the pressure on the growth of financing costs and the possible deterioration of asset quality could reduce bank earnings in the coming period.

In 2023, the BH banking sector reported a record net profit in the amount of KM 705.8 million, higher by as much as 41% compared to the previous year. Banks achieved growth in profitability primarily thanks to the growth in interest income, while interest expenses remained almost unchanged compared to the previous year. Significant growth in net interest income is due to continued growth in credit activity and a slight increase in interest rates on loans to households and non-financial private companies, as well as continued growth in interest income from interest-bearing deposit accounts. Also, the continuation of the growing trend of operating income was recorded. On the expenditure side, there was a decrease in the cost of the correction of the risky assets value, while other business and direct expenses and total operating expenses recorded an increase, which led to an increase in total non-interest-bearing expenses (Graph 5.17).

Graph 5.17: Banking Sector Profit



Source: FBA, BARS and CBBH

All banks in the system reported a positive financial result, with the largest part of the banking sector's profit still concentrated in a few large banks. Thus, the two largest banks made a profit that is 40.2% of the profit of the entire sector, while the four most profitable banks generated 55.1% of the total net profit of the banking sector.

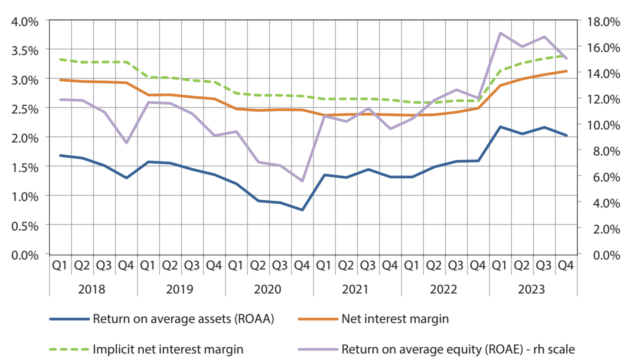
Total interest income in 2023 amounted to KM 1.3 billion and compared to the previous year, it is higher by as much as KM 321.8 million or 32.1%. A continuation of the growth of lending interest rates can be expected in the coming quarters, which will continue to have a positive effect on the profitability of the banking sector, especially if this growth is not accompanied by a proportional increase in deposit interest rates. Total interest income from loans recorded an increase of KM 167.8 million or 19.3%. There was also a significant increase in interest income from interest-bearing bank deposit accounts with depository institutions (of KM 82.8 million), which is mostly related to the growth of overnight and short-term deposits with depository institutions abroad compared to the previous year, as well as increase in interest rates on international markets.

Total interest expenses and other similar expenses amounted to KM 144.9 million and are higher by KM 1.6 million or 1.1% compared to the previous year. Net interest income amounted to KM 1.2 billion and was higher by KM 320.2 million or 37.2% compared to the previous year.

In 2023, the growth of total operating revenues continued, but with a lower intensity compared to the previous year, and they amounted to KM 899.1 million. Compared to last year, total operating income increased by KM 70 million or 8.4%. Banks achieved the growth of operating income to the greatest extent based on the increase in fees for services rendered and fees for off-balance sheet operations, which significantly contributes to maintaining a high level of profitability in the system. The share of operating income in the total income of the banking sector is 40.4% and has decreased by 4.8 percentage points compared to the previous year.

At the end of the fourth quarter of 2023, ROAA and ROAE profitability indicators amount to 2% and 15%, respectively, and record growth of 0.4 and 3.1 percentage points, respectively, compared to the same period of the previous year. The significant growth of the profitability indicator is the result of higher realized profits in 2023 compared to the previous year, with, at the same time, a significantly lower percentage growth of average assets and average equity (Graph 5.18)[25].

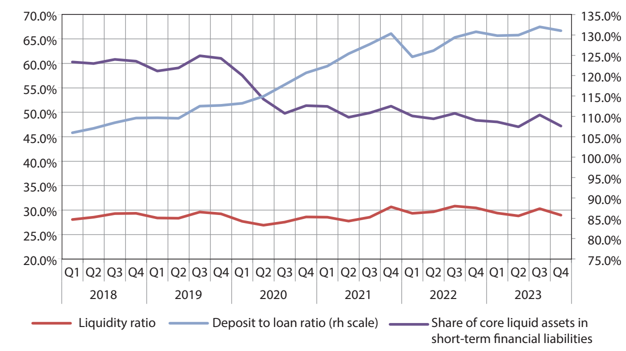
Graph 5.18: Profitability Indicators



Source: FBA, BARS and CBBH

In 2023, the values of the liquidity indicator remained at approximately the same level compared to the previous year, and continue to reflect the high liquidity of the banking sector, as shown by the results of resilience tests on the liquidity stress. At the end of 2023, liquid assets accounted for 29% of banking sector assets, while 47.2% of short-term liabilities were covered by liquid assets (Graph 5.19). The indicator of deposits to loans, at the end of 2023, reached the level of 131%, and indicates that credit activity on the domestic market is fully financed by deposits of non-financial sectors.

Graph 5.19: Liquidity Indicators



Source: FBA, BARS and CBBH

Liquidity coverage ratio (LCR) at the level of the banking sector at the end of 2023 was 218.1%. All banks met the requirements regarding LCR, and the majority significantly exceeded the prescribed regulatory minimum[26]. At the end of 2023, the net stable funding ratio (NSFR) was 159.9%, and all banks in the system recorded significantly higher values of the indicator than the minimum required amount of 100%.

The results of the analysis of interbank and cross-border exposures indicate an extremely low risk of potential contagion in 2023. Although interbank exposures were not significant in previous years either, according to data from the end of 2023, the mutual exposures of domestic commercial banks were further reduced compared to the end of the previous year, both in terms of the total amount of exposure[27], and the number of mutual connections between banks. As a result, the risks of interbank contagion due to the spillover of systemic risks between banks are further reduced. Analysis of cross-border connectivity according to data for the end of 2023 indicated that a higher risk of contagion arises from cross-border exposures than from the exposures on the domestic interbank market. Given that the banking sector in BH is dominated by banks with mostly foreign ownership, the findings of this analysis confirmed their significant cross-border exposure and dependence primarily on parent banking groups. Comparing the findings of the network analysis with the findings of the analysis conducted on the basis of data as of 31 December 2022, a slightly higher total exposure of BH banking sector is noticeable towards abroad, and the BH banks largest exposure is to Germany, Austria and Italy. Indirect effects of contagion were not recorded thanks to small interbank exposures and good capitalization of all commercial banks in BH.

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[25] *Implicit net interest margin represents the ratio of net interest income to average interest-bearing assets. The average interest-bearing assets, at the end of the fourth quarter, was calculated as the average of the balance of interest-bearing assets at the end of the fourth quarter of the previous year and the fourth quarter of the current year.*

[26] *In accordance with the Decision on Bank Liquidity Risk Management ("Official Gazette of FBH", 39/21) and the Decision on Liquidity Risk Management ("Official Gazette of RS", 62/21), the minimum liquidity coverage ratio is 100%.*

[27] *Total interbank exposures of commercial banks in BH as of December 31, 2023. were KM 23.3 million, which is by 55.3% lower value compared to the end of 2022.*

Text box 4: Solvency stress tests

Stress testing of the banking sector in BH shows that banks with the existing level of capitalization are capable of handling the materialization of risk even in a stronger adverse scenario, when even in the time horizon of the stress test for the next three years, capitalization at the sector level would remain quite above the regulatory requirements, which implies a minimum capital adequacy ratio of 12% and an additional capital buffer amounting to 2.5% of the total amount of risk exposure. This year's stress testing also includes additional capital requirements from Pillar 2, which were determined for each individual bank in the Supervisory Review and Evaluation Process (SREP) of individual banks.

Stress resilience testing in the period from 2024 to 2026 is carried out using three different scenarios, namely the base line and two adverse scenarios. The scenarios and assumptions for stress testing are based on the current geopolitical events in the world, as well as their implications for the global economy and the economy in BH, and the expected implications for BH banking sector. The quantification of the scenario includes projections of macroeconomic and financial variables - such as real GDP, inflation, credit growth, interest rates on loans to households and corporates, and real estate prices (Table TO 4.1).

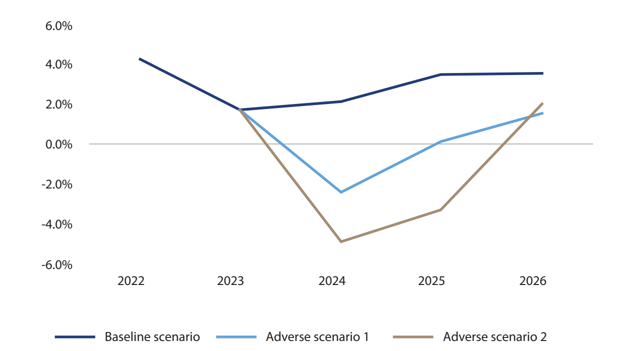
Table TB 4.1: Main Assumptions in Baseline and Adverse Scenarios

	2023	Baseline scenario			Adverse scenario 1			Adverse scenario 2		
		2024	2025	2026	2024	2025	2026	2024	2025	2026
Macroeconomic trends										
Real GDP	1.7	2.1	3.5	3.5	-2.4	0.1	1.5	-4.9	-3.3	2.0
Inflation (%)	6.1	2.9	2.4	2.0	5.4	2.9	2.5	6.1	5.5	3.0
Real estate prices	15.9	2.5	3.3	5.0	-5.3	0.1	2.0	-5.3	-5.8	1.5
Conditions on the financial market										
Interest rates for households (%)	5.5	6.0	6.5	6.2	6.7	7.6	7.5	7.0	8.2	8.0
Interest rates for corporates (%)	4.1	5.0	5.3	5.0	5.8	6.7	6.5	6.1	7.3	7.0
Household credit growth	7.4	4.8	4.6	6.0	2.5	2.9	4.5	0.0	1.0	3.5
Corporates credit growth	6.8	4.3	4.1	4.8	0.0	2.5	4.3	-0.8	1.0	3.2

Source: CBBH

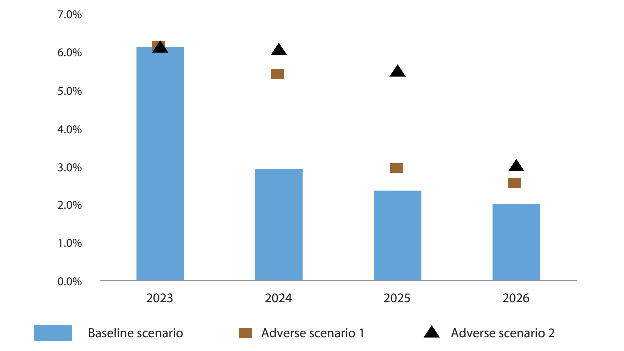
Note: Data for the macroeconomic trends and credit growth is the annual rate of the change presented in percentage.

TB 4.1: Real Growth of GDP



Source: CBBH

TB 4.2 : Inflation Rate



Source: CBBH

The baseline scenario is based on the official CBBH projections from November 2023. According to the official data of the BH Statistics Agency, the BH economy ended the previous year with modest real economic growth and high inflation rate (Table TO 4.1). In this scenario, slightly higher, but still modest, economic growth is expected in 2024, due to weak external demand and persistent inflation, which reduces real household consumption. Economic activity is expected to recover by the end of the stress testing time horizon. Private consumption should be the key driver of GDP growth, which will be positively affected by the improvement of labor market indicators and the weakening of inflationary pressures. The tightening of monetary policy and the raising of the reference interest rates of the leading central banks will be reflected in the gradual increase of interest rates in the BH banking sector in 2024 and 2025, after which growth is assumed to be stopped in the last year of the time horizon. The growth of interest rates will contribute to a slowdown in credit activity in the next two years, after which there will be a gradual recovery in 2026. Weak supply on the real estate market, along with high demand and rising prices of construction works, will lead to continued growth in real estate prices in the test years, but at significantly lower rates compared to the past two years.

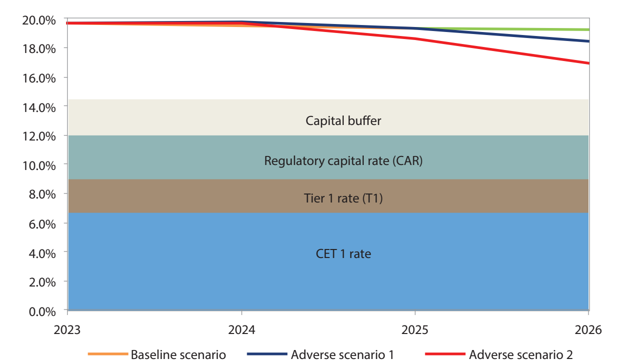
Both adverse scenarios are characterized by a marked decline in economic activity, and still high inflation in the first testing period. The scenarios differ in terms of the duration and intensity of the assumed recession, while the drivers of the recession trends are basically the same for both scenarios. More specifically, the milder adverse scenario shows a contraction only in the first year of stress testing, while in the stronger adverse scenario the modelled recession extends during the first two years of testing. The decline in economic activity in 2024 in both scenarios was influenced by the decline of all GDP categories. The decline in exports is influenced by the decrease in demand from abroad, that is, it is caused by the decline in GDP of the main trading partners. Negative shocks are assumed for aggregate investments as a result of the increase in domestic interest rates, but also the negative business climate in the country and abroad. Personal consumption in 2024 is under the influence of resistant inflationary pressures in the first year of testing due to assumptions about further growth in food and energy prices, but also the increasing contribution of the growth of core inflation. According to adverse scenario 1, inflation will significantly slow down in 2025 as a result of overall economic stabilization and exit from recession, while according to adverse scenario 2, domestic administrative prices, along with the growth of exogenous prices, will continue to record high rates during the second year of testing, and a more significant slowdown is expected only in the last year of stress testing. The assumed increase in the country risk premium in 2024, together with the increase in non-performing loans and the ECB referent interest rate in the second scenario, would lead to a higher increase in domestic interest rates compared to the baseline scenario. The rise in interest rates in both adverse scenarios will last until the last year of the test, when the upward trend will be stopped. As a result of negative economic conditions abroad, and the decline of domestic real economic activity, as well as the growth of household interest rates in the coming period, real estate prices will fall in 2024 in both adverse scenarios, while in the stronger adverse scenario the fall in real estate prices will continue in 2025, but the prices of the real estate still remain quite above the level from the 2021 end.

The impact of stress tests on the capital adequacy ratio was quantified based on the initial condition as of December 31, 2023. At the end of 2023, the banking sector showed significantly higher resilience to assumed shocks compared to the previous year, primarily thanks to good initial business indicators, including a high capitalization ratio of all banks in the sector, improvement in asset quality, and the highest annual net profit to date. In the baseline scenario, the banking sector maintains a high level of capitalization of 19.2% until the end of the time horizon of the stress test. All banks in the system would be able to maintain the capital adequacy ratio above the regulatory minimum of 12% and meet the additional capital requirements from Pillar 2 established within the Supervisory Review and Evaluation Process (SREP). Also, all banks in the system would be able to maintain a capital buffer until the end of the time horizon of the stress test.

In the adverse scenario 1, which assumes negative economic growth in the first year of testing, and a slight recovery of economic activity only in the third year of testing, the capital adequacy ratio at the end of the test period would amount to a high 18.5%. The conducted testing showed that the banking sector is extremely resistant to assumed shocks in the a.m. scenario, and that only two smaller banks, whose total share in the system's assets is 2.9%, would express the need for additional capitalization, in case of materialization of shocks from the extreme scenario. In addition to the mentioned banks, three more banks in the system, when absorbing assumed shocks, deplete their surplus capital and encroach into the capital buffer. In case of the materialization of shocks from adverse scenario 2, where a strong contraction of economic activity is assumed in the first two years of the stress test with a slight recovery in the third year, additional capital needs, at the end of the three-year test period, would be reported by a total of seven banks in the system, with four banks not meeting the system-wide minimum regulatory capital requirements of 12%, while another three banks would not meet the additional capital requirements established within the SREP. The total assets of the mentioned banks at the end of the fourth quarter of 2023 make up 26.8% of the assets of the banking sector. In addition to the aforementioned banks that expressed the need for additional capitalization, two more banks would exhaust their accumulated surplus capital in this unfavourable macroeconomic scenario, i.e., their capital buffer [28] would be violated.

The total recapitalization needs at the system level would amount to KM 107.6 million, which represents 0.2% of the gross domestic product in 2023.

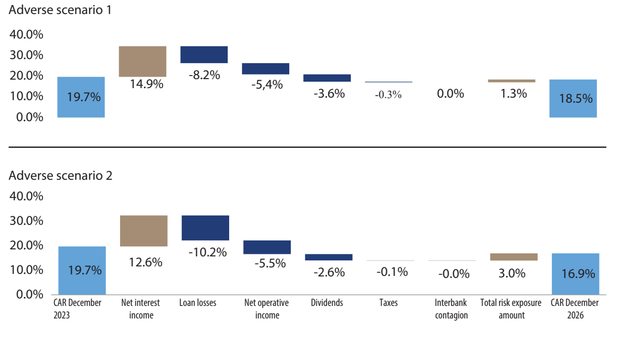
TB 4.3: Capital Adeqacy Ratios in Baseline and Two Adverse Scenarios and Minimum Regulatory Capital Requirements



Source: CBBH

Graph TO 4.4 shows the contribution of individual positions of the balance sheet and of the profit and loss account to the change in the capital adequacy ratio at the system level, cumulatively, in adverse scenarios, in the period from the end of 2023 to the end of 2026. The decline in capitalization of the banking sector in both stress scenarios is primarily the result of increased losses based on credit risk arising from financial asset items, primarily the credit portfolio of the corporate and household sectors. Capitalization is also affected by the decrease in net operating income compared to the end of 2023. Net interest income, on the other hand, has a key positive contribution to maintaining capital adequacy, of 14.9% percentage points in the milder and 12.6% percentage points in the stronger adverse scenario, regardless of the slight reduction until the end of 2026. Also, capitalization during stress is additionally affected by the assumption of dividend payment in all three stress test periods, as well as in all three scenarios. The impact of interbank contagion in the system on the capitalization of banks is unsignificant for the time being.

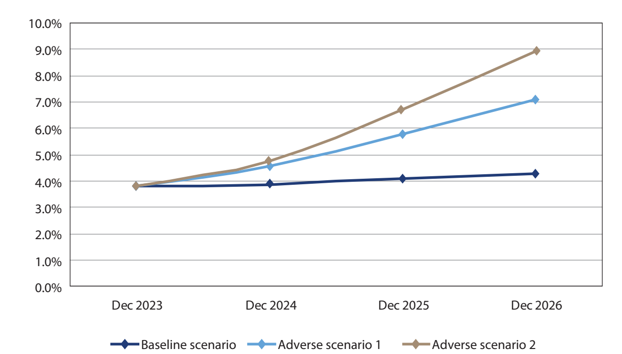
TB 4.4: Impact of Individual Positions on CAR in Both Adverse Scenarios



Source: CBBH

Despite the continuous decrease in the level of NPLs in the previous period, the results of the stress tests show that the performance of the credit portfolio is very sensitive to changes in macroeconomic conditions, and already in the baseline scenario there is a slight deterioration in the quality of the credit portfolio in all three years of testing. In both adverse scenarios, a significant increase in non-performing loans is expected until the end of the time horizon of the stress test, which is influenced by the assumed strong growth of inflation, contraction of economic activity and a significant increase in interest rates. The projected growth of non-performing receivables is evident both in the corporate sector and in the household sector, with the growth of NPLs being stronger in the corporate sector, which is the result of greater sensitivity of the corporate loan portfolio to a sharp decline in economic activity and the rise in interest rates assumed in both adverse scenarios.

TB 4.5: Share of Non-performing in the Total Loans



Source: CBBH

[28] *According to the valid Decisions on the calculation of the capital, banks are obliged to maintain a capital buffer layer in the form of Common Equity Tier 1 capital in the amount of 2.5% of the total amount of risk exposure. The capital buffer is added to the Common Equity Tier 1 capital ratio of 6.75% and cannot be used to maintain the Tier 1 and total capital ratios. Maintaining the regulatory capital buffer is a precondition for the payment of dividends for banks.*

Text box 5: Liquidity stress tests

Based on the results of the liquidity stress test conducted on the database for the end of 2023, the banking sector in BH can be assessed as resistant to liquidity shocks and funding sources shocks assumed in alternative scenarios. Such results of stress testing are primarily a consequence of the good initial liquidity position of all banks in the sector and high LCR coefficients, which at the end of 2023 were amounting from 156% to a high of 1320%.

Starting from the fourth quarter of 2021, the CBBH has been continuously conducting a top-down macro liquidity stress test, which is conceptually based on data on monetary flows of all commercial banks in the system. The calculation of the liquidity position under assumed conditions of significant stress in a 30-day time period is based on the approach of the standardized measure of the liquidity coverage ratio (LCR). The shocks in the liquidity stress test are calibrated using CBBH expert judgments in the form of three alternative adverse scenarios. The first stress scenario assumes a shock on the part of the households sector and is based on a historical event, namely the global financial crisis in the period 2008-2009, which resulted in a short-term loss of confidence in Bosnia and Herzegovina's banking sector, and consequently by withdrawing a significant part of the household deposits. The second stress scenario represents a hypothetical systemic liquidity crisis in the country, in which the greater intensity of the stress on the banks' financing sources would come from the corporate sector. The third, combined stress scenario is an adverse scenario that assumes a combination of shocks from the previous two scenarios, with elements of idiosyncratic shocks, such as large withdrawals of deposits, larger than expected withdrawals of approved credit lines, and stress on the financial market reflected in a large decline in the value of all securities held as liquid assets. The assumed shocks in this scenario are about two to three times stronger than the requirements from the LCR regulations, and the goal of this scenario is to identify even the smallest weaknesses in banks' liquidity positions (Table TO 5.1).

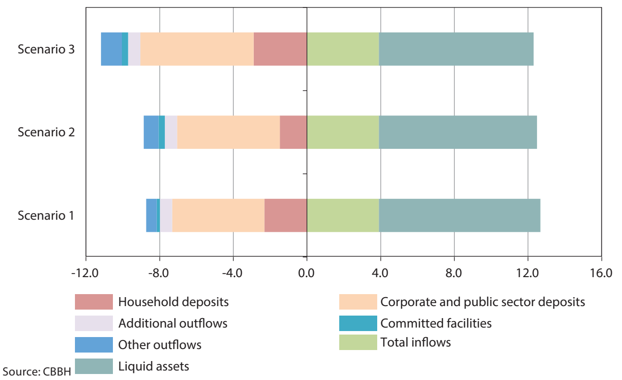
Table TB 5.1: Calibration of the Scenario in Liquidity Stress Test

		LCR parameter	Assumptions for scenario 1	Assumptions for scenario 2	Assumptions for scenario 3
Outflows	**Household deposits**				
	Deposits with higher outflow rates				
	Category 1	15%	20%	15%	30%
	Category 2	20%	30%	20%	40%
	Stable deposits	5%	10%	5%	10%
	Other household deposits	10%	15%	10%	20%
	Operational deposits				
	Covered by insurance system	5%	5%	10%	10%
	Not covered by insurance system	25%	25%	30%	35%
	Non-operational deposits				
	Covered by insurance system	20%	20%	25%	30%
	Not covered by insurance system	40%	40%	45%	50%
	Committed lines				
	towards natural persons	5%	5%	10%	10%
	towards legal entities	10%	10%	20%	20%
	towards financial clients	40%	40%	50%	60%
	Other products and services				
	Off balance liabilities	5%	5%	10%	15%
	Unused loans and advance payments to big clients	10%	10%	20%	30%
	Credit cards	5%	10%	5%	15%
	Account overdrafts	5%	10%	5%	15%
	Off balance products from trade financing	5%	5%	10%	15%
Liquid assets	**Liquid assets of level 1**				
	Assets of central government	100%	100%	95%	90%
	Assets of regional and local communities	100%	90%	85%	80%
	Liquid assets of level 2				
	debt securities of companies	50%	50%	30%	25%

Note: We selected the positions with the stress parameters different than LCR parameters.

The change in net liquidity outflows through the three assumed scenarios is the result of larger liquidity outflows, while the total inflows were kept at the same level in all three scenarios. The total value of the outflow of liquid assets in different scenarios, as well as the change in the structure in terms of the contribution of different categories of outflows to their total value, differs by scenario, and the largest increase in liquidity outflows is assumed in scenario 3, which significantly affects the LCR after stress in this scenario (Graph TO 5.1).

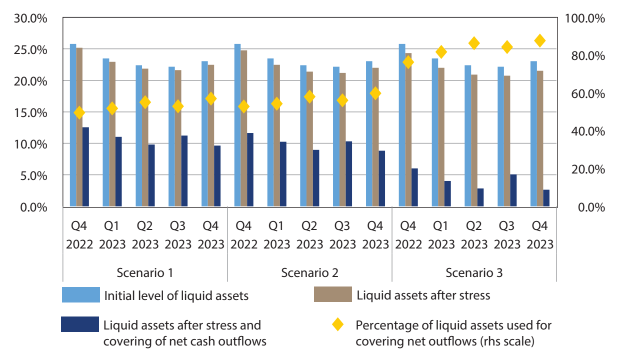
Graph TB 5.1: Basic LCR Components, Q4 2023



Source: CBBH

Graph TO 5.2 shows the average initial level of liquid assets with which banks enter the stress test, which at the end of 2023 amounts to 23% of the total assets of Bosnia and Herzegovina's banking sector. If we observe over time the liquid assets after the stress in all three described scenarios, it is noticeable that the values maintain a slightly lower level compared to the initial level of liquid assets, which is in line with the assumed intensity of the shock, being primarily reflected in the positions of liquid assets of level 1, the most represented with all banks in the sector. On the other hand, the level of liquid assets after stress and covering net cash outflows decreases significantly in all three assumed scenarios, which indicates the importance of a liquidity buffer in stressful conditions. The percentage of liquid assets used to cover net outflows at the level of BH banking system is approximately equal in the first two stress test scenarios, being 57.1% and 59.9%, respectively. In the third combined scenario, the average percentage of used liquid assets at the sector level was as much as 87.7%, which is to expect, given the intensity of the assumed shocks in this scenario.

Graph TB 5.2: Liquid Assets for Banking Sector



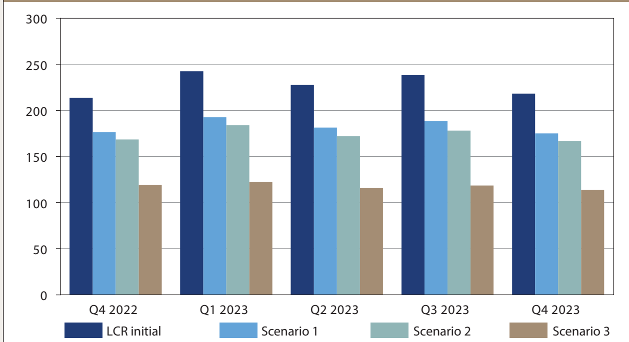
Source: CBBH
Note: Liquid assets presented as percentage of the initial value of the total assets

Observing the results of the liquidity stress test for individual banks in the first two assumed scenarios, all banks would manage to absorb the liquidity and financing stress in a period of 30 days. However, it should be noted that three banks in the first scenario, and four banks in the second scenario, would use the largest part of liquid assets, more than 70%, to cover the assumed net outflows after the shock.

According to the assumptions from scenario 3, four banks would not successfully absorb liquidity and financing stress in a period of 30 days without additional liquid assets, while another four banks would exhaust over 90% of liquid assets to cover the net outflow. The assets of four banks with lacking liquid assets make up 20.3% of the total assets of BH banking sector, and two of the four mentioned banks are among the largest banks in terms of market share by total assets. Considering that this is an extremely strong adverse scenario in which shocks from the household and corporate sectors are combined, which, in addition, are of a stronger intensity than they were individually in the other two scenarios, it can be considered that the banks have absorbed the assumed shocks quite well.

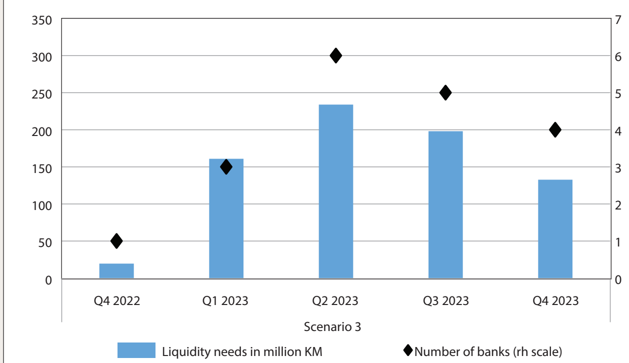
The aggregated results of the stress tests over the periods show that the LCR for the banking sector remained above the regulatory minimum in all three scenarios and in each of the observed quarterly stress tests, and this coefficient would amount to 114% after the assumed shocks in scenario 3 (Graph TO 5.3). As for the total banks needs on the additional liquid funds, which the banks reported only in scenario 3, they are significantly higher compared to the last quarter of 2022, and the number of banks reporting the needs for liquid funds is also higher (Graph TO 5.4). Compared to the previous quarter, the number of banks with lacking liquid assets in Scenario 3 is one bank less, and the absolute amount of the need for additional liquid funds is 65 million less compared to the previous quarter.

Graph TB 5.3: Liquidity Coverage Ratio (LCR) for Banking Sector



Source: CBBH
Note: Unlike LCR in alternative scenarios of liquidity stress tests, the amount of the expected inflows which can compensate for expected outflows is not limited to 75% of outflows.

Graph TB 5.4: The Total Bank Needs for Additional Liquid Assets



Source: CBBH

5.2 Non-banking Financial Sector

The sector of non-banking financial institutions remained a poorly developed and less important segment of the financial market. The individual share of the microcredit sector, as well as the leasing sector, in the total assets of financial intermediaries increased slightly, due to a significant increase in their balance sheet; the share of insurance and reinsurance companies remained at last year's level, while only the share of investment funds in total assets recorded a slight decline. At the end of 2023, the overall share of non-banking institutions in the assets of financial intermediaries increased slightly. However, the move away from the pronounced bank-centricity has not been made in the last three years, and the importance and role of the sector of non-banking institutions as a whole has not significantly increased (Table 5.1). In addition to the more pronounced growth of the balance sheet, the microcredit sector also recorded an increase in profitability indicators. Although a significant increase in total assets was achieved in the leasing sector, a decrease in profitability was recorded at the same time, due to a strong increase in the cost of interest on borrowed funds, which are mostly contracted with a variable interest rate linked to EURIBOR. The largest and most significant segment of the non-banking financial sector remains insurance and reinsurance companies, which record moderate business growth measured by the increase in calculated premiums in both categories of insurance, life and non-life. In 2023, due to the greater debt of Entity governments, there was a significant increase in turnover on the primary market of both BH stock exchanges, while in other segments of the capital market on both stock exchanges there was no significant impact on the growth of turnover compared to the previous year.

The business operation of the microcredit sector in 2023 is characterized by: significant growth in assets, growth in gross loans, growth in capital, reduction in the value of non-performing loans, and growth in profitability. At the end of 2023, 28 microcredit organizations (MCO) were operating in BH, of which 17 were microcredit companies (MCC) and 11 were microcredit foundations (MCF). The total assets of the microcredit sector at the end of 2023 increased by 13.9% compared to 2022, while loans recorded a growth of 15.9% (Table 5.2). Of the total amount of microcredits, 97% were extended to physical persons, with the primary financing of the agriculture sector (25.4%), followed by housing needs (20.8%), and the service sector (8.5%). Loans approved to all other sectors account for 42.3% of total loans to physical persons.

Table 5.2: Simplified Balance Sheet of Microcredit Organisations (million KM)

Assets	2022	2023	Liabilities	2022	2023
Monetary funds and placements to other banks	97.3	88.5			
Loans	1,056.2	1,223.6	Liabilities based on loans	667.8	771.7
Loan loss provisions	-11.5	-12.5	Other liabilities	72.9	83.6
Other assets	126.7	145.6	Capital	528.1	589.9
TOTAL	1,268.7	1,445.2	TOTAL	1,268.7	1,445.2

Source: FBA and BARS, CBBH

At the end of 2023, loans that are overdue for more than one day have a share of 0.7% in total loans, and their share remained at the level of the previous year. Provisions for covering credit losses at the sector level amounted to KM 12.5 million. Looking at the structure of liabilities, liabilities for taken loans represented the main source of MCO funds and recorded a growth of 15.6% compared to the previous year. In the term structure of the microcredit portfolio, long-term microcredits have the largest share with 95.4%. After the maturity structure of the funds sources was significantly improved in 2020, when a majority of short-term liabilities from FBH microcredit organizations loans was replaced with long-term loans, the same trend continued in the following years, including 2023, too. The total capital of the sector at the end of 2023 amounts to KM 590 million and records an increase of 11.7%, compared to the previous year. In the capital structure of the MCO sector, the capital of microcredit foundations accounts for 54.7%, while the capital of microcredit companies accounts for 45.3% of the total sector capital . In 2023, the capital of microcredit foundations and companies grew by 8.6% and 15.4%, respectively. The main source of capital of the MCF is the surplus of income over expenses, which, at the end of the year, amounted to KM 268.8 million, or 83.4% of the total capital of foundations. Similarly, as in the case of MCF, the dominant influence on the capital growth of microcredit companies was the growth of realized profit during the year, so that at the end of 2023, retained earnings make up 47.9% of the total capital of MCC, while the Tier 1 participates with 47.2% in the structure of microcredit companies' capital.

In 2023, the microcredit sector achieved a positive financial result in the amount of KM 70.7 million, which represents an increase of 89.5% compared to the previous year. Total revenues amounted to KM 264.8 million, which is 25.7% higher than the previous year. Looking at the income structure of MCO, interest income is still the dominant source of the sector's income, and thanks to the growth of credit activity, an increase in income based on interest and fees was achieved by 20.7% in 2023. In 2023, the average weighted effective interest rate on total microcredits in FBH was 22.76%, and 30.66% in RS. Interest rates trends in the microcredit sector of both Entities were at approximately the same levels until the end of 2020. However, from the first quarter of 2021, a significant increase in average interest rates has been recorded in the Republika Srpska (RS), due to a continuous increase in average rates on short-term loans of very small amounts (up to KM 400), and the interest rates have been kept at a relatively higher level during 2022. The total expenses of the microcredit sector amounted to KM 189 million and recorded an increase of 11% compared to the previous year. The strongest influence on the growth of total expenses was the growth of operating expenses, which were higher by 11.3% compared to the previous year.

In 2023, the volume of business operations in the leasing sector remained very modest, and despite the recorded growth of the balance sheet, the share of this sector in the assets of financial intermediaries is still extremely low. At the end of 2023, four leasing companies had the operating license, thus compared to the end of the previous year, the number of leasing companies is the same. The total assets of the leasing sector amounted to KM 525.3 million and recorded a growth of 20.2% compared to the previous year. Financial leasing accounts for 83.2% of the value of the leasing contracts, and operational leasing accounts for the remaining 16.8%. The value of newly concluded financial and operational leasing contracts in 2023 amounted to KM 340 million, which is by 28.4% more than in the previous year. At the end of 2023, the leasing sector achieved a positive financial result in the amount of KM 6.5 million, however, it represents a decrease in the amount of KM 2.3 million compared to the previous year. The decrease in profitability in 2023 in the leasing sector was mostly influenced by a significant increase in interest on borrowed funds in the amount of KM 13.3 million, i.e., the a.m. item was increased by 209.6% compared to the previous year. In accordance with the published Information on the FBH banking system's entities with the balance as of 31 December 2023, all leasing companies reported a significant increase in the cost of interest on borrowed funds in 2023, but the biggest contributor was the increase of this item by 190.5% in one leasing company having a 44.5% share in the balance sheet. The debts of the leasing companies were mostly contractually tied to 6 months and 3 months EURIBOR (from 80% - 95% of the financing source) and due to the above, there was a significant increase in expenses based on the used loans. Operating expenses increased by KM 4.5 million, or by 14.9% compared to the previous year.
The total income of leasing companies increased by KM 16 million, which represents an increase of 16% compared to the previous year. Compared to the same period of the previous year, there was an increase in the share of interest income and similar income from the leasing sector in total income, with, at the same time, a decrease in the share of operating income in the total income of the leasing sector. Due to the growth of the EURIBOR 6 months and 3 months, and due to the change in monetary policy at the EU level and the implementation of the protective mechanisms to stabilize the growth of inflation, the sources of the leasing companies' financing, i.e., the prices of these, increased in accordance with the trend of the growth of the EURIBOR rate. Therefore, the increase in income in 2023, compared to the same period of the previous year, is mostly the consequence of the interest rates adjustment with EURIBOR 6 months and 3 months, taking into account that the majority of leasing companies' portfolios consist of contracts linked to these rates.

The leasing sector in BH is very poorly developed and underutilized, and the basic activities of this sector continue to represent a certain type of replacement of classic bank loans, mostly to legal entities, bearing in mind that leasing financing for the household is less favourable than bank loans due to the obligation to pay VAT on the interest.

There was an increase in activity on the insurance market compared to the previous year. In 2023, 24 insurance companies and one reinsurance company operated in BH. The trend of insurance premium's growth from previous years (with the exception of 2020) continued, and the total calculated premium amounted to KM 984 million, and compared to the previous year, it recorded an increase of 11.7%, while the share of the premium in the total GDP is 2.0%. Of the total calculated premium, 79.7% is related to non-life insurance.

The weak representation of voluntary types of insurance continues to represent a key weakness and a limiting factor in the development of the insurance market in BH. The most significant share in the total insurance premium is still held by automobile liability insurance (48.9%). Growth was recorded in all categories of non-life insurance. The calculated premium on life insurance amounted to KM 199.5 million and recorded an increase of 6% compared to the previous year. The total gross paid out damages amount to KM 429.4 million and make up 43.6% of the total calculated premium.

In 2023, 33 investment funds had a license to operate, of which 18 in FBH, and 15 in RS. Out of a total of 33 investment funds, 22 are open investment funds, while 11 funds are closed investment funds. The total value of net assets of investment funds at the end of 2023 amounted to KM 1.04 billion and is lower by KM 27.7 million or 2.6% compared to the end of the previous year. **The total turnover on the BH stock exchanges increased significantly in 2023, given that governments, as the main drivers of activity on the primary market of debt instruments, took on more debt**. The total turnover on BH stock exchanges amounted to KM 1.48 billion and compared to the same period of the previous year, it recorded a significant growth of 37.7%. An increase in turnover was recorded on both domestic stock exchanges, but stronger growth was achieved on the BLSE compared to the SASE. Of the total turnover on the Sarajevo Stock Exchange (SASE), KM 421.9 million, or 28.6% was realized, while the turnover on the Banja Luka Stock Exchange (BLSE) amounted to KM 1.05 billion or 71.4%, which is the first time in history of this stock exchange that the one is higher than one billion KM. Out of the total turnover on BLSE, 84.2% is related to public bids, which is mostly the result of issues of RS bonds and treasury bills. Using the infrastructure of the Sarajevo Stock Exchange, 13 public bids were completed in 2023, in the total amount of KM 387.8 million, that is, 91.9% are public bids, which is the result of the issue of bonds and treasury bills of FBH.

The total market capitalization in BH at the end of 2023 is KM 11.67 billion and compared to the previous year it is 8.8% higher. The increase in market capitalization on SASE amounted to KM 469.6 million (7.8%), while the increase in market capitalization on BLSE amounted to KM 478.7 million (10.1%) compared to the end of 2022. In other segments of the capital market on both stock exchanges, there was no significant impact on the growth of turnover compared to the previous year.

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FINANCIAL INFRASTRUCTURE

6. FINANCIAL INFRASTRUCTURE

6.1 Payment systems

According to its legal obligation, in 2023, the CBBH continued to support and improve payment system functions by modern settlement and payment systems for performance of interbank transactions. Payment transactions were carried out smoothly through giro clearing and real-time gross settlement (RTGS) systems. The Central Registry of Credits (CRC) and the Single Registry of Business Entities' Accounts (SRBEA) were maintained, and the realization of transactions through the international clearing of payments with foreign countries proceeded smoothly. Since 2019, the giro clearing system has been harmonised with the way of working in the European Union (EU), which has fulfilled one of the preconditions for the integration of the CBBH payment systems into the payment systems in the EU.

During 2023, an increase of the number of transactions and the total value of all transactions through giro clearing and RTGS payment systems was recorded. The total value of interbank payment transactions was higher by 11.8% in 2023. The total number of transactions was higher by 2.3% compared to the previous year. In 2023, the first ten banks in BH by volume of transactions participated in the total number of RTGS and giro clearing interbank transactions with 78.49%, which is an increase of 3.25% compared to the previous year. The share of the first ten banks in the total value of transactions also increased from 74.55% in 2022 to 76.24% in 2023.

Table 6.1: Interbank Payment Transactions

Year	The total number of transactions, in million	"The total turnover, million KM"	"Average daily turnover, million KM"	GDP/ average daily turnover
2009	29.0	64,458	251.8	95
2010	31.8	67,779	263.7	94
2011	32.5	76,653	298.3	87
2012	33.8	81,533	318.5	81
2013	35.8	76,605	298.1	88
2014	37.9	87,859	341.9	79
2015	39.1	85,106	326.1	87
2016	40.0	88,380	338.6	86
2017	41.1	96,243	370.2	85
2018	42.3	102,670	393.4	83
2019	43.6	123,046	471.4	74
2020	43.8	105,132	398.2	85
2021	48.0	122,403	470.8	79
2022	49.7	145,825	583.3	78
2023	50.8	163,096	627.3	80

Source: CBBH

The increase of the value of the total payment transactions in 2023 and the faster circulation of money resulted in a decrease of the number of days needed to carry out transactions in the value of the annual nominal GDP (Table 6.1). The number of intrabank transactions increased by 6.7% and interbank transactions by 2.3% compared to the same period last year, with intrabank transactions still dominating in the total number of transactions (62.7 million transactions). The value of intrabank transactions in 2023 amounted to KM 142.02 billion, while the value of interbank transactions amounted to KM 163.10 billion.

Table 6.2. shows the values of the Herfindahl-Hirschman index (HHI[29]), which illustrates the concentration of the total number and value of interbank payment transactions for the 10 banks with the largest shares in both payment systems (giro clearing and RTGS). Although the majority of interbank payment transactions took place among a few large banks, the value of the HHI index indicates a moderate concentration of interbank payment transactions and the absence of systemic risks in payment systems. If the concentration of interbank payment transactions in the 10 largest banks is analysed, with banks from the same group observed as one bank, the concentration index only slightly increases, still indicating a moderate concentration.

Table 6.2: Concentration of the Transactions in Interbank Payment System (HHI)

Period	10 banks with the largest shares	
	Number of transactions	Value of transactions
December 2009	1,233	1,413
December 2010	1,256	1,346
December 2011	1,230	1,287
Decembar 2012	1,278	1,295
December 2013	1,337	1,378
December 2014	1,350	1,310
December 2015	1,314	1,305
December 2016	1,307	1,322
December 2017	1,320	1,349
December 2018	1,344	1,335
December 2019	1,397	1,471
December 2020	1,352	1,249
December 2021	1,373	1,264
December 2022	1,397	1,266
December 2023	1,411	1,248

Source: CBBH

[29] *HHI is a measure of concentration and is calculated as the sum of the squares of individual shares in the observed segment. An index below 1,000 points indicates non-concentration, from 1,000 to 1,800 points moderate concentration, from 1,800 to 2,600 points high concentration, over 2,600 is considered very high concentration up to a maximum of 10,000 when the concentration is monopolistic.*

In 2023, the CBBH continued to maintain the Central Registry of Credits of Natural and Legal Entities (CRC), which provides financial institutions using the database with the data on credit histories and current debt levels of their existing or potential clients, thus enabling them to better assess risks when making decisions on approving loans.

The CBBH also continued to maintain the Single Registry of Business Entities' Accounts in BH, in which 261,543 active and 104,049 blocked accounts were recorded at the end of 2023. After upgrading the system in late 2018, SRBEA has included all accounts of business entities performing payment transactions in BH through accounts opened with banks and the CBBH. SRBEA primarily benefits commercial banks, tax authorities, administrative authorities, law enforcement authorities and other levels of government when identifying financial structures and transactions that companies and individuals can use in an illegal manner, e.g., for tax evasion, money laundering, etc. The Registry also provides information to all legal and natural persons who have to seek the enforced collection of their claims through authorised institutions.

The international clearing of payments between banks from BH and the Republic of Serbia continued in 2023, with the total of 11,655 payment orders in the value of 221.3 million euros effected through the system, which indicates the active use of this platform for settling payment transactions.

6.2 Regulatory Framework

In accordance with the continuation of harmonization of the regulatory framework with the EU, the CBBH is actively working on the project of payment system modernization which is financed by the European Commission and implemented by the World Bank with the aim of joining the Single Euro Payments Area (SEPA). The process of joining the SEPA area and connecting with the EU payment systems is essential for further development of payment systems, and for BH economy in general, given that the SEPA arrangement currently includes 36 countries, and more than 80% of BH import-export transactions are realized with countries from the SEPA area. In this regard, the CBBH has initiated a coordination mechanism in which the Entity Ministries of Finance, the Entity Banking Agencies, the Association of Banks of BH participate, with the aim of BH joining the SEPA. Joining the SEPA area can significantly increase digital payments and reduce the use of informal payment channels, thus contributing to the economic development of the domestic economy and closer integration with the European market.

In February 2024, a new Law on the Prevention of Money Laundering and Financing of Terrorist Activities in BH has been adopted, which was innovated compared to the previous one and which defines actions and procedures in financial and non-financial sectors that are undertaken with the aim of preventing and detecting money laundering and financing of terrorist activities on the basis of risk assessment[30]. By adopting this Law, BH has fulfilled one of the requirements for the opening of negotiations with the EU and thus prevented the possibility of a negative report of the Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism (MONEYVAL).

In order to identify the risk of money laundering in financial sector, the Entity Banking Agencies have adopted the Decision on Managing the Risk of Money Laundering and Financing of Terrorist Activities in BH[31]. Decisions prescribe the rules of organization, governance and responsibility of the authorities, the procedure for assessing the risk of entire operations and individual risk assessments, the manner of implementing measures to identify and monitor transactions and activities of a client, as well as the management of isolated or special risks that are specific for the business model, products or services of the relevant entity. In addition to these decisions, both Agencies published Guidelines for the Analysis and Assessment of the Risk of Money Laundering and Terrorist Activities Financing in BH[32], which guide the banking sector and other payment service providers in terms of identifying, measuring, managing the risk of money laundering and financing of terrorist activities.

During 2023, among the most significant activities in regulating BH banking sector operations, the activities of the Banking Agencies on the introduction of regulations in the field of environmental, social and climate change risk management – ESG (Environmental, Social and Governance) stand out, which represent a significant step in adjustment to supervisory trends from the EU in terms of risk management. Accordingly, in February 2023, the Entity Banking Agencies published the Strategic Framework "Priorities in the Management and Supervision of Risks Related to Climate Change and Environmental Risks in Banking Sector for the Period 2023-2025". The aim of these documents is to set specific measures that will be implemented in those areas that include regulatory measures, risk assessment, supervision, as well as international cooperation in the period from 2023 to 2025. The Banking Agencies also published the Guidelines for Climate Change Risk Management[33], which aim to guide banking sector

[30] *Law on the Prevention of Money Laundering and Financing of Terrorist Activities in BH (Official Gazette of BH, No. 13/24)*

[31] *Decision on Managing the Risk of Money Laundering and Terrorist Financing in BH (Official Gazette of FBH No. 10/24); Decision on Managing the Risk of Money Laundering and Terrorist Financing in BH (Official Gazette of RS No. 22/24).*

[32] *Guidelines for Analysis and Assessment of the Risks of Money Laundering and Terrorist Activities Financing in BH, FBH Banking Agency (Ref. 01-694/24 of 13/02/2024); Guidelines for Analysis and Assessment of the Risk of Money Laundering and Terrorist Activities Financing in BH, the Banking Agency of Republika Srpska (Official Gazette of Republika Srpska, No. 22/24 of 20 March 2024).*

[33] *"Guidelines for the Management of Climate Change Related and*

in terms of identifying, measuring, managing and controlling climate related and environmental risks. In the second half of 2023, a cooperation agreement was signed between the International Finance Corporation (IFC) and the Association of BH Banks (UBBiH) with the aim of providing the banking sector with an integrated ESG approach that addresses local topics, including effective management of environmental, social and climate change risks, as well as sustainability disclosure and reporting, by exchanging practices based on the internationally recognized IFC methodology.

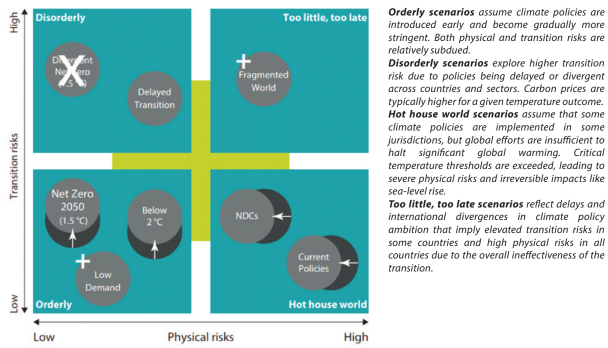
Text box 6: Identifying and managing climate risks in financial sector

As climate change and the transition to a green economy are processes that have a major impact on the overall economic activity, and therefore on the financial system of each country, climate change related and environmental risks are becoming increasingly relevant for banks and other financial institutions and their business environment. Central banks and other banking supervisory institutions around the world have recognized the importance of the financial sector role in the challenges related to climate change and have begun to take measures and activities aimed at identifying and managing climate risks that may affect price stability and financial system, as well as supporting the transition process towards a low carbon economy and financial system greening.

A great number of central banks and other financial and regulatory institutions have adopted comprehensive strategies and action plans clearly defining the areas and activities needed to implement the set goals related to climate change. In November 2020 the ECB published a Guide on Climate-Related and Environmental Risks[34], while in June 2022 the Basel Committee on Banking Supervision (BCBS) issued a document entitled "Principles for the effective management and supervision of climate related financial risks [35]". Central banks and other supervisory institutions in the EU published strategies and guidelines on climate risk management, and are continuously improving methods for measuring the financial institutions exposure to these risks, the used tools including sensitivity analyses and stress tests.

In 2017, leading central banks and regulators established the Network of Central Banks and Banking Supervisors for Greening of the Financial System (NGFS) in Paris to provide a significant global response needed for meeting the goals defined by Paris Agreement, as well as to improve the financial system role in order to manage risks and mobilise capital for green investments. NGFS members[36] share experiences and best practices on a voluntary basis and contribute to the development of environmental and climate risk management in financial sector and mobilize financial support for the transition to sustainable economy. NGFS developed an analytical tool, climate scenarios used in stress tests. Since 2020, the NGFS adapted its climate scenario framework through four phases with the intention of helping central banks and supervisors explore possible impacts on the economy and the financial system as efficiently as possible. Graph TO 6.1 presents Phase IV of the scenario prepared by NGFS with the help of globally recognizable academic research institutions to cover a wide range of physical and transition risks. Seven climate scenarios are classified into four groups. The horizontal axis shows the intensity of physical risks, while the vertical axis shows the level of transition risks that are estimated up to 2100. Compared to the previous phase of the NGFS framework, it can be seen in Graph TO 6.1 that the latest, fourth phase has two new scenarios, and that the positions of the existing scenarios are modified due to the improvement of physical risks modelling including several types of physical risks and are modelled at the country level instead of globally. The analysis concludes that there is an increasing need for even stricter policies, faster technological progress and deeper changes in behaviour as passing time narrows the timeframe for achieving the goal of net zero emissions by 2050, thus increasing transition risks for economies around the world.

Graph TB 6.1: NGFS scenario framework: from Phase III to Phase IV



Source: NGFS
Note: Positioningof scenarios is approximate, based on an assessment of physical and transition risks out to 2100.

Graph TO 6.2 shows a comparison of the "Net Zero Emissions by 2050" scenario implemented in Phase III of 2022 and Phase IV of the 2023 climate scenarios, which shows that, due to delays in the implementation of climate policies, global carbon emissions in the period until 2030 are at a higher level than according to the projections from 2022 and that the implementation of climate policies will require a faster reduction of carbon

Environmental Risks", the Banking Agency of the Federation of BH, July 2023, "Guidelines for the Management of Climate Related and Environment Related Risks", the Banking Agency of Republika Srpska, October 2023.

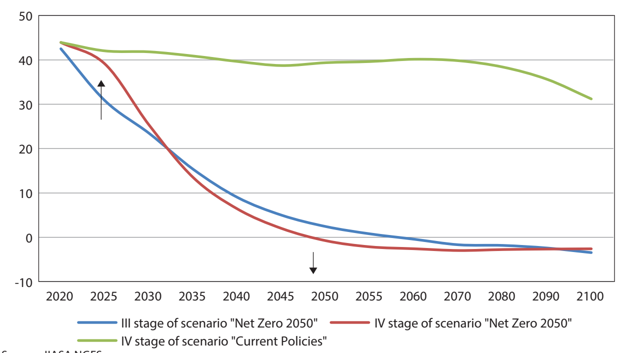
[34] *"Guide on climate-related and environmental risks", ECB, November 2020*

[35] *"Principles for the effective management and supervision of climate-related financial risks", June 2022*

[36] *The Network of Central Banks and Banking Supervisors consists of 138 central banks and supervisory institutions, and 21 observers from five continents, and its headquarters are located at the Bank of France.*

emissions by 2030. For the sake of comparison, the graph additionally shows the projection of carbon emissions according to the "Current Policies" scenario, which shows that, if only the currently applied policies remain in effect, the reduction of global annual carbon emissions will be very slow, i.e., current policies are not effective enough.

Graph TB 6.2: Annual Global Emissions of CO_2: 2022 vs 2023 Versions of Scenario NGFS "Net Zero 2050" and Version of 2023 Scenario "Current Policies"



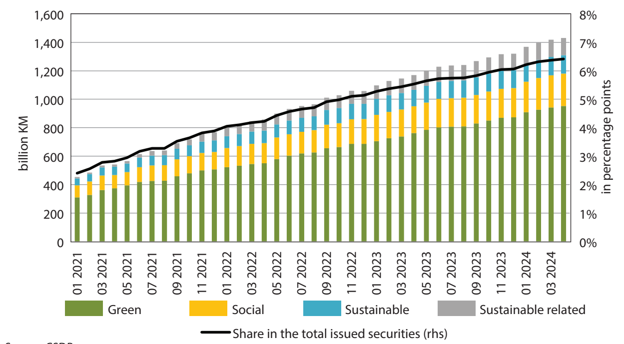
Source: IIASA NGFS
Napomena: Pozicioniranje scenarija je aproksimativno, bazirano na procjeni fizičkog i tranzicijskog rizika do 2100.

Although climate scenarios were progressing through the phases so far, they still have certain limitations, so it is very difficult to include non-linear elements, such as climate breaking points, in the models. In addition, conducting climate tests for a long period of time is quite challenging, so increasing attention is given to the development of analyses that will cover a shorter time horizon, such as three-to-five-year periods. Such short-term scenarios may overcome limitations in the macroeconomic and financial analysis of risks arising from the focus on long-term climate-economic relations as shown in the current climate scenarios of the NGFS, and may include macro-financial shocks in addition to climate shocks and increase sudden effects and amplification mechanisms in the short and medium term. Due to the above, in September 2023, the NGFS published a conceptual note on short-term climate scenarios, in order to inform the public about the conceptual framework that reflects the NGFS considerations on short-term scenarios, with the announcement of their analytical implementation in 2024.

The ECB, together with the central banks of the EU member states, started to develop statistical indicators to analyse climate change. Such statistics are still in the experimental phase and is a part of a broader climate action plan. The aim of establishing these indicators is to help more effective analysis of climate risks with useful information for the implementation of monetary policy, financial stability and banking supervision, as well as to help better understanding of the challenges and opportunities in the transition to green economy and higher transparency on climate related issues. Statistical indicators for the analysis of climate change were first published in January 2023 in two areas: "carbon emissions" and "physical risks", while in November 2023 they were expanded to include indicators on "sustainable finance".

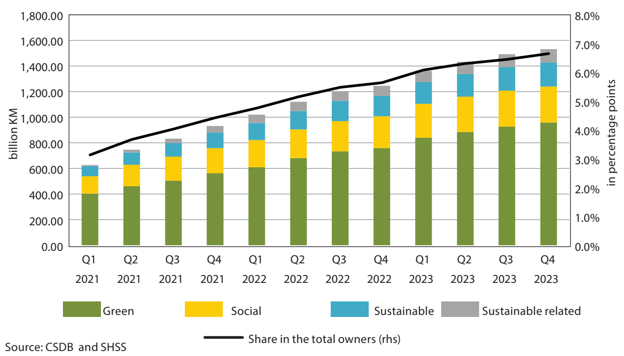
Sustainable finance indicators based on well-established securities statistics are at a more advanced stage than the indicators covering the other two areas. The sustainable finance indicators provide insight into the issuing and holding of debt securities with "green" or "sustainable" features, by euro area residents. These indicators provide information on the income raised to finance sustainable projects, including those that can help the transition to a carbon neutral economy. Although these indicators point to the growth of the volume of financing and investment with "green" and "sustainable" features, the relevance and size of sustainable debt as a whole in the debt securities market accounted for just over 6% of unsettled liabilities of all debt securities amount issued or invested in the euro area at the end of 2023. It can also be concluded that in both cases of issuing and investment in sustainable securities in the euro area, an identical upward trend was seen, with priority maintained by securities with "green" features (Graph TO 6.3 and Graph TO 6.4).

Graph TB 6.3: Sustainable Securities Issued in the Euro Area



Source: CSDB
Note: The share in the total issued securities is related to the amount of sustainable securities in the total issued securities in the euro area

Graph TB 6.4: Owners of Sustainable Securities in the Euro Area



Source: CSDB and SHSS
Note: The share in the total owners is related to the amount of sustainable securities in the amount of all securities of owners from the euro area.

Carbon emission indicators show the financial sector exposure to counterparties with carbon intensive business models and carbon intensive securities and loan portfolios. These indicators are helpful in the sector evaluation, contributing to the financing of transition to carbon neutral economy.

Indicators measuring the financial institutions exposure to physical risks assess the impact of natural disasters caused by climate change on the performance of financial institutions' loans and securities portfolios. The calculation of these indicators is done in several steps, first through the identification of risks by geographical locations ranging from low to high risk, and then the risk scores and expected losses are calculated for companies that are counterparties to financial institutions and aggregated at the sector and country level. Risk reduction strategies include collaterals and insurance, which limit the financial consequences of exposure to physical risks. Climate change is a serious threat to the occurrence of natural disasters in BH as well, and can cause large damage especially to economic sectors such as agriculture and forestry, construction sector, transport, water management, industry and tourism. In addition to the vulnerability to natural disasters, these sectors are also exposed to transition risks as they are subject to new regulations and the obligation to implement new international technology standards.

According to the World Bank's 2022 economic and social survey[37], BH faces a significant risk of natural disasters including floods, landslides, droughts, heatwaves, fires, and earthquakes. More than 20 percent of the land area is vulnerable to flooding, with annual losses of approximately KM 1.2 billion. Unprecedented rainfall in 2014 affected about 25% of the households and severely disrupted the economy, with flooded areas in 81 municipalities, with consequences for agricultural workers, who account for 20 percent of the country's total workforce. Flooding along with mountain relief, outdated infrastructure and a high rate of urbanization have also caused more than 3000 landslides, affecting almost 15% of GDP. By mid-century, climate change is expected to increase temperatures and reduce annual precipitation, which will result in frequent droughts and increased water demand in some areas of the country. These physical risks will have an impact on the banking sector risk profile, and may have a significant impact on the credit, market, operational and liquidity risks in banking sector. On the other hand, the exposure of BH banking sector to transition risk is also not negligible given the banks' exposures to carbon dependent sectors, primarily through exposures to the metal processing sector, construction, transport and warehousing, agriculture and food industry, and fossil fuel energy production. By analysing the structure of the loan portfolio at the end of 2023, loans to these sectors approximately amounted up to one quarter of the total private sector loans at BH level.

BH banking sector should have an important role in facilitating the transition to a new model of sustainable growth, as well as in minimizing the impact of physical and transition risks through proper identification and implementation within its risk framework.

[37] *Concept Environmental and Social Review Summary Concept Stage, March, 2022*

In line with their strategic objectives of harmonization with the EU regulations and international principles in all segments of supervision, BH Banking Agencies are trying to ensure that banks in BH are ready to adequately respond to growing risks arising from climate change. As one of the first steps they took, in 2023 the Agencies prepared documents on strategic priorities on the management and supervision of risks related to climate change and environmental risks in banking sector for the period 2023-2025, as well as guidelines for climate and environmental risk management. The Banking Agencies also reviewed the current climate and environmental risk management practices in BH banking sector. The analysis found that banks in BH are aware of the existence of these risks, but the progress in this segment stayed at a low level. Some banks made progress in the process of introducing elements of environmental, social and governance (ESG) risks in their operations, while some banks are just starting these activities.

Although BH does not yet have a taxonomy as a framework for determining the criteria on the basis of which an economic activity is defined as "green" or "sustainable", banks were recommended to develop these definitions internally using definitions from other international practices, and to apply them to the products they offer to their clients. Finally, banks in BH are expected to take into account climate related and environmental risks in all relevant stages of lending and credit risk management and to adequately assess these risks by using sensitivity analyses and stress testing.

In order to mitigate the risks coming from macroeconomic environment in the circumstances of inflation pressures accompanied by growing interest rates in the international market, both Entity Banking Agencies adopted Decisions on temporary measures to mitigate the risk of interest rate growth in BH in the second half of 2022. The main objective of these decisions is the timely management of credit risk, the protection of financial service users and preserving the banking system stability. The effectiveness of these decisions has been extended until 31 December 2024.

In 2023, the Central Bank of BH adopted new regulations implementing the IMF recommendations for improving the reserve requirement framework, as the only monetary policy instrument available to the CBBH. The Decisions on Supplements to the Decision on the determination and maintenance of reserve requirements and the determination of remuneration on the amount of reserves were made in accordance with the best practices of central banks from the region and the EU with the aim of maximizing the flexibility and efficiency of this instrument. In addition to differentiating the reserve requirement base in KM and EUR currency, and maintaining the reserve requirement in EUR currency for the foreign exchange base, one of the novelties of the reserve requirement framework compared to the previous one is the calculation based on the remaining period to maturity instead of the contractual maturity of funds in bank liabilities that form the base for the reserve requirement calculation. This Decision defines that in the transition period, from January to September 2024, banks maintain the calculated reserve requirement in EUR by keeping 5% of the calculated reserve requirement in EUR in the reserve account in EUR, while the rest is maintained in KM currency.

On 4 July 2024, the National Assembly of Republika Srpska adopted the Proposal of the Law on Supplements to the Law on Banks of Republika Srpska[38], which stipulates that, in addition to commercial banks, Investiciono-razvojna banka Republike Srpske (the Investment and Development Bank of Republika Srpska - IRBRS) may perform the activities of receiving cash deposits or other repayable funds, in accordance with the authorizations to perform these tasks established by the law governing its establishment, legal status and activities. Also, the Proposal of the Law on Amendments Supplements to the Law on the Investment and Development Bank of Republika Srpska was adopted[39], expanding the activities of the IRBRS in such a way that, in addition to the already prescribed activities, the bank can also perform the activities of receiving cash deposits and performing payment transactions. As a result of the supplement to these laws, the National Assembly of Republika Srpska adopted the Law on Supplement to the Law on Internal Payment Transactions[40], which stipulates that payment services may also be provided by electronic money issuing companies, microcredit companies, in line with the licences of the Banking Agency of Republika Srpska, as well as IRBRS (the Investment Development Bank of Republika Srpska). in accordance with its Law and the authorizations governing its operations.

In December 2023, the Law on Electronic Money was adopted in Republika Srpska. This Law regulates the concept of electronic money, the business of issuing electronic money, issuers of electronic money, the conditions for the establishment, business running and operation termination of the company for issuing electronic money, the supervision over the business of issuing electronic money, and the protection of the rights and interests of holders of electronic money. In the course of 2024, the implementation of its provisions and passing of the relevant by-laws in that area have been underway.

38 *"Law on Supplements to the Law on Banks of Republika Srpska" Official Gazette of Republika Srpska, no. 63/24*

39 *"Law on Amendments and Supplements to the Law on Investment and Development Bank of Republika Srpska", Official Gazette of Republika Srpska, no. 63/24*

40 *"Law on Supplement to the Law on Internal Payment System of Republika Srpska", Official Gazette of Republika Srpska, no: 63/24*

Centralna banka
BOSNE I HERCEGOVINE
Централна банка
БОСНЕ И ХЕРЦЕГОВИНЕ

STATISTICAL APPENDIX

Table A1: Real Estate Price Index (2015=100)

		Sarajevo	Mostar	Zenica	Tuzla	Banja Luka	Bijeljina	Trebinje	TOTAL
2004	Q1	58	71	47					**60**
	Q2	58	70	46					**59**
	Q3	58	70	47					**59**
	Q4	59	68	46					**60**
2005	Q1	61	66	48					**61**
	Q2	61	70	47					**61**
	Q3	63	67	47					**62**
	Q4	66	70	50					**65**
2006	Q1	69	72	53					**68**
	Q2	74	71	49					**71**
	Q3	73	70	52					**70**
	Q4	80	60	55					**74**
2007	Q1	87	73	56					**83**
	Q2	98	76	67					**93**
	Q3	108	73	72					**98**
	Q4	117	77	74					**105**
2008	Q1	125	85	78	95				**112**
	Q2	133	82	84	98				**119**
	Q3	132	83	88	106				**120**
	Q4	138	87	99	107				**126**
2009	Q1	129	104	101	97				**120**
	Q2	120	101	100	100				**114**
	Q3	115	105	100	107				**112**
	Q4	111	104	93	115				**109**
2010	Q1	111	100	99	112				**108**
	Q2	111	110	101	110				**110**
	Q3	107	104	99	105				**106**
	Q4	106	106	107	104				**106**
2011.	Q1	105	107	105	97				**105**
	Q2	105	103	107	89				**103**
	Q3	104	98	102	91				**102**
	Q4	105	104	102	89				**103**
2012	Q1	105	112	101	102				**106**
	Q2	104	101	109	96				**103**
	Q3	101	104	95	94				**100**
	Q4	100	101	103	96				**100**
2013	Q1	101	108	105	93				**102**
	Q2	99	109	104	90				**100**
	Q3	98	105	97	94				**99**
	Q4	97	109	106	90				**99**
2014	Q1	98	104	98	95				**99**
	Q2	96	102	97	93				**97**
	Q3	98	94	99	99				**98**
	Q4	98	96	101	92				**98**

		Sarajevo	Mostar	Zenica	Tuzla	Banja Luka	Bijeljina	Trebinje	TOTAL
2015	Q1	98	101	100	98	93	102	103	**98**
	Q2	101	99	99	101	109	82	97	**101**
	Q3	98	103	102	100	101	92	99	**100**
	Q4	102	97	99	100	101	118	101	**101**
2016	Q1	98	94	97	96	96	68	106	**97**
	Q2	99	97	104	99	102	93	100	**100**
	Q3	102	114	101	96	106	89	106	**104**
	Q4	103	113	104	98	106	94	105	**105**
2017	Q1	103	110	104	97	100	93	98	**102**
	Q2	104	96	105	97	98	94	89	**100**
	Q3	103	104	104	103	98	102	102	**102**
	Q4	107	93	105	100	96	100	97	**102**
2018	Q1	107	103	103	100	100	96	103	**104**
	Q2	108	110	102	100	98	100	101	**105**
	Q3	108	104	102	102	98	99	108	**105**
	Q4	109	106	102	104	100	98	108	**106**
2019	Q1	112	105	106	103	104	97	111	**108**
	Q2	113	110	109	109	97	99	106	**109**
	Q3	112	109	113	109	97	102	108	**108**
	Q4	115	108	107	108	100	104	110	**111**
2020	Q1	115	109	112	110	95	103	107	**111**
	Q2	116	122	125	103	101	109	94	**113**
	Q3	117	113	123	118	100	104	114	**114**
	Q4	118	106	121	117	96	102	103	**113**
2021	Q1	119	112	123	121	103	99	124	**116**
	Q2	121	117	127	120	109	105	122	**118**
	Q3	124	113	126	126	112	111	133	**121**
	Q4	128	107	131	130	113	117	132	**125**
2022	Q1	138	114	134	136	128	127	128	**133**
	Q2	141	123	139	137	126	126	138	**136**
	Q3	149	127	144	137	133	139	136	**142**
	Q4	156	129	141	139	143	131	145	**148**
2023.	160	119	157	157	150	135	158	151	**133**
	168	125	175	166	143	147	155	158	**136**
	179	130	178	177	150	150	176	168	**143**
	180	133	178	184	153	146	194	171	**148**

Source: CBBH

Table A2: Financial Soundness Indicators

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Capital adequacy											
Tier 1 ratio	15.2	14.3	13.8	15.0	14.8	16.5	17.5	18.1	18.7	18.7	18.7
Regulatory capital ratio	17.8	16.3	14.9	15.8	15.7	17.5	18.0	19.2	19.6	19.6	19.7
CET 1 ratio	n/a	n/a	n/a	n/a	n/a	16.5	17.5	18.1	18.7	18.7	18.7
Financial leverage ratio	n/a	n/a	n/a	n/a	n/a	n/a	10.5	10.2	10.0	9.9	10.1
Non-performing loans reduced by the provisions to regulatory capital	26.4	24.6	24.9	17.6	13.5	11.4	9.6	7.4	7.0	4.7	3.8
High exposure in relation to capital	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	81.4	83.8	103.3
Assets quality											
Non-performing assets to the total assets	11.3	10.5	10.0	8.3	7.1	6.2	5.2	3.4	3.2	2.5	2.1
Non-performing loans to the total loans	15.1	14.2	13.7	11.8	10.0	8.8	7.4	6.1	5.8	4.5	3.8
Provisions for NPL to non-performing loans	66.7	69.7	71.2	74.4	76.7	77.4	77.0	78.4	78.4	81.4	81.7
Loans concentration by economic activity	n/a	n/a	n/a	n/a	n/a	n/a	73.1	72.0	71.3	71.7	71.2
Profitability											
Return on average assets	-0.1	0.8	0.3	1.1	1.4	1.3	1.4	0.7	1.3	1.6	2.0
Return on average equity	-1.2	4.5	0.9	6.2	9.0	8.5	9.1	5.6	9.6	12.0	15.0
Net interest income to the total income	62.3	61.6	62.0	60.4	58.3	58.8	56.8	56.0	59.2	56.6	63.3
Income from financial instruments trading to total income	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0
Non-interest expenses to the total income	101.2	85.7	94.5	80.7	73.3	74.0	71.0	83.0	60.1	55.7	52.6
Costs of wages and contributions to non-interest expenses	28.1	32.9	29.2	31.5	32.9	33.2	34.1	29.8	43.8	44.1	42.8
Liquidity											
Liquid assets to total assets	26.2	26.6	26.2	26.9	28.1	29.3	29.2	28.6	30.7	30.5	29.0
Liquid assets to short-term financial liabilities	65.9	65.6	61.9	61.6	59.9	60.4	61.0	51.3	51.3	48.4	47.2
Liquidity coverage ratio (LCR)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	216.9	213.8	218.1
Net stable funding ratio (NSFR)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	168.8	163.5	159.9
Deposits to loans	87.2	92.4	96.9	101.7	105.1	109.6	112.7	120.7	130.3	130.8	131.0
Short-term financial liabilities to the total financial liabilities	47.2	48.1	50.3	52.1	55.7	57.2	56.2	65.4	68.8	72.6	71.1
Foreign exchange risk											
Indexed and foreign currency loans to the total loans	68.8	68.0	67.1	62.6	60.1	56.7	53.9	53.9	50.2	43.3	37.6
Liabilities in foreign currencies to the total financial liabilities	63.8	62.7	60.3	57.4	55.1	53.3	50.7	48.1	44.4	42.5	41.2
Net open position	5.7	9.0	8.3	1.6	-0.2	2.1	3.4	4.2	4.0	1.0	1.5
Number of banks	23	23	23	23	23	23	23	23	22	21	21

Source: CBBH

Note: Compilation of FSI for the banking sector of BH from the fourth quarter of 2021 is based on the IMF 2019 Financial Soundness Indicators Compilation Guide (FSI 2019 Guide).

Table A3: Overview of theTotal Assets, Loans, Deposits and Financial Performance of Banks in BH, 31 December 2023

	Bank	Total assets		Loans		Deposits		Gain/loss	
		amount	%	amount	%	amount	%	amount	%
1.	Privredna banka Sarajevo d.d. Sarajevo	635,321	1.6	378,531	1.6	521,310	1.6	10,742	1.5
2.	UNION banka d.d. Sarajevo	1,114,891	2.9	506,502	2.2	950,644	3.0	5,350	0.8
3.	NLB banka d.d Tuzla	1,792,923	4.6	1,159,726	4.9	1,464,320	4.6	24,910	3.5
4.	ASA banka d.d. Sarajevo	3,031,409	7.8	1,855,139	7.9	2,615,241	8.3	46,005	6.5
5.	"BOSNA BANK INTERNATIONAL" d.d. Sarajevo	1,546,523	4.0	987,806	4.2	1,315,804	4.2	23,349	3.3
6.	INTESA SANPAOLO BANKA d.d. Bosna i Hercegovini	2,620,819	6.7	1,767,967	7.5	2,039,693	6.4	27,450	3.9
7.	Raiffeisen bank d.d. Sarajevo	5,212,766	13.3	2,950,678	12.5	4,311,960	13.6	121,960	17.3
8.	Ziraatbank BH d.d.	1,429,037	3.7	1,030,156	4.4	1,075,382	3.4	32,988	4.7
9.	ProCredit bank d.d. Sarajevo	921,419	2.4	582,617	2.5	724,096	2.3	10,699	1.5
10.	Sparkasse Bank d.d. Sarajevo	2,265,886	5.8	1,507,397	6.4	1,887,309	6.0	32,671	4.6
11.	Komercijalno investiciona banka d.d. Velika Kladuša	128,572	0.3	55,100	0.2	94,968	0.3	1,758	0.2
12.	Addiko bank d.d. Sarajevo	1,120,293	2.9	578,441	2.5	902,815	2.9	16,669	2.4
13.	UniCredit bank d.d. Mostar	7,205,726	18.4	4,115,986	17.5	5,996,128	19.0	161,990	23.0
14.	UniCredit bank a.d. Banja Luka	1,275,916	3.3	724,115	3.1	938,177	3.0	22,776	3.2
15.	Addiko bank a.d. Banja Luka	1,012,725	2.6	681,772	2.9	805,209	2.5	23,533	3.3
16.	Naša banka a.d. Bijeljina	329,053	0.8	175,713	0.7	266,481	0.8	2,068	0.3
17.	Nova banka a.d. Banja Luka	2,871,084	7.4	1,733,886	7.4	2,207,878	7.0	55,528	7.9
18.	NLB bank a.d. Banja Luka	2,046,474	5.2	1,122,265	4.8	1,645,018	5.2	49,186	7.0
19.	Atos bank a.d. Banja Luka	1,213,691	3.1	772,796	3.3	920,810	2.9	24,616	3.5
20.	Banka Poštanska štedionica a.d. Banja Luka	493,117	1.3	244,194	1.0	382,131	1.2	2,376	0.3
21.	MF banka a.d. Banja Luka	788,517	2.0	601,801	2.6	574,403	1.8	9,189	1.3
TOTAL		**39,056,162**	**100**	**23,532,589**	**100**	**31,639,777**	**100**	**705,813**	**100**

Table A4: Status Changes in Banks in the Period 2001-Q2/2024

Number	Bank	Type of change	Date of change
1	Sparkasse Bank d.d. Bosna i Hercegovina Sarajevo	Sparkasse Bank d.d. Sarajevo changed its name into Sparkasse Bank d.d. BiH Sarajevo	Q3 2014
	Sparkasse Bank d.d. Sarajevo	ABS banka d.d. Sarajevo changed its name into Sparkasse Bank d.d. Sarajevo	Q3 2009
	ABS banka d.d. Sarajevo	Became a member of Steiermaerkische Bank und Sparkassen AG, Erste Group	Q4 2006
	Šeh-in banka d.d. Zenica	Merged to ABS banka d.d. Sarajevo	Q2 2002
2	Bosna Bank International (BBI) d.d. Sarajevo		
3	Privredna banka Sarajevo d.d. Sarajevo	BOR banka d.d. Sarajevo changed its name into Privredna banka Sarajevo d.d. Sarajevo	Q1 2017
	BOR banka d.d. Sarajevo	Privredna banka Sarajevo d.d. Sarajevo merged to BOR banka d.d.Sarajevo	Q4 2016
	Prviredna banka Sarajevo d.d. Sarajevo	Privredna banka Sarajevo d.d. Sarajevo merged with BOR banka d.d. Sarajevo	Q4 2016
4	UniCredit Bank d.d. Mostar		
	UniCredit Zagrebačka banka BiH d.d. Mostar	UniCredit Zagrebačka banka BiH changed its name into UniCredit Bank d.d. Mostar	Q1 2008
	Zagrebačka banka BH d.d. Mostar	Merging with Univerzal banka d.d. Sarajevo into UniCredit Zagrebačka banka BiH	Q3 2004
	Univerzal banka d.d. Sarajevo	Merger with Zagrebačka banka BH d.d. Mostar into UniCredit Zagrebačka banka BiH	Q3 2004
	HVB Central Profit banka d.d. Sarajevo	HVB Central profit banka Sarajevo merged to UniCredit Zagrebačka banka BiH	Q1 2008
	HVB banka d.d. Sarajevo	Merger with Central Profit banka into HVB Central Profit banka d.d. Sarajevo	Q4 2004
	Central Profit banka d.d. Sarajevo	Merger with HVB banka d.d. Sarajevo into HVB Central Profit banka d.d. Sarajevo	Q4 2004
	Travnička banka d.d. Travnik	Merged to Central Profit banka d.d. Sarajevo	Q4 2002
5	UniCredit Bank a.d. Banja Luka	Nova Banjalučka banka a.d. Banja Luka changed its name	Q2 2008
	Nova Banjalučka banka a.d. Banja Luka	Merged to HVB group, continued its operations as a separate legal entity	Q4 2005
	Banjalučka banka a.d. Banja Luka	Privatised and changed its name into Nova Banjalučka banka a.d. Banja Luka	Q1 2002
6	Addiko Bank d.d. Sarajevo		
	Hypo Alpe Adria Bank d.d. Mostar	Hypo Alpe Adria Bank d.d. Mostar changed its name and seat	Q4 2016
7	Addiko Bank a.d. Banja Luka		
	Hypo Alpe Adria Bank a.d. Banja Luka	Hypo Alpe Adria Bank a.d. Banja Luka changed its name	Q4 2016
	Kristal banka a.d. Banja Luka	Kristal banka a.d. Banja Luka changed its name	Q3 2003
8	ASA banka d. d.Sarajevo		
	ASA banka Naša i snažna d. d.Sarajevo	Merged to ASA bank d.d. Sarajevo	Q4 2022
	ASA banka Naša i snažna d. d. Sarajevo	Sberbank BH d.d. Sarajevo changed the ownership in the process of restructuring.	Q2 2022
	Vakufska banka d. d. Sarajevo	Merged to ASA bank d.d. Sarajevo	Q4 2021
	Investiciono komercijalna banka (IKB) d. d. Zenica	IKB d.d. Zenica changed its name and seat into ASA banka d.d. Sarajevo	Q4 2016
	MOJA banka d. d. Sarajevo	MOJA banka d.d. Sarajevo merged with Investiciono komercijalna banka d.d. Zenica	Q3 2016
	FIMA banka d. d. Sarajevo	Changed its name into MOJA banka d.d. Sarajevo	Q4 2010
	VABA banka d. d. Sarajevo	Changed its name into FIMA banka d.d. Sarajevo	Q3 2007
	Validus banka d. d. Sarajevo	Changed its name into VABA banka d.d. Sarajevo	Q1 2007
	Ljubljanska banka d. d. Sarajevo	Established Validus banka took over a part of assets and liabilities of Ljubljanska banka d.d. Sarajevo	Q3 2006
	ASA banka Naša i snažna d. d.Sarajevo	Sberbank d.d. Sarajevo changed the name into ASA banka Naša i snažna d.d.Sarajevo	Q2 2022
	Sberbank d .d. Sarajevo	ASA Finance d.d. Sarajevo became the owner of Sberbank d.d. Sarajevo	Q1 2022
	Sberbank d. d. Sarajevo	Volksbank d.d. Sarajevo changed the name into Sberbank d.d. Sarajevo	Q1 2013
	Volksbank d.d. Sarajevo	Sberbank group aquired Volksbank d.d Sarajevo	Q1 2012
9	Komercionalno investiciona banka (KIB) d.d. Velika Kladuša		
10	NLB Banka d.d. Sarajevo		
	NLB Tuzlanska banka d.d. Tuzla	NLB Tuzlanska banka d.d. Tuzla changed its seat and name into NLB Banka d.d. Sarajevo	Q1 2012
	Tuzlanska banka d.d. Tuzla	Tuzlanska banka d.d. Tuzla changed its name into NLB Tuzlanska banka d.d.	Q3 2006
	Comercebank bančna skupina NLB d.d. Sarajevo	Merged to Tuzlanska banka d.d. Tuzla	Q3 2006
11	NLB Banka a.d. Banja Luka		
	NLB Razvojna banka a.d. Banja Luka	NLB Razvojna banka a.d. Banja Luka changed its name into NLB a.d. Banja Luka	Q4 2015
	LHB banka a.d. Banja Luka	Merger with Razvojna banka jugoistočne Evrope into NLB Razvojna banka a.d. BL	Q2 2006
	Razvojna banka jugoistočne Evrope a.d. Banja Luka	Merger with LHB banka a.d. Banja Luka into NLB Razvojna banka a.d. Banja Luka	Q2 2006
12	Raiffeisen Bank d.d. BiH, Sarajevo		
	Raiffeisen Bank HPB d.d. Mostar	Merged to Raiffeisen banka d.d. Sarajevo	Q1 2003
13	ProCredit Bank d.d. Sarajevo	Microenterprise bank d.d. Sarajevo changed its name into ProCredit Bank	Q4 2003

Number	Bank	Type of change	Date of change
14	ZiraatBank BH d.d. Sarajevo	Turkish Ziraat Bank Bosnia d.d. Sarajevo changed its name into Ziraat Bank BH	Q1 2013
15	Union banka d.d. Sarajevo		
16	Atos bank a. d. Banja Luka	Sberbank a.d. Banja Luka changed its name into Atos bank a.d. Banja Luka	Q2 2022
	Sberbank a. d. Banja Luka	Nova banka a.d. Banja Luka became owner of Sberbank a.d. Banja Luka, in the process of restructuring.	Q2 2022
	Sberbank a. d. Banja Luka	Volksbank a.d. Banja Luka changed its name	Q1 2013
	Volksbank a. d. Banja Luka	Sberbank group acquired Volksbank a.d. Banja Luka	Q1 2012
	Zepter Komerc banka a. d. Banja Luka	Became a member of Volksbank International AG, changed its name into Volksbank a.d. BL	Q3 2007
17	Intesa Sanpaolo banka d.d. BiH		
	UPI banka d.d. Sarajevo	Changed its name into Intesa Sanpaolo banka d.d. BiH	Q3 2008
	LT Gospodarska banka d.d. Sarajevo	Merged to UPI banka d.d. Sarajevo	Q3 2007
	Gospodarska banka d.d. Sarajevo	Merger with LT Komercijalna banka Livno into LT Gospodarska banka d.d. Sarajevo	Q1 2003
	LT Komercijalna banka d.d. Livno	Merger with Gospodarska banka Sarajevo into LT Gospodarska banka d.d. Sarajevo	Q1 2003
18	Nova banka a.d. Banja Luka	Nova banka a.d. Bijeljina changed its seat	Q3 2007
	Agroprom banka a.d. Banja Luka	Merged to Nova banka a.d. Bijeljina	Q1 2003
19	Naša banka a.d. Banja Luka		
	Naša banka a.d. Bijeljina	Changed its name into Naša banka a.d. Banja Luka	Q2 2024.
	Pavlović International Banka a.d. Slobomir Bijeljina	Changed its name into Naša banka a.d. Bijeljina	Q4 2019.
	Privredna banka a.d. Doboj	Merged to Pavlović International banka	Q2 2003.
	Privredna banka a.d. Brčko	Merged to Pavlović International banka	Q4 2002.
	Semberska banka a.d. Bijeljina	Merged to Pavlović International banka	Q4 2001.
20	Banka Poštanska štedionoca a.d. Banja Luka		
	Komercijalna banka a.d. Banja Luka	Komercijalna banka changed its name into Banka Poštanska štedionoca a.d. Banja Luka	Q1 2022
	Komercijalna banka a.d. Banja Luka	Banka Poštanska štedionica a.d. Beograd bought Komercijalna banka a.d. Banja Luka	Q4 2021
21	MF banka a.d. Banja Luka		
	IEFK banka a.d. Banja Luka	Changed its name into MF banka a.d. Banja Luka	Q3 2010

	Banks with revoked operating licence since 2002:	Date of change
1	Camelia banka d.d. Bihać	Q1 2002
2	Privredna banka a.d. Gradiška	Q1 2002
3	Ekvator banka a.d. Banja Luka	Q1 2002
4	International Commercial Bank Bosnia d.d. Sarajevo	Q3 2002
5	Banka za jugoistočnu Evropu Banja Luka	Q4 2002
6	Privredna banka a.d. Srpsko Sarajevo	Q4 2004
7	Gospodarska banka d.d. Mostar	Q4 2004
8	Ljubljanska banka d.d. Sarajevo	Q3 2006
9	Hercegovačka banka d.d. Mostar	Q3 2012
10	Postbank BH Poštanska banka BiH d.d. Sarajevo	Q2 2013
11	Bobar banka a.d. Bijeljina	Q4 2014
12	Banka Srpske a.d. Banja Luka	Q2 2016
13	Vakufska banka d.d. Sarajevo	Q4 2021
14	ASA banka Naša i snažna d.d.Sarajevo	Q4 2022

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