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CENTRALNA BANKA BOSNE I HERCEGOVINE
ЦЕНТРАЛНА БАНКА БОСНЕ И ХЕРЦЕГОВИНЕ

Financial Stability Report

2019

CENTRALNA BANKA
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БОСНЕ И ХЕРЦЕГОВИНЕ

FINANCIAL STABILITY REPORT 2019

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Abbreviations

BARS	Banking Agency of RS
BH	Bosnia and Herzegovina
BHAS	Agency for Statistics of BiH
BLSE	Banja Luka Stock Exchange
CAC 40	French Stock Exchange Index (Cotation Assistée en Continue)
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	Index on Securities Stock Exchange in Frankfurt (Deutscher Aktien Index)
DIA	Deposit Insurance Agency
EBA	European Banking Authority
ECB	European Central Bank
EONIA	Euro Overnight Index Average
EUR	Euro
€STR	Euro short-term rate
EU	European Union
FBA	Banking Agency of FBH
FBH	Federation of BH
FED	Federal Reserve System
FTSE	London Stock Exchange Index (the Financial Times Stock Exchange Index)
GBP	Great Britain pound
GDP	Gross domestic product
HHI	Herfindahl-Hirschman's Index
ILO	International Labor Organization
IMF	International Monetary Fund
KM	Convertible mark
KWD	Kuwaiti dinar
MCO	Microcredit organizations
MFT of BH	Ministry of Finance and Treasury of Bosnia and Herzegovina
MONEYVAL	Council of Europe Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism
NACE	Statistical classification of economic activities in the EU
NPL	Non-performing 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
SASE	Sarajevo Stock Exchange
SRTA	Single Registry of Transactions Accounts
S&P	Standard and Poor's
USA	United States of America
USD	The United States dollar
TLTRO 3	Targeted longer-term refinancing operations III
WEO	World Economic Outlook
WTO	World Trade Organization
WTI	The price of Brent oil in US market – West Texas Intermediate

Countries:

CY	Cyprus
ES	Spain
FR	France
GR	Greece
HR	Croatia
IE	Ireland
IT	Italy
PT	Portugal
RS	Serbia
SI	Slovenia
SK	Slovakia
TR	Turkey

Introduction

For the CBBH, the financial stability is a state in which the financial system can absorb shocks without significant disturbances in its current and future functioning and whose functioning does not have a negative impact on the economy.

The CBBH mandate to monitor the stability of the financial system indirectly derives from the CBBH Law. The CBBH has 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 basic tasks of the CBBH is the establishment and maintenance of appropriate payment and accounting systems, as part of the financial infrastructure. The CBBH contributes to the maintenance of financial stability through the legally established competence to coordinate the activities of the Entities' Banking Agencies. The CBBH, in accordance with the decision of the Governing Board, participates in the work of international organizations while strengthening financial and economic stability, through international monetary cooperation. The activities of the CBBH in the field of monitoring the stability of the financial system include specialized communication with relevant international and domestic institutions, and this ensures the continuity of the process of monitoring systemic risks. The CBBH contributes to the preservation of financial stability within the membership in the BH Standing Committee for Financial Stability

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

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

Although the focus of this Report is on the events of 2019, its coverage has been extended to the most important events from the first half of 2020, in accordance with the available data at the time of preparation. The Financial Stability Report for 2019 is prepared in chapters as follows: the Summary highlights the most important risks to the stability of the financial system. The first Chapter presents the main trends and risks from the international environment. Within this Chapter, main EU and the euro area risks are singled out, and their effects on the banking sector and the real economy of this geographical area are described, with a focus on risks that may 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 financial system in BH. The third Chapter provides an overview of the main trends and risks coming from the fiscal sector.

The fourth Chapter illustrates the effects of the risks, identified in the previous Chapters, on claims on households. The focus of the fifth Chapter is the effects of the identified risks on the corporate sector. Chapter 6 assesses the effects of risk on the stability of the financial sector, with a focus on the banking sector. Chapter 7 illustrates the basic trends in financial infrastructure: payment systems and the regulatory framework. The Financial Stability Report for 2019 contains six text boxes: ECB measures in the field of monetary policy and banking supervision in response to the Coronavirus pandemic; Assessment of major macro-financial risks to financial stability; Real estate market as an indicator of economic activity and financial stability risks; Activities and measures of governments in BH to stabilize the economy and mitigate the negative economic consequences of the Coronavirus pandemic; Network analysis of systemic risk spill overs and Stress tests.

Finally, it should be emphasized that this Report deals exclusively with issues of importance for systemic risk, because the supervision of financial intermediaries, in accordance with applicable laws in BH, is the task of the competent supervisors for the financial sector. Its main goal is to point out the risks coming from the financial system, as well as the macroeconomic environment, and to assess the system's ability to absorb these shocks.

Summary

The main characteristics of the global economy in 2019 are: continued slowdown in global economic growth due to slowing economic growth in developed economies and developing countries and emerging markets, weakening global trade, due to escalating trade tensions, increased geopolitical uncertainty in the Middle East, and the implementation of the accommodative monetary policy of leading central banks due to constantly low inflation rates. In 2019, the global economy achieved its lowest level of economic growth since the beginning of the global economic crisis in 2008. The uncontrolled spread of Coronavirus in late 2019 and the declaration of a pandemic in early 2020, has led to a significant contraction in many branches of economic activity, and it is certain that in 2020 most countries will be affected by the recession. EU countries are not exempt from general trends, and the high level of public debt of euro area countries, and the ongoing process of Britain's exit from the EU, represent additional risks for this group of countries. The key risks to financial stability in the euro area are the weakening of banks' profitability, the strengthening of market risks due to the volatility of yields on bonds of countries with high public debt, and the growth of operational risks related to data security.

In 2019, the risks from the domestic macroeconomic environment weakened slightly. External vulnerabilities arising from the country's balance of payments position have been mitigated. The reduction of the total external debt of BH, as well as the positive shifts recorded in the labour and real estate markets had a favourable effect on financial stability. However, weaker growth of real economic activity compared to the previous year, high unemployment rate, low competitive position of the country, as well as low purchasing power of the population do not allow significant mitigation of risks from the domestic macroeconomic environment. International rating agencies kept BH's long-term credit rating unchanged in 2019, but in 2020, S&P, as part of an extraordinary assessment for most countries, reduced the credit rating outlook from positive to stable, due to the negative economic consequences of the pandemic.

More favourable conditions on the labour market contributed to a slight increase in consumption and an increase in household indebtedness, which is largely due to the growth of household indebtedness from banks' loans. The continuation of the downward trend in lending interest rates had a favourable effect on the growth of demand for loans, and in 2019, banks largely approved non-purpose and replacement loans with more favourable repayment terms. The quality of the loan portfolio continued to improve slightly in the household segment, but the intensity of reclassification of loans into non-performing loans was stronger than in previous years. The growth of total household deposits was largely, as in previous years, determined by the growth of funds on transaction accounts and demand deposits, however, after several years of stagnation, there was a slight increase in household savings.

The total indebtedness of the corporate sector in 2019 increased slightly compared to the previous year. Interest rates on loans maintained a declining trend, which enabled companies to borrow on relatively favourable terms. As in previous years, the corporate sector relied mostly on bank credit support in financing its business activities. The decrease in non-performing loans in the non-financial corporations sector continued, and a lower default rate was recorded, which indicates a weakening of credit risk. Exposure to interest rate risk has slightly increased, due to somewhat more intensive credit borrowing with a variable interest rate, while currency risk still does not represent a significant source of risk due to the monetary regime in BH.

In 2019, the banking sector of BH recorded the continuation of positive trends from the previous year and the weakening of risks to financial stability arising from the banking sector. All financial health indicators have improved and moderate lending activity has been recorded. The remaining maturity of total liabilities of the banking sector slightly improved compared to the previous year, thanks to the growth of time deposits in 2019. Nevertheless, it can be assessed that the maturity structure of funding sources currently represents one of the key risks to financial stability. The results of top-down stress tests indicate that the banking sector is able to absorb strong macroeconomic shocks.

On 2019, the Central Bank of BH fulfilled its legal obligation to maintain appropriate payment systems. Payment transactions were uninterrupted through gyro clearing and real-time gross settlement systems (RTGS). Activities on the modernization of payment systems in Bosnia and Herzegovina continued, with the aim of adapting them to

European standards and integrating them into European trends. Central Registry of Credits of Business Entities and Natural Persons in Bosnia and Herzegovina (CRC) was upgraded, as well as, the giro clearing system, which achieved one of the preconditions in the integration of the CBBH payment systems into the payment systems in the EU. The carrying out of transactions through international clearing of payments with foreign countries also proceeded smoothly.

In 2019 and the first half of 2020, domestic institutions continued to adopt new bylaws, which significantly completed a key set of legal regulations within the Entities' banking laws. It is important to point out that with the adoption of the new Law on Deposit Insurance in BH Banks, on June 17, 2020, it was finally completed the banks operations legal framework.

1. Trends and Risks from International Environment

The main characteristics of the global economy in 2019 are: continued slowdown in global economic growth, weakening of global trade, weaker growth of the US and Chinese economies due to the continuation of the trade war, simultaneous slowdown in economic growth in most countries regardless of development, low inflation in the EU and the euro area, heightened geopolitical uncertainties in the Middle East, falling oil and other energy prices on world markets, and policies of monetary easing by leading central banks. In generally weak macroeconomic conditions, the Coronavirus pandemic has led to an increase in uncertainty about the prospects for global recovery in the coming period.

Increasing global uncertainty in the context of growing trade protectionism and the consequences of the UK's exit from the EU, weakening investment spending and the crisis in some emerging markets have adversely affected world trade in 2019. The slowdown in economic growth and falling prices for crude oil (and other energy sources) have had the effect of further weakening global inflation.

The outbreak of the Coronavirus epidemic in late 2019 in China, which was declared a pandemic by the WHO in early 2020, due to its rapid and uncontrolled spread to the rest of the world, stopped production and consumption in almost all economies around the world in mid-March 2020. Within just three months, the projection of global economic growth for 2020 was reduced by 6 percentage points (from 3% in January 2020 to -3% in April 2020). Due to the uncertainty regarding the spread of the Coronavirus pandemic, and unprecedented restrictions on the movement of people and goods, the cessation of economic activity in countries around the world continued during the second quarter of 2020, due to which in May 2020, the negative economic growth in more than 170 countries was projected. According to the latest available OECD projections from the beginning of June 2020, the global economy is projected to decline by 6% in 20y20.

1.1. Trends in the international environment

The slowdown in global economic growth continued in 2019, so that the global economy with its growth rate of 2.9% reached the lowest level since the beginning of the global economic crisis in 2008.

Due to the outbreak of the Coronavirus pandemic, the IMF projections from April 2020 have been significantly reduced compared to those from October 2019 (Table 1.1). According to projections from April 2020, the IMF predicted a 3% decline of the global economy, but due to the extreme complexity of the crisis that led to shocks on the supply side (cessation of production) and on the demand side (reduced consumption), the latest available projections indicate that that the Coronavirus pandemic will cause a much deeper recession, probably worse than the one caused by the global economic crisis 12 years ago. The largest decline in activity is expected in the euro area and EU countries (-7.5% and -7.1%), due to a large decline of the leading economies of Germany (-7.0%) and Italy (-9.1%). Developing and emerging markets have the smallest projected decline in the economic activity of -1.1%, solely due to China being the only country with projected economic growth in 2020 of 1.2%, the lowest projection of economic growth for this country in the last four decades.

Table 1.1: Real GDP, Annual Growth Rate

	Real GDP, annual growth rate					Change relative to the October 2019 projection		
	2017	**2018**	**2019**	**2020**	**2021**	**2019**	**2020**	**2021**
The World	**3,9**	**3,6**	**2,9**	**-3,0**	**5,8**	**-0,1**	**-6,4**	**2,2**
Developed economies	2,5	2,2	1,7	-6,1	4,5	0,0	-7,8	2,9
USA	2,4	2,9	2,3	-5,9	4,7	0,0	-8,0	3,0
EU	2,9	2,3	1,7	-7,1	4,8	0,1	-8,8	3,1
Euro area	2,5	1,9	1,2	-7,5	4,7	0,1	-8,9	3,3
Great Britain	1,9	1,3	1,4	-6,5	4,0	0,2	-8,0	2,5
Japan	2,2	0,3	0,7	-5,2	3,0	-0,2	-5,6	2,6
Developing countries and emerging markets	4,8	4,5	3,7	-1,1	6,6	-0,2	-5,6	1,8
Russia	1,8	2,5	1,3	-5,5	3,5	0,3	-7,3	1,5
China	6,9	6,8	6,1	1,2	9,2	0,0	-4,6	3,3
European developing countries and emerging markets	4,0	3,2	2,1	-5,2	4,2	0,3	-7,7	1,6
Main foreign trade partners								
Germany	2,5	1,5	0,6	-7,0	5,2	0,0	-8,2	3,7
Croatia	3,1	2,7	2,9	-9,0	4,9	-0,1	-11,7	2,4
Serbia	2,0	4,4	4,2	-3,0	7,5	0,7	-7,0	3,5
Italy	1,7	0,8	0,3	-9,1	4,8	0,3	-9,7	4,1
Slovenia	4,8	4,1	2,4	-8,0	5,4	-0,5	-11,0	2,7
Austria	2,5	2,4	1,6	-7,0	4,5	0,0	-8,7	3,0
Montenegro	4,7	5,1	3,6	-9,0	6,5	0,6	-11,5	3,6

Source: World Economic Outlook, IMF, April 2020, calculation by CBBH

Compared to the projections from October 2019, there is a clear decline in projections in all observed countries for 2020, but also a recovery in 2021, which in developed countries will not be enough to return economic activity to the level of 2019.

In the USA, in 2019, economic activity grew by 2.3%, which is the slowest growth of US economic activity in the last three years. Increased government spending, and low borrowing costs with record low unemployment over the past two decades, have managed to mitigate the negative effects of trade tensions with China and the EU. The sharp decline in corporate investment, along with reduced production, and a reduction in personal consumption, which is the main driver of growth in the US economy, have further slowed the US economy. Following the outbreak of the Coronavirus pandemic, the IMF forecast a decline in the US economic activity in 2020 of -5.9%, and only in the first quarter of 2020, the US industrial production fell by 5.4%, which is the largest decline since World War II.

In the second half of 2019, the uncertainty of trade policy, geopolitical tensions in the Middle East and the slowdown in economic activity in key emerging markets continued to burden global economic activity, especially production and trade. There was a further weakening of economic growth in the group of developing countries (India, Mexico and South Africa) due to weakening domestic demand and declining consumption.

In the last quarter of 2019, after raising the VAT rate by two percentage points to 10%, Japan recorded the largest decline in activity in the last five years, and at the end of the first quarter of 2020 officially entered a recession due to the negative financial effects of the Coronavirus pandemic, and the decline of all economic indicators (consumption, investment, exports). In 2019, India recorded the weakest growth since 2008 with a growth rate of 4.2%. In 2019, the United Kingdom managed to record a symbolic economic growth compared to the previous year, despite the slowdown in economic activity in the second half of the year. The absence of economic growth in the last quarter of 2019, accompanied by prolonged uncertainty about BREXIT and increased investor distrust and reduced consumption with the lowest level of car production in the last decade, were the announcements of a deep recession in the British economy, which was officially confirmed in mid-May 2020.

The significant decline in economic activity in the group of European developing countries and emerging markets in 2019 was dominated by the negative economic conditions in Turkey and Russia. The unfavourable economic conditions in Turkey from 2018 continued in 2019, as well. The depreciation of the lira, which boosted inflation along with rising unemployment, further slowed the Turkish economy, which at the end of 2019 achieved modest growth of 0.9%. At the beginning of 2020, the Government's fiscal stimulus and the program of economic structural reforms with the stabilization of the exchange rate, and the reduction of interest rates and inflation achieved great economic momentum, and at the end of the first quarter of 2020, Turkey recorded economic growth around 4.5%[1]. Russia recorded the economic growth of 1.3% in 2019, which significantly slowed down the growth trend in the last three years. The national projects that were announced in 2018 and launched a year later did not give the expected effect because by the end of June 2019, less than a third of the planned funds for investments were used up, which significantly reduced consumption.

In 2019, the leading central banks pursued an expansive monetary policy. Through measures of expansionary monetary policy, the leading central banks sought to mitigate poor macroeconomic indicators, primarily low inflation rates, which were far below the target level throughout the year. Despite the announcements of the Fed from the first half of 2019 that it will not lower the reference interest rates, by the end of the year there were three reductions in the reference interest rate, each time by 25 bp. The ECB did not change interest rates on the main refinancing operations and the overnight borrowing rate, but in September 2019 it reduced the deposit rate by 10 bp to -0.50%, and announced a new wave of quantitative easing and repurchase of securities of euro area countries in the amount of 20 billion, which began in November 2019. In March 2020, the Fed significantly lowered interest rates twice more (the first time by 50 bp, the second time by 100 bp), while the ECB's decision to keep the reference interest rate on deposits unchanged (-0.5%) was contrary to market expectations. The interest rate on the main refinancing operations was also maintained (0%), as well as the interest rate on overnight loans (0.25%). At the same time, the ECB announced measures to support bank lending and expanded its bond repurchase program by 120 billion euros.

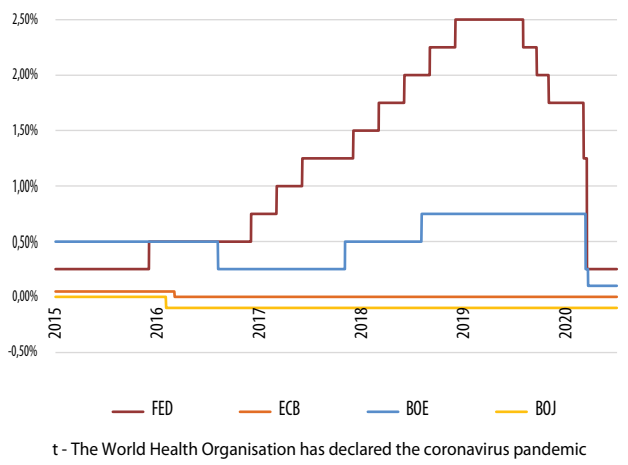
From October 1, 2019, the ECB started calculating the new euro short-term rate €STR (euro short-term rate), which is planned to completely replace the current EONIA from 2022[2].

[1] Source: Statistics Institute of Republic of Turkey, www.turkstat.gov.tr

[2] The aim of € STR is to faithfully maintain the price of overnight borrowing on the European financial market.
€STR is published every morning, unlike EONIA, which was published the night before and the data from twice as many European banks are used in the calculation. Following the introduction of the €STR rate, the EONIA rate continued to count as €STR increased by 8.5 basis points.

The Bank of England did not change the reference interest rate in 2019, while the interest rate was reduced in 2020, and its further reduction is being considered. The Bank of Japan continued to pursue accommodative monetary policy, and the reference interest rate was maintained at the level of 2016 and amounts to -0.1%.

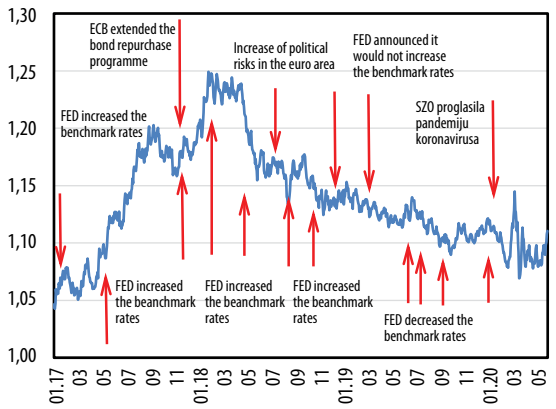
Graph 1.1: Trends of Benchmark Rates of Leading Central Banks



Source: FED, ECB, BOE, BOJ
Note: The graph shows the upper border of the FED benchmark rate spread

In 2019 and early 2020, the trend of strengthening the dollar and depreciation of the euro continued. At the end of 2019, the exchange rate was 1.121 EUR / USD, which represents a depreciation of the euro of 2.2% compared to the beginning of the year. The depreciation of the euro was also recorded against the Japanese yen and the Swiss franc. In early March 2020, the euro, the British pound and the Japanese yen strengthened sharply against the US dollar as a result of a sharp drop in world oil prices, due to the Coronavirus pandemic.

Graph 1.2: Trend of USD to EUR Exchange Rate

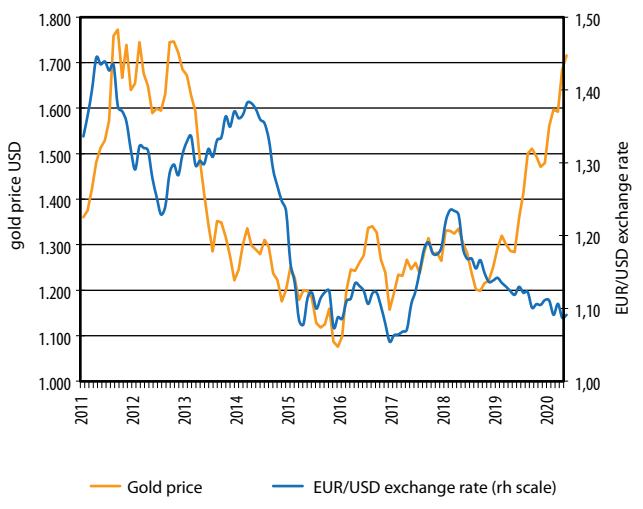


Source: Bloomberg

According to the ECB, the euro accounted for 20.5% of world foreign exchange reserves at the end of 2019, while its share in maturing international debt securities fell to 22.1%. Like the euro, the dollar has lost market share in the last decade, but despite that, these currencies still account for over 80% of the world's foreign exchange reserves. In June 2020, the share of the US dollar, the world's leading reserve currency, further fell to its lowest level in the last two decades, indicating that the trend of gradual diversification of the world's foreign exchange reserves portfolio continues.

The price of gold rose in 2019 due to increased demand for safe types of investment. The average price of gold in 2019 reached the value of 1,393 USD per ounce, which is the highest average annual price of gold in the last five years and compared to last year's average price is higher by 9.7%. The upward trend in gold prices continued in 2020, further stimulated by the increased risk of a Coronavirus pandemic, thus, in May 2020 it reached a value of 1,716 USD per ounce, which is the highest value achieved since 2011.

Graph 1.3: Gold Price and EUR/USD Exchange Rate

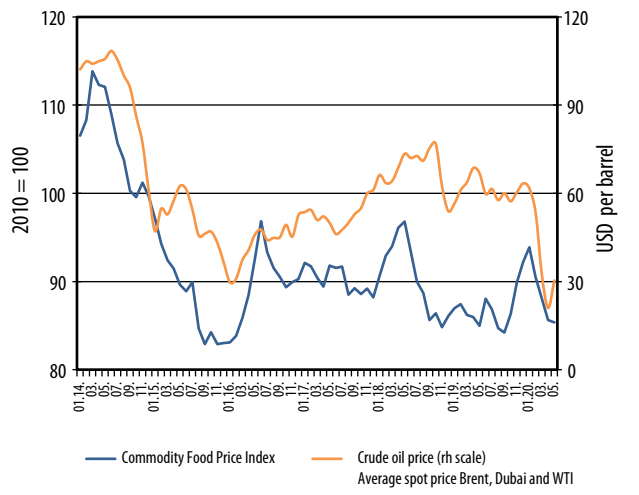


Source: World Bank, Bloomberg

The slowdown in global inflation, which began at the end of 2018, continued in 2019, despite very expansive monetary and macroeconomic policy measures. Due to a significant drop in demand in 2019, inflation was still low globally; lower than in the previous year. Falling prices of oil and other energy sources, as well as food and other foodstuffs have contributed to lower inflation. The average price of crude oil in 2019 was USD 61.41 per barrel, which is a decrease of 10% compared to last year's average price. In the first quarter of 2019, due to increased demand and imposed sanctions on oil exports to Iran and Venezuela, the price of oil rose and in April reached the highest average monthly value in 2019, at a price of USD 68.58 per barrel. By the end of the year, oil prices were extremely volatile due to heightened tensions in the Middle East, and the continuation of the trade war between the United States and China, so that due to declining demand, oil prices fell by about 8%. In early 2020, the most significant drop in oil prices since the beginning of 2016 was recorded as a result of reduced demand due to uncontrolled global spread of Coronavirus and the declaration of a pandemic, as well as failure to reach agreement between major oil producers Russia and Saudi Arabia to reduce production and limit supply. In the second half of April, due to lack of storage capacity and stockpiling, and due to expiration of futures contracts and lack of interest in concluding new ones, WTI (West Texas Intermediate) Brent oil for May delivery onto the US market lost almost 300% of its value during one trading day and recorded a negative value for the first time in history of -37.63 dollars per barrel. By the end of April, there was a gradual stabilization and recovery of the oil price, so that the average price of crude oil (Brent, Dubai, WTI) in April was 21 USD per barrel, which is the lowest price in the last three decades. OPEC managed to reach an agreement with partners, including Russia (a group known as OPEC +) to reduce production, which halted the growth of stocks and a further decline in oil prices.

Although food prices fell during the year, at the end of 2019 there was a significant increase in food prices due to increased demand so that the food price index increased by 6% compared to the beginning of the year.

Graph 1.4: Food and Oil Prices



Source: World Bank

1.2. Main risks in the EU and euro area

The main risks in the EU in 2019 are geopolitical challenges due to the continuation of the trade war, the consequences of BREXIT, and the high level of public debt in the euro area. In late 2019 and early 2020, economic and social risks, due to the Coronavirus pandemic, intensified. These risks will certainly have a significant impact on all sectors of the European economy and the global economy, with a certain global recession in 2020. The key risks to the financial stability of the euro area's banking sector are: increased market risk, due to volatility in bond yields in countries with high public debt; poorer bank profitability; easing the conditions for approving loans; low interest rates and increased operational risks related to data security (so-called cyber crime).

1.2.1. Effects on banking sector

The banking sector of the euro area successfully absorbed risks from the macroeconomic environment in 2019. Activities to strengthen the regulatory framework for bank operations undertaken in previous years have resulted in maintaining the stability of key financial health indicators. Euro area banks were adequately capitalized, and the rate of regular core capital (CET1) at the level of euro area banks was 14.2%, while the capital adequacy ratio (Total Capital Ratio) was 18.43%.[3] The improvement of the quality of banks' assets continued in 2019 as well. The level of non-performing loans continued to decrease due to the implementation of a comprehensive European strategy for solving the problem of non-performing loans, and the share of non-performing loans in total loans at the end of the fourth quarter of 2019 was only 3.3%. However, in some countries (Greece 36.4%, Cyprus 17.1%) the level of this indicator is still very high. Weak profitability remains one of the main challenges for euro area banks, with growing operational risks putting additional pressure on profitability. The total return on equity (ROE) of euro area system banks at the end of 2019 was 5.8% and decreased compared to the previous year when it was 6.8%.

The outbreak of the Coronavirus pandemic is expected to increase credit risk in EU and euro area banks, despite a series of temporary measures taken by regulators to mitigate the effects of the Coronavirus pandemic. Banks are increasingly facing declining profitability, difficult payments and an increasing number of clients who are unable to meet their obligations on time, especially banks that have high exposure to sectors of the economy that did not operate at the time of the pandemic or companies that will remain closed.

Text box 1: The ECB measures related to the monetary policy and the banks supervision as the reaction on Coronavirus pandemic

Following the declaration of a Coronavirus pandemic in mid-March 2020, the Governing Council of the European Central Bank (ECB) adopted a comprehensive package of measures to support the euro area financial system, in order that the financial system could provide the necessary financial support to all sectors affected by the pandemic.

The conditions for Targeted longer-term refinancing operations of the third series (TLTRO III) are much more favourable and aim to help banks lend to the sectors being most affected by the spread of the Coronavirus, especially small and medium-sized enterprises. During the one-year duration of the TLTRO III operations (June 2020 to June 2021), the average interest rate was initially projected to be 25bp lower than the average rate applied by the Euro system in its main refinancing operations. Following a meeting in April 2020, the ECB further relaxed these conditions and prescribed that the interest rate would be 50bp lower than the average interest rate on major refinancing operations. The total amount of allowed loans of the contracting parties under TLTRO III operations has increased by 50% of the value of their eligible loans since the end of February 2019, thus increasing the total amount of borrowing under this program almost three times, from more than EUR 1 trillion to approx. EUR 3 trillion.

The Governing Council of the ECB has decided to increase the amount for the purchase of securities by an additional EUR 120 billion by the end of 2020, thus ensuring a big contribution from the private sector securities purchase program. It is expected that the net purchase of securities will be carried out for as long as is necessary to strengthen the accommodative impact of the ECB's interest rates, and that it will cease immediately after the conditions are created for an increase in key interest rates.

As part of the adopted package of measures, the Pandemic Emergency Purchase Program (PEPP) was launched, a temporary program for the purchase of private and public sector securities, in order to combat serious risks to monetary policy transmission mechanisms and to prevent credit fragmentation of markets due to the growing uncontrolled spread of Coronavirus infection. PEPP is a non-standard monetary policy measure that aims to help the economy absorb the shock of the current crisis by reducing borrowing costs and increasing lending in the euro area. The purpose of PEPP securities purchase is to help increase consumption and investment to support economic growth, and should help the corporate, retail and government sectors by making it easier for them to access the funds they may need to overcome the crisis. The amount of 750 billion euros was initially approved for the implementation of this Program, but in early June 2020, due to an additional reduction in inflation, it was increased by an additional 600 billion euros and currently amounts to a total of 1.350 billion euros. PEPP covers all eligible asset categories under the existing Asset Purchase Program (APP), as well as non-financial commercial securities from the CSPP Corporate Sector Purchase Program.

The new bond-buying program also includes Greek securities,

[3] Total minimal capital adequacy ratio amounts to 12.5 % of total risk exposure, according to the regulatory requirements of Basel III.

which has not been the case so far, due to undermined investor confidence in Greek securities following the sovereign debt crisis.

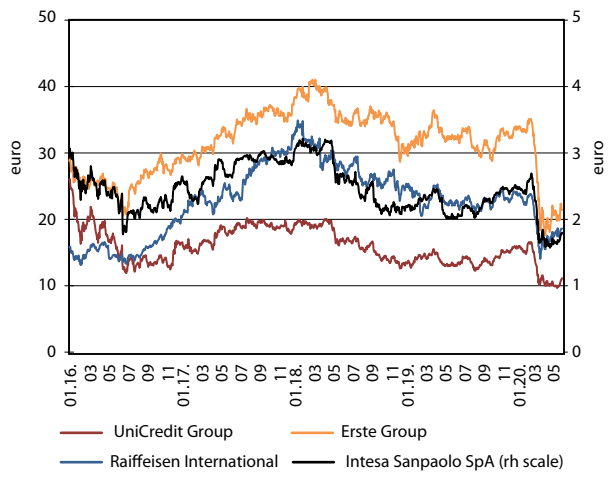
The Governing Council of the ECB has announced that it will continue to fully reinvest the capital of maturing securities for as long as is necessary to maintain favourable current liquidity conditions and a high degree of monetary policy flexibility. The interest rate on the main refinancing operations (0.00%), the interest rate on the permanently available marginal lending facility from the central bank (0.25%) and the interest rate on deposits with the central bank (-0.50%) remained unchanged, with the ECB expectations that it will remain at the same or lower levels, until a strong movement of inflation towards the target level of 2% is recorded.

This Package of ECB monetary policy measures amounts to around 7.3% of euro area GDP, and together with a number of fiscal stimulus, approved by national governments and European institutions, represents a common response to the many shocks, caused by the pandemic and aims to keep the financial sector liquid, and to ensure acceptable financing conditions for all sectors of the economy during the pandemic.

With regard to supervisory measures, the ECB has prescribed more lenient collateral criteria relating to the extended coverage of eligible assets and criteria for determining the value of collateral (correction factor) that banks can use, allowing banks to increase lending money to the corporate and retail sectors. In addition, the criteria for maintaining protective layers of capital and liquidity buffers, which banks can use entirely to finance lending activities, have been relaxed. Banks are also allowed to partially use Additional Tier 1 and Tier 2 instruments to maintain regular core capital (CET 1). In addition to the a.m. easing in the regulations, with the aim of creating additional protective layers of capital, banks in the euro area will not be allowed to pay out the dividends or repurchase shares during the interim measures being on.

A significant drop in eurozone banks' shares prices to 2012 level (European debt crisis), negative reference interest rates, falling yields on eurozone countries' bonds, heightened capital requirements and expectations of a recession have significantly reduced the market value of European banks. When it comes to banking groups operating in BH, their shares' prices were generally falling throughout the year until the last quarter, when they recorded a slight increase that continues in early 2020. The largest increase in share prices at the end of 2019 compared to the previous year had UniCredit S.p.A of 33%, followed by Intesa Sanpaolo S.p.A of 23%, while Raiffeisen Bank International AG, at the end of 2019 compared to 2018, recorded almost identical value. At the end of the first quarter of 2020, there is a significant decline in the value of shares of banking groups operating in BH, due to the declaration of a Coronavirus pandemic.

Graph 1.5: Trend of Local Banks' Mother Banks' Stock Prices



Source: Bloomberg

Credit ratings of the leading banking groups operating in BH remained unchanged in 2019. In March 2020, the S&P agency raised the long-term rating of Raiffeisen Bank International AG from "BBB +" to "A-" with a stable outlook due to stable performance, solid growth and improvement of risk indicators. However, due to the increased risk, caused by the Coronavirus pandemic, the S&P agency reduced the outlook of Erste Group from positive to stable, at the end of April 2020, and of Raiffeisen Bank International AG, UniCredit S.p.A. and Intesa Sanpaolo S.p.A. from stable to negative outlook.

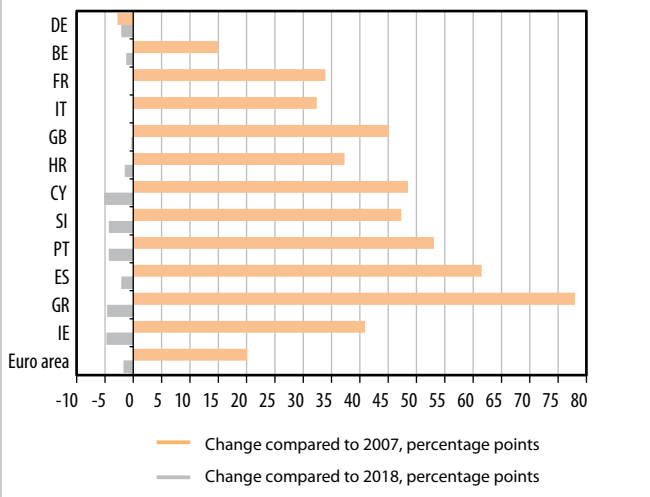
In May 2019, the S&P agency upgraded Nova Ljubljanska banka's long-term credit rating from BB + to BBB- with a stable outlook, with the bank moving from a speculative to an investment level, due to reduced risk in the banking sector and stronger banking supervision and reduced state ownership in banks. A year later, due to the expected consequences of the Coronavirus pandemic, S&P lowered the outlook of Nova Ljubljanska banka from a stable outlook to a negative one.

1.2.2. Effects on the real sector

In 2019, the economic growth of the euro area countries slowed down. The growth of domestic demand was the main contributor to economic growth in 2019 due to the continued trend of improving labour market conditions (moderate wage growth, reduction of the unemployment rate with employment growth), and the growth of investment consumption of non-financial corporations. However, the weaker economic recovery was influenced by the slowdown in foreign trade of the eurozone countries, which began in the second half of 2018.

In 2019, the trend of reducing the budget deficit continued, as well as, the trend of reducing the public debt of the euro area countries, except in the case of France and Italy, where the growth of public debt was recorded. Despite the gradual reduction, the eurozone's public debt remains high and there are concerns about the sustainability of some eurozone public debt (Greece, Italy, Portugal, Belgium, France, Spain and Cyprus), and difficulties in reaching consensus on long-term adoption of EU budget are evident. The risk of contagion spillovers, through the interbank exposure channels in the euro area, has been further increased, caused by the high exposure of Italian banks to the domestic government sector. In 2020, due to the negative effects of the Coronavirus and increased fiscal expenditures and uncertain revenues, most countries are expected to increase fiscal deficits at the end of the year. The EU expects to meet the end of 2020 with an average budget deficit of 8.5%, which is a significant increase compared to 0.6% recorded in 2019. Also, the public debt of most countries is expected to increase, so it is estimated that the share of public debt in GDP will increase from 79.5% in 2019 to as much as 95% by the end of 2020.

Graph 1.6: Public Debt Changes as a Per Cent of GDP in 2019

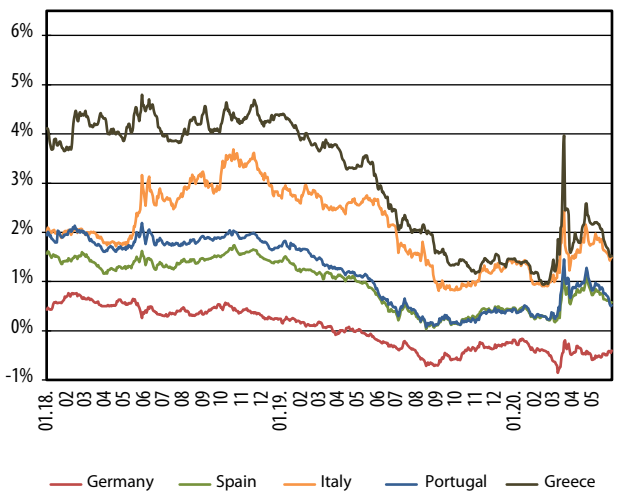


Source: Eurostat, calculation by CBBH

In the first three quarters of 2019, there was a synchronized decline in yields on ten-year government bonds of the observed countries, and a decrease in the spread between countries on the periphery of the euro area in relation to yields on German government bonds (Graph 1.7). The decline in government bond yields was caused by the investors' expectations that, because of the escalation of trade conflicts and the slowdown in economic activity, as well as lower inflation, there would be an easing in the implementation of monetary policies of leading central banks.

Yields on German 10-year government bonds fell to a negative value at the end of the first quarter, before falling to -0.2% at the end of the year, while yields on government bonds in Italy and Greece and Spain and Portugal almost equalized. The spread between the yields on ten-year Italian bonds in relation to ten-year German bonds was reduced from 250 bp at the beginning of 2019 to 160 bp at the beginning of 2020. After a gradual stabilization of yield trends in late 2019 and early 2020, growing risks due to the spread of the Coronavirus pandemic and increased uncertainty and fear of a global recession have led to short-term sharp yield growth and new market volatility. In the middle of the second quarter of 2020, as a result of a number of stimulus measures taken, yields in the markets stabilized. It is certain that yields on 10-year bonds would have continued to rise if these measures had not been taken.

Graph 1.7: Yield of Ten Year Government Bonds



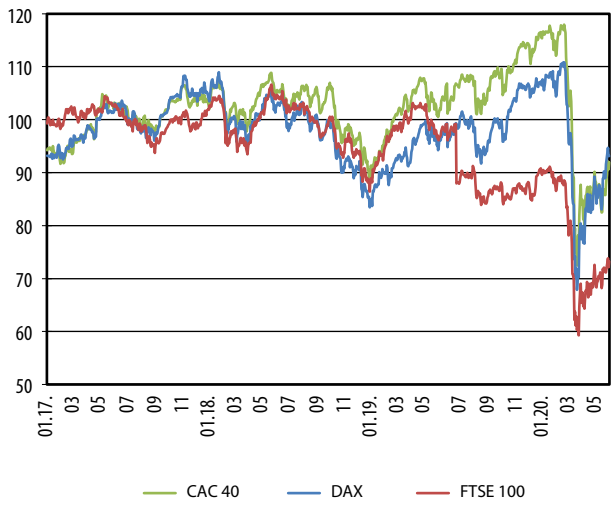
Source: Bloomberg

At the end of 2019, the rating agency S&P raised the credit rating of Spain and Ireland due to the reduction of the budget deficit and budget consolidation. S&P reaffirmed these ratings in the first half of 2020, as well as, the ratings of Portugal and Cyprus, with Portugal's outlook being reduced to stable. On April 28, 2020, Fitch downgraded Italy's long-term credit rating to (BBB-) from (BBB) and short-term rating to (F3) from (F2). According to estimates, Italy's public debt will increase to over 150% of GDP by the end of 2020, while the budget deficit will increase to 6.3%.

After a significant drop in value in 2018, the main market indices in 2019 achieved significant growth. Although the projections were different and a lot of turbulence was expected, the leading stock market indices recorded significant growth in 2019, the largest in the last ten years. The 2019 largest increase in value, amounting to 27% was achieved by the French CAC 40. The main index of the German stock exchange DAX in 2019 grew by 25.5% compared to the previous year. This is mostly due to some German companies (MTU, Adidas, German Post, RWE), whose shares are part of the DAX, and which in 2019 operated successfully, despite the slowdown in the German economy and reduced demand and production. The British FTSE 100 ended the 2019 with a modest growth of 1% compared to the same period last year due to the continuing uncertainty about resolving the issue of BREXIT and the disturbed investor confidence.

In the first quarter of 2020, after the proclamation of the Coronavirus pandemic by the WHO, the financial markets experienced a shock, thus the growth trend of the observed indices abruptly stopped, with indices falling abruptly and sharply losing over 35% of their value compared to the beginning of the year.

Graph 1.8: Trend of the Main Market Indices



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

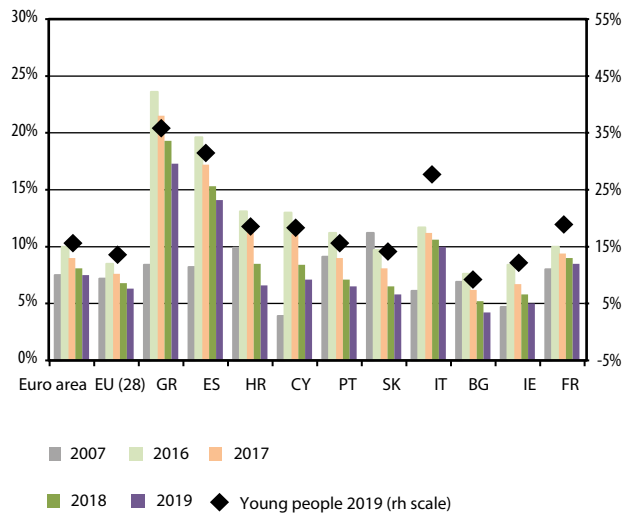
EU and eurozone labour market conditions continued to improve in 2019, reflected in moderate wage growth and declining unemployment rates. Unemployment rates in developed countries and countries with emerging markets continued to decline, falling to their lowest levels since the crisis in many countries. Labour shortages have become noticeable in several developed countries, especially when it comes to specialized and highly skilled workers.

The unemployment rate in the euro area countries was 7.5% at the end of 2019, and decreased by 0.6 pp compared to the previous year. In the EU, the unemployment rate fell from 6.8% to 6.3% in 2019, although some countries, despite the decline, still record high, above-average unemployment rates (Greece 17.3%; Spain 14.1%; Italy 10 %). Among other things, the youth unemployment rate in these countries is still extremely high (Greece 35.2%; Spain 32.5%; Italy 29.2%).

Although positive labour market trends were recorded in 2019, in early 2020, the appearance of the Coronavirus, and its uncontrolled spread led to "Great isolation", to a significant decline in production, the suspension of certain activities, and

a reduction in consumption, resulting in a sharp increase of the employed number (in April, the number of unemployed in the EU increased by 397 thousand and in the euro area by 211 thousand compared to March 2020). Thus, the unemployment rate is projected to increase to 9% in the EU and the euro area. Despite the numerous fiscal measures, taken with the aim of preserving every job and reducing the number of unemployed, current trends indicate that the labour market has been most affected by this crisis, with an increased risk of further growth in the unemployment rate.

Graph 1.9: The EU Unemployment Rate



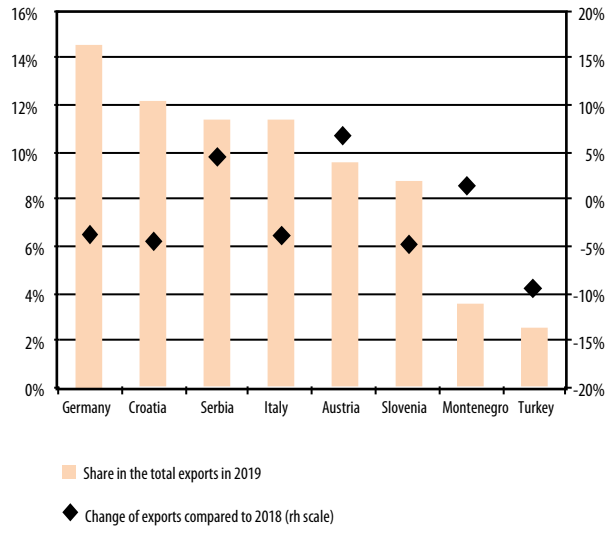
Source: Eurostat

Significant weakening of economic activity was also recorded in the countries - BH main foreign trade partners. Economic trends at the global market, on 2019, were also reflected on the economic trends of the BH main foreign trade partners, all of which, except Croatia, recorded weaker economic growth compared to the same period last year. In Germany, being the most important foreign trade partner of BH and the largest European economy, a significant decline in industrial production and reduced exports led to an additional slowdown in economic growth, pushing the German economy to the brink of recession. After recording in 2018 the highest economic growth in the last ten years of 4.4%, Serbia, on 2019, recorded a slowdown of economic activity and economic growth of 4.2%. On 2019, Slovenia, due to reduced demand in the main export markets, recorded a significant weakening of economic activity of 2.4% compared to economic activity realized a year earlier in the amount of 4.1%. After officially entering the recession, at the end of 2018, and the continuation of unfavourable economic trends, Italy met the end of 2019 with an annual growth of 0.3%. Unlike other foreign trade partners of BH, Croatia, due to the increase in private consumption and exports and the reduction of public debt and implemented fiscal reforms, recorded economic growth of 2.9%

In 2019, BH exports amounted to KM 11.5 billion, which is 3.4% less than in the previous year, while imports amounted to KM 19.5 billion or 1.2% more than in the same period last year. The foreign trade deficit increased compared to 2018 and amounts to KM 8 billion, thus, the coverage of imports by exports decreased compared to the previous year, and in 2019 amounted to 58.9%. Exports to EU countries amounted to KM 8.39 billion, which is 3.4% less than in 2018, while imports amounted to KM 12.08 billion, which is 3.6% more than in the same period last year. The coverage of imports by exports with EU countries at the end of 2019 was also reduced and amounted to 69.44%. The largest share in exports from BH is still held by the main foreign trade partners: Germany, Croatia, Serbia, Italy, Austria, Slovenia, Montenegro and Turkey, which account for 73.8% of total BH exports.

Having in mind the macroeconomic trends in the EU and in the main BH trade partners, it is certain that the negative effects of the pandemic will spill over through the foreign trade channels and significantly affect the decline in economic activity in BH.

Graph 1.10: BH Exports to Main Trade Partner Countries



Source: BHAS, calculation by CBBH

2. Macroeconomic Trends in BH

In 2019, the risks from the domestic macroeconomic environment weakened slightly. The reduction of the country's external vulnerabilities, the reduction of the total external debt expressed as a ratio to GDP, as well as the positive moves forward recorded in the labour and real estate markets had a favourable effect on financial stability. On the other hand, the growth of real economic activity was weaker than in the previous year, and high structural vulnerabilities of the BH economy are still present in the form of high unemployment rate and low purchasing power of the population. Due to the outbreak of the Coronavirus pandemic, a strong contraction of the economic activity is expected in 2020, while a number of adverse effects on the economic activity can also be expected in the long run, as well as an increase in risks in all segments of the domestic economy.

In 2019, the growth of the economy in BH was weaker than in the previous year. According to the first available data of the Agency for Statistics of BiH, the real GDP growth rate is 2.6% and the economic growth that was achieved is lower by 1.1 percentage point compared to the previous year[4]. The largest contribution to real GDP growth was made by *Wholesale and Retail trade* and *Financial and Insurance activities,* and compared to 2018, the share of these two activities in generating gross value added almost doubled. On the other hand, the strong decline in the volume of industrial production recorded in 2019 (5.5% on an annual basis) had an effect on the real decline in gross value added in *Manufacturing and Mining and quarrying activities*. In addition to the two mentioned activities, a decrease in gross value added was also recorded in the activities *Arts, entertainment and recreation* and *Construction*. Looking at GDP according to the expenditure approach, the slowdown in activity of almost all components of real GDP was evident as of the third quarter of 2019, while external demand had a negative effect on economic activity in 2019.

The outbreak of the crisis caused by the Coronavirus pandemic led to a halt in both global and domestic economic activity in the first half of 2020. In the conditions of a pronounced macroeconomic shock, a strong contraction of economic activity in BH is expected in 2020, mostly through the continuation of the decline in personal consumption and a further reduction in exports. According to the IMF projections from April 2020, the rate of economic growth in BH in 2020 will amount to -5.0%, while in 2021 the real growth of economic activity is expected to amount to 3.5%. Although it is assumed that the contraction of economic activity will be short-lived, due to still hard-to-discern consequences of the corona crisis on all sectors of the domestic economy, a number of adverse effects on economic activity can be expected in the long run, and consequently on the financial stability.

External vulnerabilities arising from the country's balance of payments position were mitigated in 2019 due to a slight reduction in the current account deficit expressed as a percentage of GDP. The deficit on the balance of payments current account at the end of 2019 amounted to KM 1.24 billion (3.53% of GDP), and compared to the previous year, a slight decrease in the deficit was recorded. As in previous years, the current account deficit was primarily determined by a negative balance on the commodity account (KM 7.97 billion), and a decrease in external demand which was recorded in 2019 had a further effect on the deepening of the commodity deficit. At the same time, in the international exchange of services during 2019 a surplus was recorded in the amount of KM 2.63 billion, which, together with a surplus achieved on the secondary income account in the amount of KM 4.16 billion, led to the mitigation of the current account deficit. Thanks to an increase in net inflows on the secondary income account, and an increase in exports of services during 2019, the current account deficit is somewhat lower than in the previous year (0.25%).

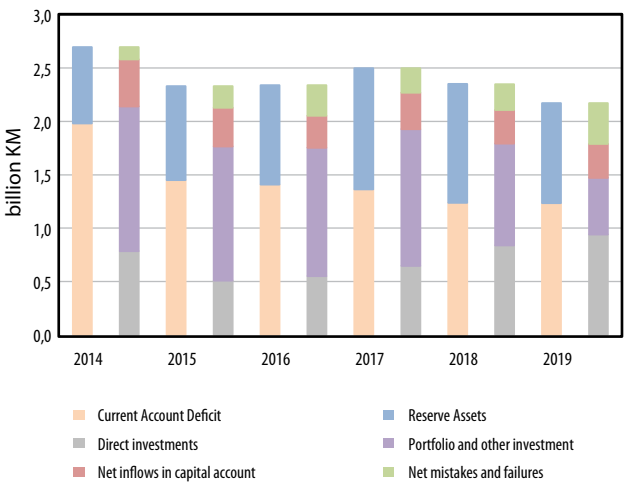
From the point of view of financial stability, the way of financing the current account deficit is particularly important. As in previous years, the current account deficit was largely financed by new borrowings within other investments and by inflows on the basis of foreign direct investments, while reserve assets did not participate in covering the current account deficit (Graph 2.1)[5]. Nevertheless, the structure of financing the current account deficit in 2019 was somewhat more favourable compared to previous periods. Within the financial account, inflows on the basis of direct foreign investments amounted to KM 898.6 million and were higher by KM 93.6 million or 11.6% compared to the previous year. At the same time, inflows from other investments, which for a number of years constitute a dominant source of the financing of the current account deficit amounted to KM 1.02 billion in 2019 and were lower by KM 359.1 million or 26% compared to the previous year. The largest decrease in inflows within other investments was recorded on the basis of the banking sector borrowing, from which it is evident that banks finance most of their lending activities from domestic sources (see Chapter 6). Given that other investments

[4] Source: Agency for Statistics of BiH, Gross Domestic Product - Production Approach, April 1, 2020

[5] The left column of the graph shows for each year reserve assets and the current account deficit, which represent cash flows abroad. The right column shows inflows from abroad to BH, i.e. foreign direct investments, portfolio and other investments that represent net foreign borrowing, as well as net inflows in the capital account and net errors and omissions.

do not represent such a stable category of financing and that they can be withdrawn from the system relatively easily, the increase in foreign direct investments certainly mitigates the risk of financing the current account deficit.

Graph 2.1: Current Account Deficit Financing



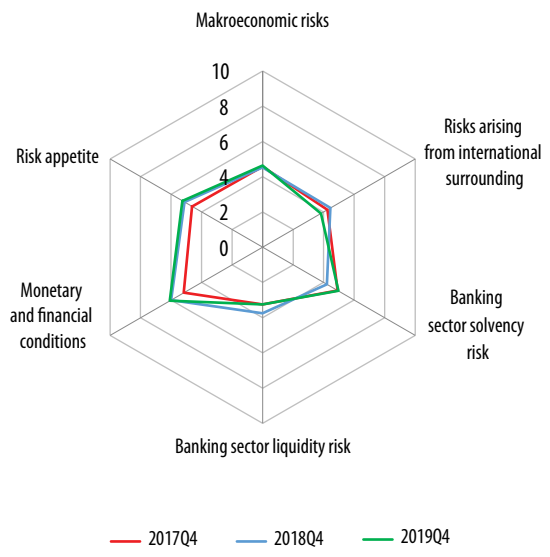
Source: CBBH

In the newly arisen circumstances of the strong macroeconomic shock caused by the Coronavirus pandemic in 2020, increased pressures on the current account deficit financing can be expected. Due to a significant reduction in exports and imports, it is very likely that there will be a reduction in the trade deficit in 2020, which on the one hand will alleviate the current account deficit, but at the same time a reduction in inflows on the secondary income account is certain, primarily through reductions in remittances from abroad, which will have a negative effect on the current account deficit. Ultimately, a decrease in inflows on the basis of foreign direct investments can be expected, which is why the current account deficit will have to be closed from new borrowings abroad. Based on already agreed arrangements and new foreign borrowings by governments, an increase in public debt is expected in 2020, which together with a potential increase in the current account deficit would result in an increase in the country's risks and external vulnerabilities.

Text box 2: Assessment of major macrofinancial risks to financial stability

The assessment of major macrofinancial risks that may arise in the real, fiscal, external or financial sectors, or as a result of their interconnection, as well as the assessment of monetary and financial conditions and risk appetite was done on the basis of a quantitative tool (Dashboard), and published for the first time in the 2017 Financial Stability Report. The risk assessment is based on simplified standardization and ranking of positions of a comprehensive set of indicators that represent a basis for the quantification of synthetic assessment of the degree of risks from different segments of the system. A score ranging from 1 - 5 represents an extremely low to mildly moderate degree of risk exposure; a score ranging from 5 – 8 stands for a moderate to mildly high degree of risk exposure; a score in the range of 8 - 10 represents a high degree of risk exposure. The ranking of scores for monetary and financial conditions and risk appetite is moving in the opposite direction, i.e. an increase in the distance from the centre of the Graph represents an improvement in monetary and financial conditions, i.e. an increase in investors' risk appetite.

Graph TO 2.1: Macrofinancial Risks Chart



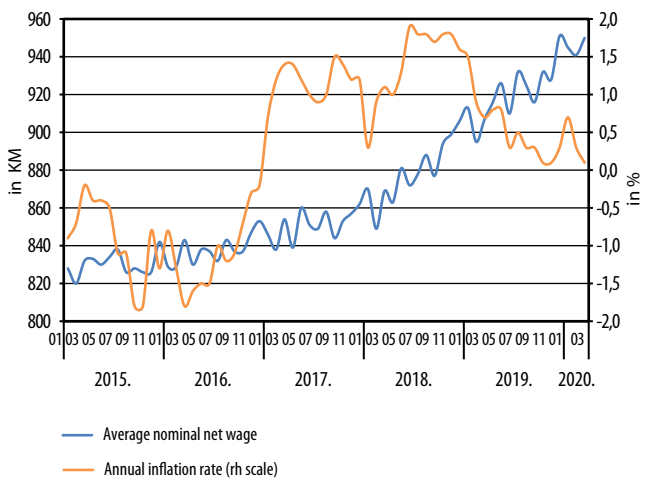
Source: CBBH, calculation by CBBH

Exposure to macroeconomic risks increased slightly compared to the previous year, which was mainly due to weaker growth in real economic activity in 2019, and a significant reduction in real GDP growth rate projections for the next two years due to the Coronavirus pandemic outbreak. The real growth in economic activity in BH was weaker than in the previous year, and was still largely generated by private consumption of the population, with a slight increase in the share of gross investment in GDP, which was recorded in 2019. On the other hand, within the indicators used to assess macroeconomic risks a slight decrease in the share of the current account deficit in relation to GDP was recorded as well as a decrease in total external debt in relation to GDP, and a lower unemployment rate, which had a favourable effect on the financial stability in 2019. However, despite slight positive developments in the labour market, still present structural vulnerabilities in the form of inflexible labour market, high

unemployment rate, and unfavourable demographic trends in the population, did not allow for significant mitigation of risks from the domestic macroeconomic environment. Exposure to risks from the international environment decreased compared to the previous year, primarily due to a decrease in the net exposure of the banking sector to non-residents. In 2019, the banking sector foreign assets continued to grow significantly faster compared to the growth of foreign liabilities, which is why net foreign assets in the course of 2019 recorded the highest value since mid-2016, when banks in BH first became net lenders to non-residents. In addition, the exposure to risks from the international environment decreased as a result of the growth in the level of foreign exchange reserves, i.e. the increase in the number of months of imports covered by foreign exchange reserves, which indicates at an increase in the ability of the BH economy to absorb shocks from the international environment. The solvency risk of the banking sector increased primarily due to the significant credit growth in the household and non-financial corporate sectors, given that in 2019 the indebtedness growth dynamics increased in both sectors. Vulnerabilities in banks' balances were also reduced in this year, as shown by the improvement in all financial health indicators. The banking sector's exposure to liquidity risk remained low, as the trend of liquid assets growth continued in 2019 as well. The lower real interest rate, money supply growth and growth in loans to the private sector contributed to the improvement of monetary and financial conditions. Investors' perceptions of investment risks decreased slightly, which led to their somewhat greater propensity to accept risks.

In 2019, there was a continuation of the positive trends in the labour market, which were reflected in the lower unemployment rate and growth in average wages, but due to the high rate of structural unemployment and low disposable income, the situation on the labour market was still unfavourable. The average nominal net wage in 2019 amounted to KM 921 and increased by 4.8% compared to the previous year. The increase in the average nominal net wage in 2019 was recorded in all activities, and the highest growth in average monthly earnings was recorded in the activities *Arts, entertainment and recreation* (10.3%), *Real estate business* (9.2%) and *Construction* (7.7%). The growth of the average net wage and the increase in the indebtedness of the household sector in 2019, together with the weakening of inflationary pressures in the second part of the year, contributed to a slight increase in the disposable income of the population (Graph 2.2). However, this is still a slight growth in monthly earnings, which is insufficient to significantly improve the purchasing power of employed population.

Graph 2.2: Average Nominal Net Wage and Annual Inflation Rate



Source: BHAS, calculation by CBBH

According to data from the Labour Force Survey conducted in April 2019 in accordance with the methodology of the International Labour Organization (ILO), as well as according to the administrative data of the Employment Bureau, the unemployment in BH continued to decrease in 2019. According to the 2019 Labour Force Survey, the unemployment rate in BH was 15.7% and decreased by 2.7 percentage points compared to the previous year. According to the administrative data of the Employment Bureau, the unemployment rate in 2019 was lower by 2.1 percentage points. According to this data source, in 2019 the number of employed persons increased by 1.6%, while the number of unemployed persons decreased by 7.7% compared to 2018. The differences in administrative and survey data on employed and unemployed persons arise from differences in the methodology used to calculate and determine the status of unemployed persons, however, it can be noticed that the trends do not deviate from each other.

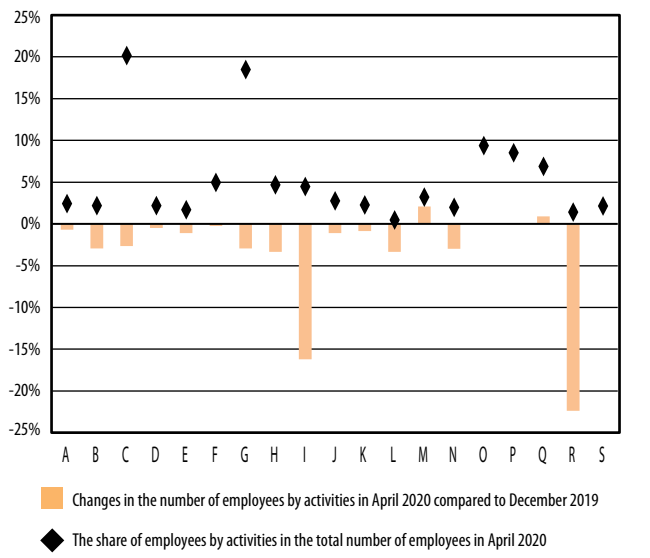
Administrative data on the number of employed persons by areas of economic activities show that most activities recorded employment growth in 2019. The exception was the activity *Education*, which recorded the largest relative decline in the number of employed (4.3%).

Despite the fact that positive trends were present in the labour market during 2019, the existing improvements are still insufficient to significantly reduce the vulnerabilities coming from the labour market. Given the long-term structural unemployment in BH and the expected increase in the number of unemployed persons in 2020 caused by the Coronavirus pandemic crisis, the labour market in BH will

certainly continue to be a source of long-term macroeconomic imbalances. According to the latest available data on the number of employed persons by activities from April 2020[6], there is an evident decline in the number of employed persons in almost all activities (Graph 2.3). The largest decline in the number of employed persons was recorded in the activities *Arts, Entertainment and Recreation* and *Accommodation* and *Food Service Activities*, which recorded the rate of decline in employed persons of 22.4% and 16.2%, respectively. The total number of employed persons in April 2020 compared to December 2019 decreased by 2.6%.

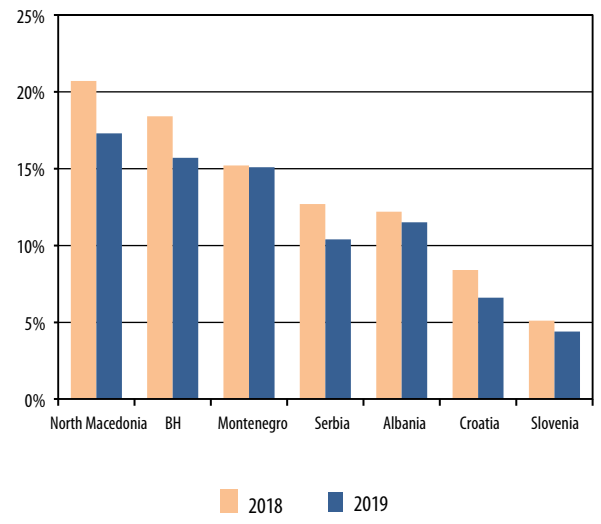
BH is still one of the countries with the highest unemployment rate in Europe, and comparing the data with countries in the region, BH recorded the highest unemployment rate along with Northern Macedonia (Graph 2.4). Given the great uncertainty and sharp decline of the global and domestic economy caused by the Coronavirus pandemic, unemployment is expected to rise and the disposable income of the population to decrease in BH, which is likely to lead to problems in repaying part of the private sector debt, so an increased level of credit risk in the banking sector can be expected in the coming years.

Graph 2.3: Changes in the Number of Employees by Activities



Source: BHAS, calculation by CBBH

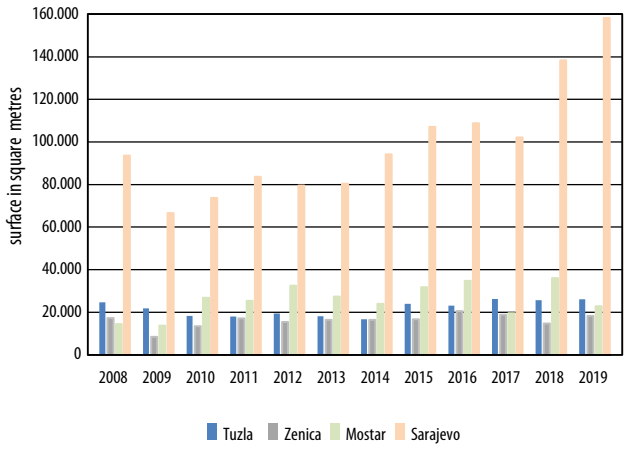
Graph 2.4: The Unemployment Rates in the Surrounding Countries



Source: ILO, BHAS
Note: BH Labour Survey, April 2019

Legenda:		
A	-	Agriculture, Forestry, Fishing
B	-	Mining and Quarrying
C	-	Manufacturing Industry
D	-	Electricity, Gas, Steam Production and Supply and Air Conditioning
E	-	Water Supply; Sewerage, Waste Management and Environment Remediation Activities
F	-	Construction
G	-	Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles
H	-	Transportation and Warehousing
I		Accommodation and Food Service Activities
J		Information and Communication
K		Financial and Insurance Activities
L		Real Estate Activities
M		Professional, Scientific and Technical Activities
N		Administrative and Support Service Activities
O		Public Administration and Defence
P		Health Care and Social Care Activities
Q		Health Care and Social Care Activities
R		Arts, Entertainment and Recreation
S		Other Service Activities

Graph 2.5: The Pre-Owned Residental Real Estate Trade Level



Source: CBBH

[6] Provisional data of the Agency for Statistics of BiH, published on June 22, 2020

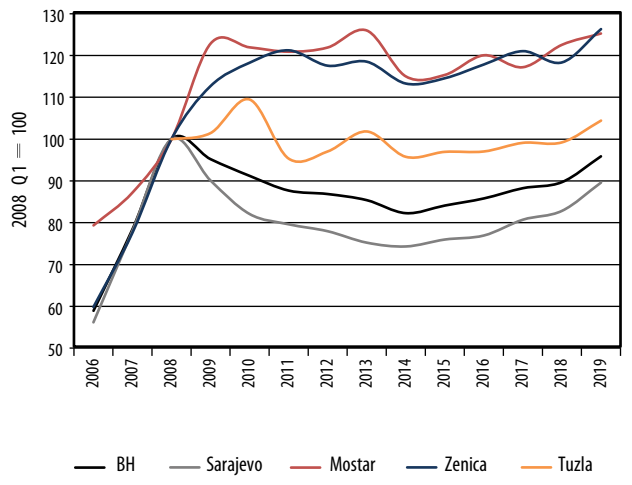
The residential real estate market continued to recover in 2019, which was visible through the increase in demand for dwelling units, increase in the volume and turnover of newly built dwelling units, rising prices of all types of residential real estate, and growth in credit activity focused on the real estate market.

In 2019, there was a higher volume of turnover of the old construction real estate compared to previous years. Compared to 2018, the volume of real estate turnover in terms of the old construction, measured by the surface area of the sold residential space, was higher by 5%. The volume of real estate purchase and sale is still the most significant in the capital of BH (Graph 2.5).

The volume of turnover of newly built apartments continued to grow at a much faster pace than in the previous year, and the highest turnover was recorded in the last quarter of 2019. The surface area of sold residential space of new construction increased by 20.1%, while the number of sold apartments increased by 23.4%, compared to 2018. The growth in sales of newly built residential real estate was partly driven by a higher supply on the market of newly built apartments[7] located in less attractive urban locations, thus being more affordable.

The average price per square meter of newly built dwelling units in 2019 was higher by 5.2% compared to the previous year, while the real estate price index in the old construction category also indicated at an increase of the real estate prices. According to the Real Estate Price Index for BH[8], the residential real estate prices increased in all cities included in the calculation of the real estate price index. Due to a significant increase in demand in 2019, the highest increase in prices of the old construction real estate was recorded in Zenica and Sarajevo. On the other hand, with a significantly lower volume of turnover compared to the previous year, much weaker price growth was recorded in Mostar compared to the previous year (Graph 2.6).

Graph 2.6: Real Estate Price Index, Annual Average Values, 2008 = 100



Source: CBBH

Trends in the real estate market were accompanied by the credit growth in the sectors focused on the real estate market. Interest rates continued to have a slight downward trend, which enabled favourable borrowing from banks. In 2019, housing loans recorded an increase of 11.7%, and their share in total retail loans amounted to 19.8%. The average weighted interest rate for housing loans in 2019 amounted to 3.65%, and thus recorded a decrease of 26 bp compared to 2018. In addition to the growth of housing loans, there was also an increase in general consumption loans, which are still used to some extent to finance the purchase of residential real estate.

Text box 3: The real estate market as an indicator of economic activity and risks to financial stability

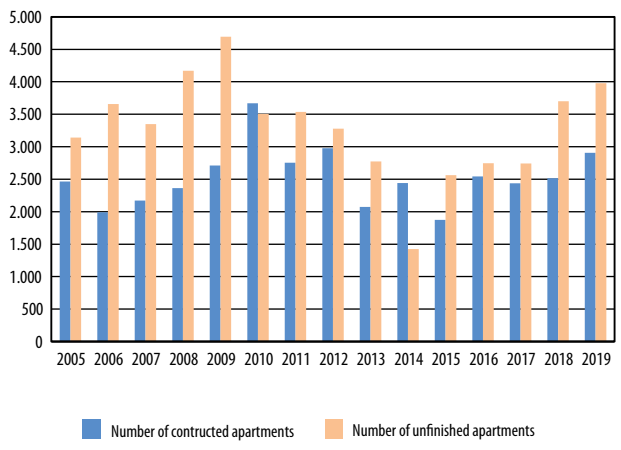
The movement of prices on the real estate market, and especially the movement of prices of residential real estate, is one of the important indicators of the overall economic activity in the country. The residential real estate price index is most affected by developments in the real estate market in the capital, given the largest volume of real estate turnover, and the movement of real estate prices in the Capital is significantly influenced by macroeconomic conditions compared to other cities, where adjustments to macroeconomic conditions are considerably weaker and the population mobility is lower.

[7] In 2019, the number of finished apartments increased by 15.6%, as well as their area by 15.4% compared to the previous year.

[8] The methodology for calculating the real estate price index was explained in the 2007 Financial Stability Report. The real estate price index for the City of Sarajevo does not include the Municipality of Stari Grad, which has not responded to the data submission calls since 2008. Since 2010, the Municipality of Tuzla has been included and submitted the data for the period since 2008. The RS Tax Administration was not able to provide data for the cities of Banja Luka and Bijeljina in the required format needed to calculate the index. When forming the real estate price index, the data on the real estate prices for newly built residential buildings are not used.

During 2006 and 2007, the real estate prices recorded strong growth, reaching their historical maximum in mid-2008. Strong growth in demand for residential real estate in the period 2006-2008 encouraged investments in the housing construction, which peaked in 2010. At the end of 2008, the effects of the global economic crisis began to be reflected in the BH markets as well. Reduced demand and tighter financing conditions in banks, along with a significant amount of previously initiated investments in new construction, led to a significant imbalance between supply and demand, and consequently to a sharp decline in real estate prices (Graph 2.6).

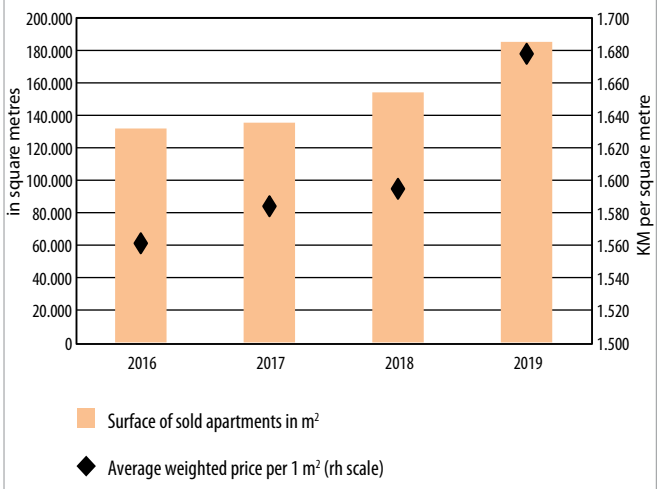
Graph TO3.1: Constructed and Unfinished Apartments



Source: Agency for Statistics of BiH

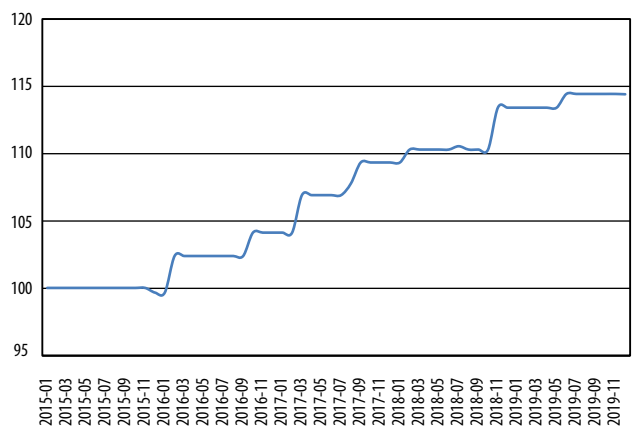
The recovery in the real estate market has been evident since the end of 2016. The growth in demand for residential real estate stimulated an increase in the volume of construction works in 2018 and 2019; however, the volume of constructed apartments and apartments under construction has still not exceeded the values from 2009 and 2010. Significant increases in rent prices, and an increase in the number of employees in construction and real estate activities in 2018 and 2019, are additional indicators of the increase of activities in the real estate market. The growth of demand in the last few years is to some extent influenced by demographic migrations of the population, increased needs for tourist accommodation facilities, as well as investments in rental housing units, but it is not possible to determine precisely to what extent these segments have an impact on the growth of demand for residential real estate, given the underdeveloped statistics in BH. Through data on the growth of tourism (among other things, the increase in the number of tourist overnight stays in 2019 by 12% compared to 2018), it can be concluded that investing in real estate for this purpose is one of the drivers of strengthening activities in the real estate market. Increasingly present investments in real estate intended for rent, motivated by the increase of monthly rent prices of housing units, are also the generator of demand for residential real estate.

Graph TO3.2: Sold Newly Built Apartments



Source: Agency for Statistics of BiH

Graph TO3.3 : Consumer Price Index - Renting Fees, 2015 = 100



Source: Agency for Statistics of BiH

Based on macroeconomic indicators and indicators from the real estate market, it can be assessed that the residential real estate market in BH is in a phase of expansion. Real estate prices are rising, construction is rising, and rent prices are rising, with a simultaneous drop in the unemployment rate and moderate GDP growth. In addition to the aforementioned, real estate prices

Table TO3.1: The Selected Macroeconomic Indicators

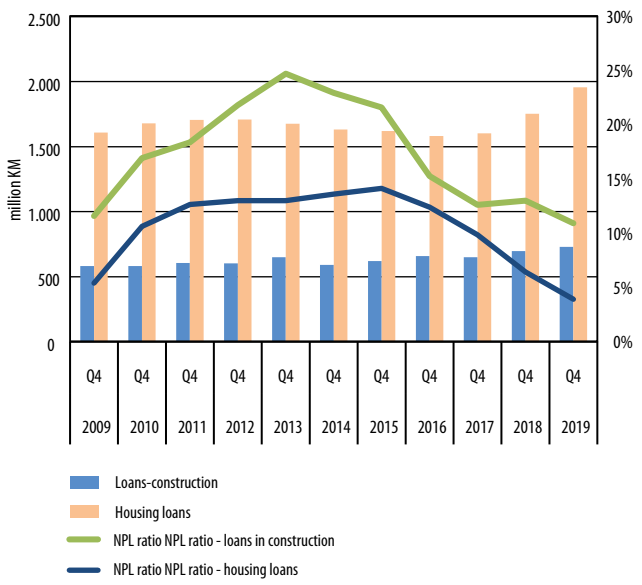
Year	Real GDP growth	Inflation	Credit growth of household sector	Interest rates on household loans	(Pre-owned) real estate price growth
2006	5,4%	6,1%	26,6%	9,6%	15,0%
2007	5,9%	1,5%	30,0%	9,4%	44,8%
2008	5,4%	7,4%	17,8%	9,5%	17,4%
2009	-3,0%	-0,4%	-5,9%	10,0%	-11,4%
...	...	...	...	...	...
2017	3,2%	1,2%	6,7%	6,5%	1,2%
2018	3,6%	1,4%	7,3%	5,7%	0,6%
2019	2,6%	0,6%	8,0%	5,5%	4,9%

Source: Agency for Statistics of BiH

have not yet reached 2008 levels. In general, it is very difficult to assess at which level of prices the supply and demand in the real estate market in BH are in equilibrium, taking into account that processes of privatisation and restitution, migration of the population, strengthening of the banking sector capacities and the entry of foreign banking groups into the market were taking place in our country until the early 2000s. If several key indicators from the pre-crisis period are compared with the current indicators, it can be assessed that the current macroeconomic conditions are significantly different, and that the new crisis caused by the COVID-19 pandemic should not cause as strong negative consequences for the financial sector as it was the case after the onset of the global economic crisis. If we look only at the data, without taking into account all the mentioned circumstances, in the period before 2008, we can see "school" signs of "overheating of the economy": High growth rates of real GDP, excessive credit growth in the household sector, with high interest rates on loans. Currently, economic growth indicators are moderate, the terms for granting loans over the past decade have been relatively harsh, and interest rates on housing loans are at historically minimum levels. Thus, there are indications that trends i.e. activities in the real estate markets are partly stimulated by the activities of the non-resident sector.

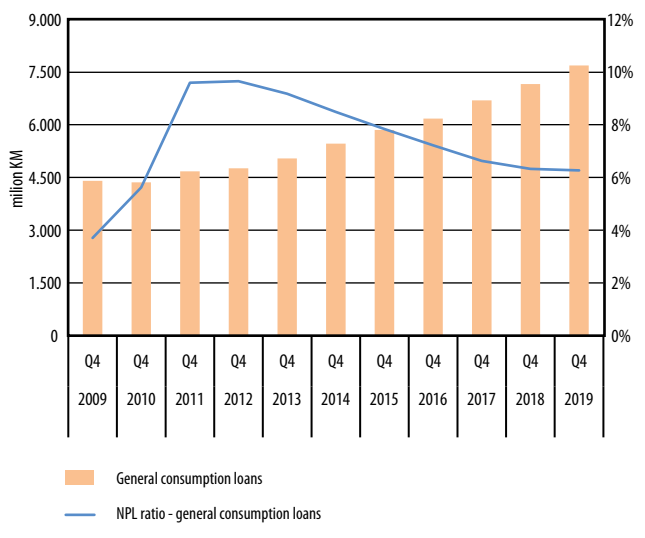
However, it is certainly to be expected that with the prolongation of the duration of the 2020 crisis, the risks in the banking sector will intensify in the coming years, primarily in terms of the weakening of demand for loans and deterioration of the loan portfolio quality, primarily that of non-purpose retail loans. The dynamisation of activities in the real estate market in the previous period was a significant generator of credit growth in the household sector. The quality of the housing loans portfolio has also significantly improved in the last four years. The share of non-performing loans in total housing loans, which in 2016 amounted to as much as 14%, at the end of 2019 was 4%. In the reference period, a strong growth of general consumption loans was evident, based on which it can be concluded that a certain part of housing loans was refinanced from general consumption loans, and that a significant part of these loans was used to finance residential real estate, taking into account that loans of high amounts and long repayment terms were approved. Data on credit growth of housing loans confirm these conclusions. Housing loans stagnated in the period 2016-2017, and after the introduction of regulatory restrictions in 2017 regarding the limitation of the amount and approval period, and the ban on refinancing housing loans with non-purpose loans to individuals, a significant increase in housing loans in 2018 and 2019 was evident (9.4% and 11.7%). According to information published by the banking agencies, it is precisely these loans that were mostly the subject of requests for rescheduling as part of a temporary measure that banks are applying to mitigate the economic consequences caused by the COVID-19 virus.

Graph TO3.4: Loans in Construction Sector and Housing Loans



Source: FBA and BARS

Graph TO3.5: General Consumption Loans



Source: FBA and BARS

3. Government

Risks to financial stability arising from the fiscal sector in 2019 were at a relatively low level, and did not change significantly compared to the previous year. At the consolidated level, a fiscal surplus was achieved due to a slightly higher growth of budget revenues compared to the budget spending growth. The general government sector indebtedness was reduced in 2019, and all fiscal sustainability risk indicators were in the safe area.

Fiscal sustainability risk indicators in 2019 showed a low level of risk to financial stability coming from the Government sector[9]. All fiscal sustainability risk indicators for BH in 2019 were in the safe area according to defined reference levels and did not suggest any concerns in terms of the fiscal sustainability (Table 3.1). Compared to the previous year, there was an improvement in all indicators, except for the indicators *Average public debt maturity* and *Cyclically-adjusted primary balance, expressed as a percentage of potential GDP[10]*, which slightly deteriorated in 2019. The average public debt maturity decreased slightly, as in 2019 there was an increase in domestic debt, which is usually contracted with significantly shorter maturity compared to external debt. According to IMF projections, the *Cyclically-adjusted primary balance expressed as a percentage of potential GDP*, also deteriorated slightly, as in 2019 the budget surplus was slightly lower at the consolidated level compared to the previous year. On the other hand, other fiscal sustainability risk indicators were improved. Thus, financing needs were lower than in the previous year, given that a smaller amount of debt of the general government of BH fell due in 2019, while at the same time there was a fiscal surplus at the consolidated level of BH. The public debt of the BH general government sector expressed as a percentage of GDP, although slightly higher than in the previous year, also recorded an improvement in value. The improvement in the value of the observed indicator was influenced by the higher growth rate of nominal GDP compared to the public debt growth recorded in 2019. In addition, the share of public debt denominated in foreign currencies was reduced compared to the previous year, which led to a decrease of currency risk and fiscal sustainability risk on this basis. With a smaller amount of short-term external debt due in 2019, the growth of foreign exchange reserves had an effect on the improvement of the indicator *Short-term foreign public debt expressed as a percentage of foreign exchange reserves.* A slight deterioration of the two indicators did not increase the fiscal sustainability risk, as they were also in the safe area, i.e. significantly below the reference limits.

Table 3.1: Indicators of Fiscal Sustainability Risk

Indicator	Safe area	Benchmark level	Level in BH	Changes compared to the previous year
r - g[1]	<	1,1	-1,1	-0,08
Public debt of general Government sector (% of GDP)	<	42,8%	32,0%	-1,3%
Cyclically adjusted primary balance (% of potential GDP)2	>	-0,5%	1,0%	-0,5%
Financing needs (% of GDP)	<	20,6%	1,9%	-0,5%
Share of short-term debt in the total debt, remaining maturity	<	44,0%	12,2%	-1,9%
Debt denominated in foreign currency (non-euro)3	<	40,3%	28,9%	-1,6%
Average maturity of public debt (years)	>	2,3	6,34	-0,10
Short-term foreign public debt (% of foreign currency reserves),remaining maturity	<	61,8%	6,1%	-1,3%

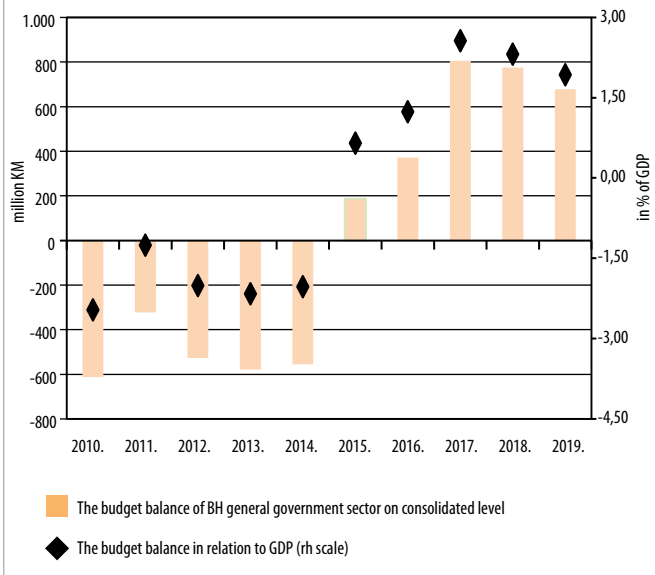
Source: CBBH, MFT of BH, BHAS, BH Fiscal Council, IMF, Ministries of Finance of FBH and RS, calculation by CBBH
Notes:
[1] r - Implicit interest rate on Government sector debt decreased by GDP deflator (moving average for five years); g - growth rate of real GDP (moving average for five years)
[2] The IMF projection from October 2019 was used for 2019.
[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 .

[9] IMF Working Paper, WP/11/100: E. Baldacci, I. Petrova, N. Belhocine, G. Dobrescu and S. Mazraani - Assessing Fiscal Stress was used to calculate fiscal sustainability risk indicators

[10] Indicator values taken from the IMF, WEO database, October 2019

In 2019, a fiscal surplus was achieved due to a slight increase in budget revenues compared to the budget spending growth. The total budget surplus at the level of BH on a consolidated basis amounted to 1.93% of GDP. According to the CBBH data, the general government sector revenues increased by KM 628.5 million (4.4%) in 2019 compared to the previous year. The most significant impact on the increase in the revenue side of the budget was due to the growth of tax revenues, which in 2019 increased by KM 325.7 million (4.2%). The growth of the budget revenue side was also influenced by the growth of other categories of budget revenues, i.e. the growth of revenues from social contributions (KM 303.9 million) and grants (KM 58.6 million), while other revenues recorded a decrease of KM 59.6 million. At the same time, the budget spending growth was lower than in the previous year. In 2019, budget expenditures increased by KM 595.7 million (4.7%). Expenditures on employees' compensations recorded a significant increase compared to the previous year (9.2%), while expenditures on social assistance, which at the same time represent the largest item on the budget expenditure side, had a lower growth rate in 2019 (4.2%).

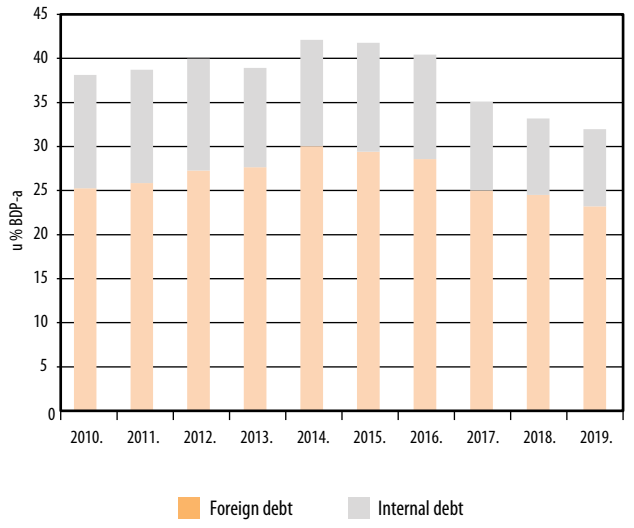
Graph 3.1: The Budget Balance of BH General Government Sector, in Per Cents of GDP



Source: CBBH, BHAS, calculation by CBBH

General government sector indebtedness increased slightly in 2019, with public debt expressed as a percentage of GDP continuing to decline for the fourth year in a row. According to the data of the MoFT BiH, the public debt at the end of 2019 amounted to KM 11.2 billion, and compared to the previous year it was higher by KM 93.69 million or 0.84%. The increase in public debt in 2019 was the result of an increase in internal indebtedness in BH in the amount of KM 159.73 million (5.5%), while external debt decreased by KM 66 million (0.8%). The share of public debt expressed as a percentage of GDP was 32% and was 1.2 percentage points lower than in the previous year (Graph 3.2).

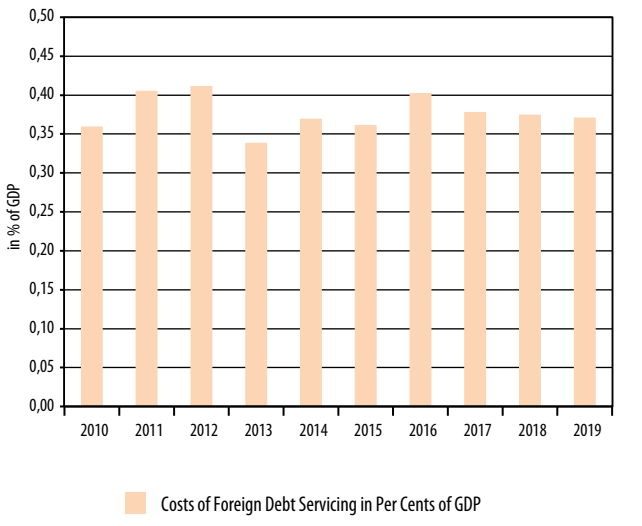
Graph 3.2: BH Public Debt, in Per Cents of GDP



Source: MFT BH, BHAS, calculation by CBBH

In 2019, due liabilities on external debt were serviced in the total amount of KM 793.7 million, whereby KM 663.7 million of the principal sum and KM 130 million of interest were repaid. External debt service costs, expressed as a percentage of GDP, amounted to 0.37% in 2019 and were 0.4 basis points lower than in the previous year (Graph 3.3).

Graph 3.3: Costs of Foreign Debt Servicing, in Per Cents of GDP



Source: MFT BH, BHAS, calculation by CBBH

The average contracted interest rate on external debt in 2019 continued to grow slightly, while the exposure to interest rate risk decreased significantly. According to the data of the MoFT BiH, the average interest rate on external debt in 2019 amounted to 1.66%, which was-an increase of 8 bp compared to the last year. Of the total external debt, 32% referred to debt contracted with a floating interest rate, and it can be assessed that the external debt exposure to interest rate risk remained high. However, compared to the previous year, the interest rate risk exposure was significantly reduced, taking into account that the share of floating interest rate loans in 2019 was lower by 8.36 percentage points. The refinancing risk was also slightly reduced, given the lower share of debt (in total debt) due in the coming year, but at the same time the average maturity of debt slightly deteriorated compared to the previous year. In terms of currency risk, the situation was ~~is~~ somewhat more favourable in 2019 compared to the previous year, as the share of foreign debt contracted in other foreign currencies, excluding the euro, decreased by 1.62 percentage points. Nevertheless, the currency structure of the external debt remained rather unfavourable and carried high risk given that 39.79% of the external debt was contracted in foreign currencies other than the euro and exposed to the risk of changes in the exchange rate.

Unlike previous years in which government foreign borrowing significantly contributed to the growth of foreign exchange reserves, this effect has weakened in the last two years. In the last few years, reserve assets i.e. foreign exchange reserves were increasing mostly under the influence of net external borrowing (Graph 2.1). However, the growth of foreign exchange reserves in 2019 was lower than in the previous year, as there was a decrease in inflows from other investments in the financial account of the balance of payments (more details in Chapter 2). As in the previous year, the amount of external debt repayment exceeded the amount of government sector's new borrowings from abroad. In addition to the already mentioned decrease in inflows in the banking sector, which slowed down the growth of foreign exchange reserves, the net borrowing of the government sector had a negative effect on the level of foreign exchange reserves in 2019.

Having in mind the already agreed credit arrangements for remediating the consequences of the Coronavirus pandemic in BH, a significant increase in the external indebtedness of the government sector is expected in 2020. And while on the one hand, an increase in net inflows of the government sector on the financial account of the balance of payments will reduce the pressure on the level of foreign exchange reserves, on the other hand the growth of foreign debt certainly increases the country's external vulnerabilities.

In 2019, the international rating agencies kept BH's long-term credit rating unchanged; B with a positive outlook in the case of S&P, and B3 with a stable outlook in the case of Moody's. In February 2020, the S&P agency reaffirmed the positive outlook for BH's long-term sovereign rating, while at the end of April 2020, as part of an extraordinary assessment that the S&P agency conducted for most countries, it downgraded the credit rating outlook for BH from positive to stable. According to analysts' estimates, the negative economic consequences of the COVID-19 pandemic in BH will spill over directly through foreign trade channels, and due to the expected sharp decline in real GDP, BH's fiscal and external outlook will deteriorate. The S&P agency has retained a long-term credit rating of B for BH in the expectation that the measures taken by the BH authorities will significantly contribute to mitigating the negative economic and financial effects of the pandemic. The text box below describes the measures adopted by the entity governments in BH by mid-June 2020 with a view to mitigating the negative economic consequences of the COVID-19 pandemic.

Text box 4: Activities and measures of governments in BH for stabilizing the economy and mitigating the negative economic consequences of the Coronavirus pandemic

The epidemiological measures adopted to prevent the spread of Coronavirus infection and the declaration of a state of emergency in BH in mid-March 2020 led to a reduction or halt of operations in many economic activities, which had a negative impact on all segments of the domestic economy. Therefore, the

governments in BH have taken a number of actions in various areas, in order to mitigate these negative consequences and adopt measures that seek to provide assistance to sectors affected by the crisis. Among the measures that are important, from the financial stability point of view, one can single out various fiscal incentives for business entities, as well as measures adopted by the Banking Agencies in order to provide assistance to all clients who are in any way affected by the negative economic effects of the pandemic. The FBH has adopted the Law on Mitigation of Negative Economic Consequences of the Coronavirus Pandemic, which foresees the measures to help the economy in the form of subsidizing the contributions of business entities for compulsory social insurance; suspension of calculation and payment of default interest on public revenues; cancellation of the obligation to pay an advance tax payment on corporate income for business entities, as well as on income from self-employment for 2020. In addition, the Law stipulates the maintaining of the stability of payments of pensions, disability benefits and other social benefits, which will be provided from the FBH budget for 2020. Also, the Law has established the Guarantee Fund that will be used to secure credit lines with commercial banks, in order to mitigate liquidity risks and improve liquidity, and to facilitate access to finance for businesses. The Government of Republika Srpska and the Emergency Situations Headquarters have passed a series of decrees with legal force with a view to mitigating the harmful consequences of the Coronavirus on the RS economy, which temporarily postpone i.e. prolong the payment of taxes and fees for business entities that have difficulties in doing business. The decree on the Solidarity Fund for the Reconstruction of RS has been adopted, as well as the decision on the reduction of parafiscal fees. In the service sectors and the part of production most affected by the crisis, the payment of the minimum wage and contributions for workers has been ensured, and conclusions have been issued on the exercise of the right to incentive funds. Also, the Government of the RS has prepared a set of medium-term measures related to the Guarantee Programme of support to the economy for mitigating the consequences of the Coronavirus pandemic. The goal of the Guarantee Programme is to facilitate access to finance for micro, small and medium enterprises by issuing a guarantee to secure claims on loans approved by banks or microcredit organizations.

An extraordinary meeting of the Standing Committee on Financial Stability, which, in addition to the permanent members, was also attended by the director of the Association of Banks of BH, was held on March 18, 2020. There was a discussion on possible measures and activities that SCFS members can take within their competencies with the aim of a coordinated action to preserve financial stability in the country. The CBBH has at its disposal the possibility to reduce the reserve requirement rate, if the need arises, and has undertaken to enable the supply of banks with cash at any time. Immediately after the declaration of the pandemic, the Banking Agencies started drafting regulations for managing the incurred risks and providing benefits to citizens and legal entities when servicing obligations to banks. In addition, it has been recommended to citizens to use electronic means of payment as much as possible in accordance with the adopted epidemiological measures, while banks will be able to fulfil all the requirements of their depositors and maintain business continuity.

On April 20, 2020 the IMF approved 333m euros in emergency aid to Bosnia and Herzegovina, under the Rapid Financing Instrument (RFI) to combat the crisis caused by COVID-19.

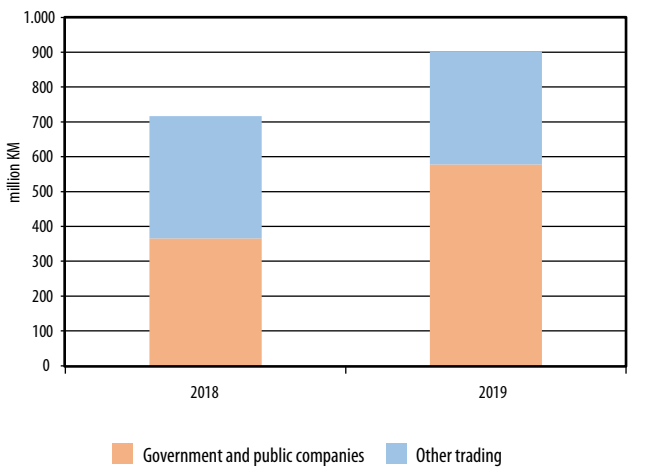
In late March, the Entities' Banking Agencies adopted interim measures to be applied by banks to mitigate the economic consequences of the COVID-19 virus, and these included the possibility of approving moratoriums, grace periods, extending repayment and loan maturities deadlines, as well as, the possibility of granting additional funds to clients whose creditworthiness deteriorated due to the negative impacts caused by the pandemic. Also special rules for credit risk management were stipulated as well as preventive measures for preserving capital, which included withholding profits from 2019, banning or postponing the payment of dividends and bonuses, and using the protective layer of capital. Interim measures were also adopted for leasing companies, microcredit organizations. In parallel, the agencies provided financial intermediaries under their supervision with reliefs regarding the obligation to report to the Agencies.

The government measures taken to stabilize the economy and preserve the stability of the banking and financial sectors will, on the one hand, mitigate the negative economic and financial consequences of the pandemic, but on the other hand, increase the need for financing. The decline in consumption and imports will lead to a reduction in budget revenues, while the measures taken to stabilize the economy will increase budget expenditures in 2020, which is why in the coming period we can expect deterioration of the fiscal indicators and an increase in risks coming from the government sector.

The government sector, which remains the most significant driver of activity on the two domestic stock exchanges, recorded an increase in indebtedness in the internal market in 2019. As a result of the increase in indebtedness of the general government sector, the total turnover on the BH stock exchanges increased in 2019 (Graph 3.4). The total of 17 issues of government sector bonds and treasury bills were

recorded on both stock exchanges during 2019, while 5 of such issues were recorded in 2018. The FBH Government recorded six issues of long-term bonds in the nominal amount of KM 200 million, with a maturity of 3 to 10 years and interest rates ranging from 0.05% to 0.80%. Also, the Government of FBH organized one auction of treasury bills in the total nominal amount of KM 20 million with a maturity of 9 months and an interest rate of -0.1950%. The RS Government had eight bond issues in the nominal amount of KM 271.8 million with a maturity of 5 to 10 years and an interest rate ranging from 2.3% to 4%. Also, the RS Government recorded two issues of treasury bills in the total amount of KM 40 million and a maturity of 6 months, with interest rates ranging from 0.0% to 0.0993%.

Graph 3.4: Trading in BH Capital Markets



Source: SASE and BLSE, calculation by CBBH

Financial intermediaries, primarily domestic banks, are generally buyers of governments' primary debt securities, which are rarely traded on the secondary market. In 2019, the exposure of the banking sector to all levels of government in BH increased, but there are still no indications that the exposure to the government sector is growing at the expense of the private sector. According to the CBBH data, the total indebtedness of the government sector with commercial banks in BH is higher by 11.5%, with the commercial banks' portfolios showing an increase of loan-based debt by 3.6%, and the securities-based debt by 17.5% (Table 3.2). In the first four months of 2020, the indebtedness of the government sector with commercial banks further increased, mostly through an increase in the purchase of Entities' securities.

4. Households

Despite the slight recovery in the real sector, the gradual revival of activities on the real estate market and the improved indicators on the labour market, which have been identified in the previous chapters, there was no significant improvement of the household living standards. Somewhat more favourable labour market conditions contributed to a slight increase in consumption and increase in household debts. The increase of household debts was largely due to the increase of households' indebtedness under bank loans. The lowering trend of active interest rates contributed to an increased demand for loans, while the banks, even in 2019, largely granted replacement loans with more favourable repayment terms. The quality of the retail loan portfolio continued to improve slightly also as a result of the activities undertaken by individual banks for the permanent write-off of non-performing loans and the frequent implementation of loan rescheduling. However, there was a stronger intensity of reclassification of loans to non-performing loans compared to the previous years, and the first signs of materialisation of the credit risk for general consumption loans, which have recorded a significant growth in the previous years, are visible. The continued upward trend in total household deposits is mostly

Table 3.2: Commercial Bank Claims on Government Sector — million KM

Claims	2014	2015	2016	2017	2018	2019	04 2020
Central government	**0,2**	**0,2**	**0,2**	**0,1**	**0,1**	**0,1**	**4,1**
Loans	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Securities	0,2	0,2	0,1	0,1	0,1	0,1	4,1
Entity level government	**1.273,1**	**1.589,6**	**1.633,3**	**1.624,8**	**1.735,3**	**2.006,8**	**2.245,9**
Loans	565,6	600,9	424,6	410,0	517,3	580,1	588,8
Securities	707,5	988,7	1.208,7	1.214,9	1.218,0	1.426,6	1.657,1
Canton government	**142,0**	**209,7**	**218,2**	**206,2**	**160,5**	**127,2**	**111,9**
Loans	142,0	209,7	218,2	200,2	154,5	114,5	99,2
Securities	0,0	0,0	0,0	6,0	6,0	12,7	12,7
Municipality government	**342,4**	**304,5**	**282,2**	**293,1**	**295,6**	**308,7**	**317,1**
Loans	339,2	301,9	280,2	291,0	285,7	297,7	306,7
Securities	3,2	2,6	2,0	2,1	9,9	11,0	10,3
TOTAL	**1.757,6**	**2.103,8**	**2.133,9**	**2.124,2**	**2.191,5**	**2.442,7**	**2.679,0**
Loans	1.046,7	1.112,5	923,2	901,2	957,5	992,3	994,8
Securities	710,9	991,3	1.210,7	1.223,0	1.234,0	1.450,4	1.684,2

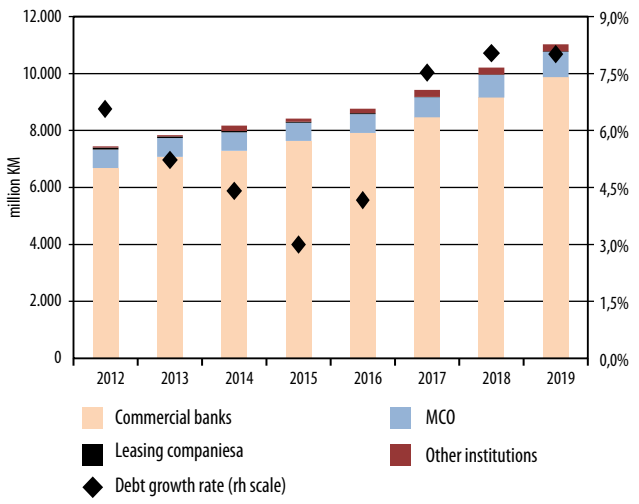
Source: CBBiH

determined by the increase of funds on transaction accounts and sight deposits, while household savings in the form of term deposits are slightly increased after being stagnant for several years, which, in addition to the existing low level of disposable income was also a result of continued lowering of the passive interest rates. Given the significant proportion of loans granted with floating interest rates or with a fixed interest rate period of up to one year, the interest rate risk is considered a potential risk for the household sector.

The indebtedness of the household sector continued to increase in 2019 driven by the increase in consumption in this sector due to a slight increase of the economic activity and somewhat more favourable conditions on the labour market compared to the previous years. According to CRC data, the total indebtedness of the population at the end of 2019 stood at KM 11.03 billion and increased by 8% compared to year-end 2018.[11] Expressed as a GDP percentage, the household debts increased by 33 basis points, compared to the previous year, and reached 31.5% at the end of 2019.

The indebtedness of the population in 2019 increased both with the commercial banks and with other financial institutions. The commercial banks are the main creditors of the household sector and the increase of indebtedness with these financial institutions made the largest contribution to the growth of the total household debt. The household indebtedness with commercial banks increased by 7.9% compared to the end of the previous year, but nevertheless, due to the significantly higher household indebtedness with other financial institutions as expressed in percentage points, the share of indebtedness with commercial banks is lower by 13 basis points compared to the end of the previous year. The household indebtedness with micro-credit organizations recorded an upward trend for a fourth consecutive year and, according to CRC data, it is higher by 11.6% compared to year-end 2018. The upward trend of indebtedness with micro-credit organizations indicates that a significant number of households was still unable to meet the conditions for borrowing from commercial banks, but were forced to borrow from micro-credit organizations under significantly less favourable conditions.[12] The household indebtedness with leasing companies also increased in 2019, but the share of debt with these institutions in the overall household debt was negligible at only 0.22% (Graph 4.1).

Graph 4.1: Household Debt to Financial Institutions



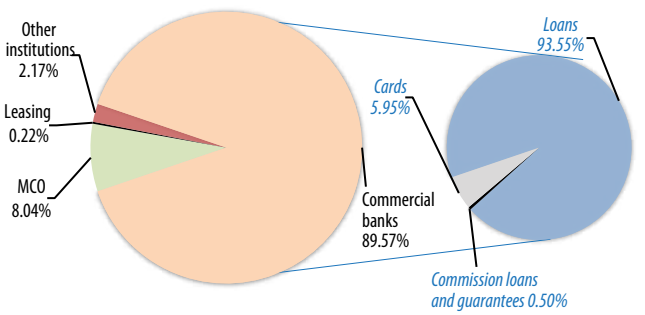
Source: CRC

The structure of household debt to commercial banks by the type of debt did not change significantly in the past period. The largest portion of household debt with commercial banks related to loans, which increased by 8.2% in 2019. In the course of 2019, debt related to other type of banking products also increased, except for commission loans. Nevertheless, the share of loan-related debt in the overall household indebtedness to commercial banks continued to grow and increased by 31 basis points compared to the end of 2018. Thus, the loan-related debt accounted for high 93.55% of the household indebtedness to commercial banks (Graph 4.2).

[11] In 2017, the increase of total household indebtedness amounted to 7.5%, and in 2018, the increase was 8.3%.

[12] In 2018, average weighted interest rate on loans with MCO in FBH was 24.38%, while average weighted interest rate on loans with MCO in RS was 22.56%.

Graph 4.2: Household Debt per Institutions and Type of Debt, 2019



Source: CRC, calculation by CBBH

The upward trend of using payments cards in BH continued also in 2019. An increase of the number of issued payment cards has been recorded as well as increase of the total used card overdraft. However, the average household indebtedness on payment cards did not change significantly compared to the previous year.

According to CRC data, the number of active payment cards as well as the amount of the approved limit and used limit are higher under all types of cards compared to the end of last year, where the largest growth was recorded in the debit cards segment (Table 4.1)[13]. The amount of debt per payment card is higher only when it comes to debit cards, while the total household debt per payment card is lower by -0.9% compared to the end of 2018. Although the downward trend of used limit per credit card has been stopped after five consecutive years, the significantly higher number of approved cards than the amount used contributed to a reduction of the average household debt per credit card also in 2019. This trend in the household indebtedness per credit card is largely affected by the high relevant costs. In 2020, it is likely to expect that cards payment will be more frequent due to the COVID-19 pandemic. Also, it is likely to expect that indebtedness under all types of cards will increase, particularly under debit cards used to finance the basic subsistence needs.

Considering the structure of household debt, a debt growth was recorded in 2019 under all three types of loans by purpose. The structure of household debt was dominated by general consumption loans, which also include debts under all types of cards (Graph 4.3.) The general consumption loans have recorded a growth for a ninth consecutive year. At the end of 2019, the household debt under this type of loan was higher by 7.4% compared to the same period in 2018. The stronger demand for this type of loan also in 2019 was filled by the higher supply of non-purpose and replacement loans under more favourable terms. The continued upward trend of general consumption loans indicates that a large number of households continued to finance their current subsistence needs from card overdrafts, non-purpose or consumer loans. Moreover, given the fact that some citizens were unable to meet the banks' criteria for granting housing loans, the general consumption loans were also partly used to finance the housing needs. After the multiannual downward trend of household debt under housing loans was halted in 2017, this type of loans recorded their largest growth in 2018 since the pre-crisis period, accompanied by strengthened activities on the real estate market, and they grew at an annual rate of 11.7%. Given the slightly stronger relative increase of debt under housing loans related to other types of loans, their share in the overall housing loans increased slightly for a second consecutive year and reached 19.8% at the end of 2019. The household debt under business loans in 2019 increased by 5.2%.

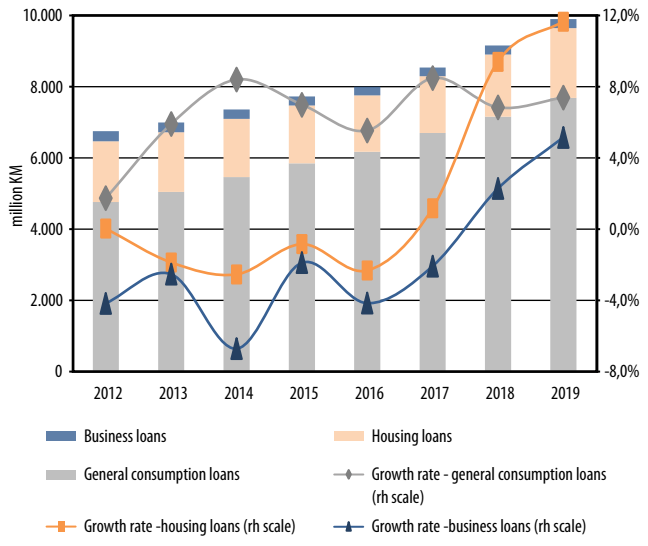
Table 4.1: Claims on Households, Cards — in KM

	Number of active cards		Approved amount		Used amount		Debt per card	
	2019	Annual change	2019	Annual change	2019	Annual change	2019	Annual change
Debit cards	708.807	4,2%	844.645.415	6,5%	368.735.266	5,4%	520	1,2%
Credit cards	259.367	7,6%	360.868.147	3,3%	178.787.005	0,9%	689	-6,2%
Deferred payment cards	147.888	2,2%	160.942.518	0,5%	40.178.832	1,2%	272	-1,0%
TOTAL	**1.116.062**	**4,7%**	**1.366.456.079**	**4,9%**	**587.701.103**	**3,7%**	**527**	**-0,9%**

Source: CRC

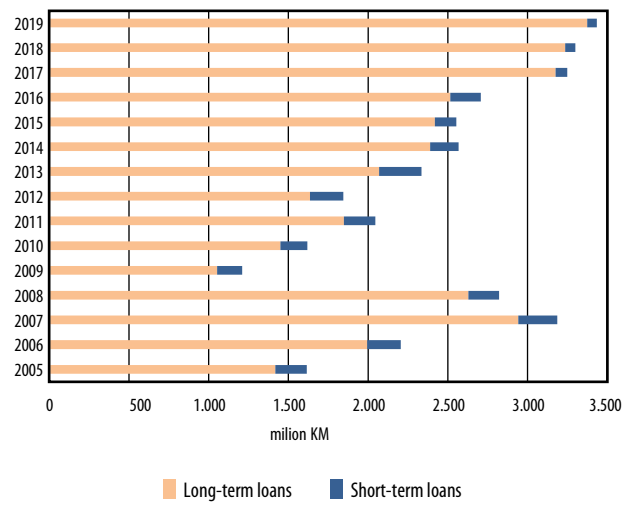
[13] During the analysis, debit cards without approved overdraft and without household debt were not taken into consideration, although such cards were recorded in the CRC by the banks.

Graph 4.3: Household Loans by Purpose and Credit Growth



Source: FBA and BARS, calculation by CBBH

Graph 4.4: Newly Approved Household Loans



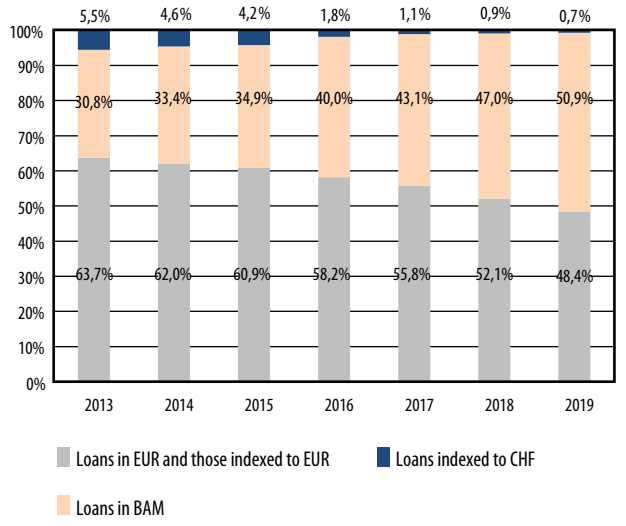
Source: CBBH, calculation by CBBH

According to CBBH data, in 2019, 3.43 billion of new loans were allocated to households, which is their highest amount so far. Given the fact that these records also include earlier approved rescheduled loans, the growth of these loans cannot be interpreted solely as the result of increased consumption in the household sector and improved situation on the labour market, but partly also due to rescheduling of loans under new terms, i.e. approval of replacement loans. Compared to the previous year, in 2019, 4.1% more loans were either granted or rescheduled to households, whereby an increase was recorded only in the case of long-term loans (Graph 4.4).

The crisis caused by the COVID-19 pandemic has affected the credit activity in 2020. Thus, already in March 2020, 32.7% less loans were granted than in March 2019, while in April 2020, the amount of granted household loans was lower than one fourth of the loans granted in April 2019. The overall amount of newly granted loans in the first five months in 2020 is lower by 40.6% than in the same period last year.

The currency structure of the household loans is dominated by loans with the euro currency clause. Taking into account the existing board regime in BH and the commitment to keep it in the future, the indebtedness of the population in EUR does not make the currency risk exposure higher. In addition, in the past years, there was a noticeable trend of decline in the share of foreign currency loans and indexed loans in the total household loans, which continued into 2019, thus further reducing the risk. According to CRC data, loans in euro and the euro currency clause grew at a 0.5% rate in 2019, while loans in KM recorded an annual growth rate of 17.2%, thus the share of household loans in foreign currencies and with a currency clause reduced from 52.1% at the end of 2017 to 48.4% of the total household loans at the end of 2019. The largest share of these loans involved loans indexed to euro. The household debt on loans indexed to CHF decreased from 5.5% in 2013 to 0.7% of the total household loans at the end of 2019 (Graph 4.5).

Graph 4.5: Currency Structure of Household Loans



Source: CRC

In 2019, there was an increase in the long-term household loans in relation to all maturity categories, with the largest increase recorded in the category of loans granted for a period longer than ten years, which may be related to the increase in housing loans. The remaining debt related to loans granted for a period of up to one year was lower by 0.3% compared to the end of 2018. Loans to households in the local currency increased compared to the previous year in each category of loans by maturity, while the household debt related to loans granted or indexed to EUR increased in relation to loans with agreed maturity of over five years (Table 4.2).

The level of non-performing loans to households continued to decline also in 2019. After recording a decline in the range of 7.2% to 9.1% over the recent three years, the non-performing loans decreased by 1.6% in 2019. The share of non-performing loans in the total household loans continued to decline for a seventh consecutive year, which was also significantly contributed by the growth of placements to households. At the end of 2019, the share of non-performing loans in the total household loans amounted to 5.9% or 59 basis points less than the same period last year (Graph 4.6). The improved quality of the loan portfolio in this sector over the recent years is partly a result of the activities carried out by individual banks, such as the permanent write-off of non-performing loans. Also, the more efficient credit risk management in banks over the last couple of years and the advantages in loan repayment in the form of loan rescheduling and moratorium to clients, who were facing difficulties in repaying their credit obligations, greatly contributed to the prevention of deterioration in the quality of the credit portfolio in the household sector.

Considering the quality of the loan portfolio by loan purpose, the largest decrease of non-performing loans, both in absolute and relative terms, was recorded in the category of housing loans, as in the previous three years. Thus, the non-performing housing loans at the end of 2019 were lower by 32.1% compared to the end of 2018. Unlike the housing loans segment, the general consumption loans segment, which recorded significant growth rates in the previous years, the non-performing loans are recording an upward trend for a second consecutive year. The growth of non-performing general consumption loans in 2019 by 6.4%, in addition to their 2.2% growth in 2018, indicates that there was a gradual materialisation of risk of the household over-indebtedness under general consumption loans.

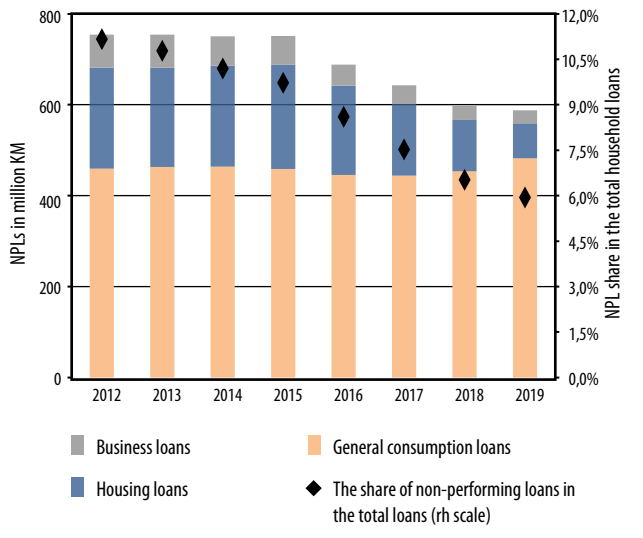
The share of non-performing loans in the total household loans in 2019 was reduced across all categories of loans by purpose, including the general consumption loans whose modest decrease of 6 basis points related to non-performing loans was a result of the strong credit growth in this segment of household loans (7.4%). It should be noted that the decreased share of non-performing loans in the total housing loans from 9.9% at the end of 2017 to 3.9% at the end of 2019 was a positive trend, contributing to a stronger credit growth in this category of loans (11.7%).

Table 4.2: Loans to Households, Maturity and Currency Structure — in KM

Remaining debt and due uncollected principal, thousand KM								
			Foreign currency loans and indexed loans				TOTAL	
Maturity / Currency	BAM		EUR		CHF			
	2019	Annual change	2019	Annual change	2019	Annual change	2019	Annual change
Up to 1 year	72.690	0,5%	4.202	-13,3%	0	0,0%	76.892	-0,3%
1 - 3 years	304.239	18,6%	61.623	-33,5%	4.333	-38,7%	370.195	3,9%
3 - 5 years	760.100	26,2%	160.539	-36,9%	27.136	-10,3%	947.776	6,9%
5 - 10 years	1.748.952	15,6%	1.698.813	1,5%	23.473	-16,4%	3.471.239	8,0%
Over 10 years	1.819.050	15,9%	2.544.074	5,0%	6.791	-38,4%	4.369.915	9,2%
TOTAL	**4.705.032**	**17,2%**	**4.469.250**	**0,5%**	**61.734**	**-19,2%**	**9.236.017**	**8,2%**

Source: CRC

Graph 4.6: Non-performing Loans in Household Sector by Purpose



Source: FBA, BARS calculation by CBBH

Graph 4.7: Non-performing Loans in the Total Loans to Households, by Banks

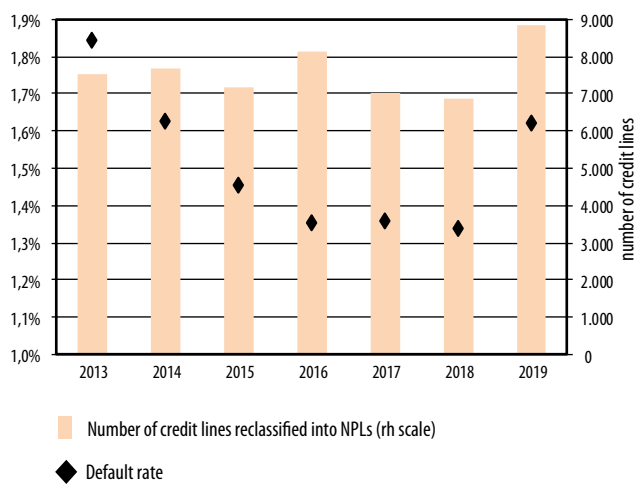
Source: FBA, BARS calculation by CBBH

Observing the quality of the loan portfolio in the household segment by individual banks, it is evident that the share of non-performing loans in the total household loans in 2019 declined with most banks in the sector, including the banks having the largest concentration of non-performing loans (Graph 4.7). However, during 2019, the non-performing general consumption loans increased in absolute terms in fourteen banks and, in seven of these banks, their share in the total loans also increased. This, on the one hand, indicates that most of the banks in the recent years have frequently approved non-purpose and replacement loans under more lenient terms, which enabled households to take more loans; while on the other hand, the over indebtedness of some households was unsustainable in terms of their income. The effects of the COVID-19 pandemic further increase the risk of inability of households to service their liabilities, so the quality of the general consumption loan portfolio can be expected to deteriorate in the period to come.

In addition to the share of non-performing loans in the total loans, the intensity of deterioration of the repayment regularity is also monitored on a quarterly basis, i.e. the reclassification of loans from performing to non-performing loans both by the number of credit lines and by the amount of the outstanding debt. Based on the reclassification of loans by the amount of the outstanding debt, the default rate[14] is calculated. According to CRC data, the number of credit lines reclassified as non-performing loans from the end of 2018 to the end of 2019 is higher by even 28.9%, while the amount of outstanding debt under all lines is higher by 32.5% compared to the previous year. The default rate for household loans, which stood at 1.62% in 2019, increased by 28 basis points compared to 2018, and it reached its highest level since 2013. The intensity of deterioration of repayment regularity indicates that the number of households facing debt repayment problems is on the rise, and despite the decline of the amount of non-performing loans and their share in the total loans, it cannot be concluded that the risk in 2019 reduced (Graph 4.8). This is also indicated by the default rate data by individual banks, given the fact that a bit higher default rate is recorded in 10 banks compared to the previous year, among which are the three biggest banks in the sector in terms of total assets.

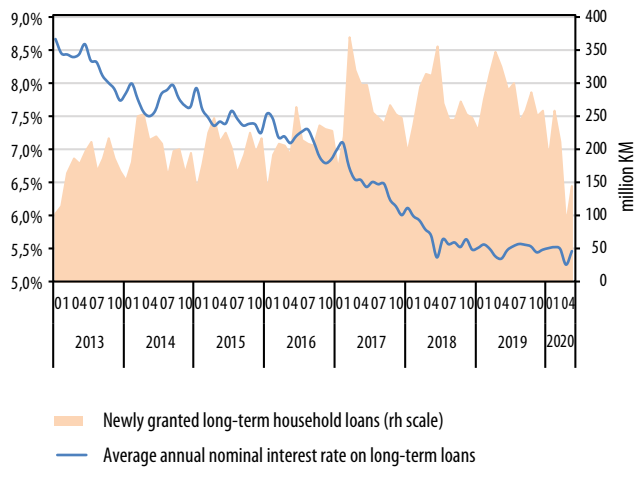
[14] The default rate is calculated as the ratio of outstanding debt under household loans, reclassified to non-performing loans (categories C, D and E) during one period, and the value of total performing loans portfolio (categories A and B) from the previous period.

Graph 4.8: Default Rate



Source: CRC, calculation by CBBH

Graph 4.9: Newly Granted Long-term Loans and Average Weighted Interest Rates

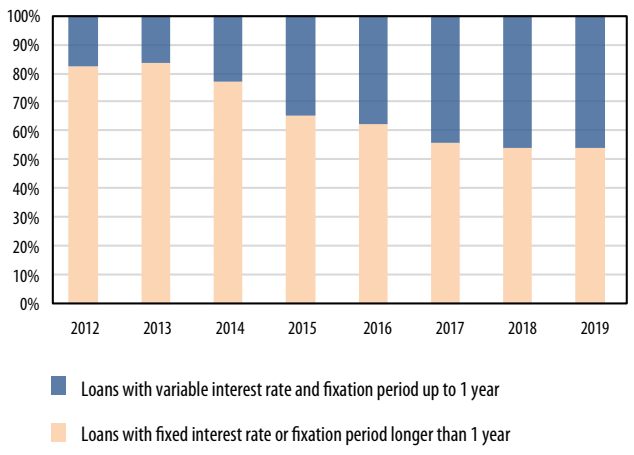


Source: CBBH, calculation by CBBH

As a result of continued low interest rates on the international financial markets and the banks' efforts to gain greater market share in a highly competitive banking market, the interest rates on household loans continued to decline in 2019. The average nominal interest rate on long-term loans in 2019 amounted to 5.48% or 20 basis points lower than in the previous year. The more favourable borrowing conditions for households in the past few years partly contributed to the growth of demand for loans. In the first five months of 2020, the average weighted interest rate on long-term loans (5.48%) did not change significantly compared to its amount in the same period last year (Graph 4.9).

Although the interest rates are not expected to rise significantly neither in the euro area nor in BH by the end of the year, the households' exposure to the interest rate risk should not be underestimated, especially given that loans to households are dominated by loans with a floating interest rate or with a fixed interest rate of up to one year. Given that the increase of disposable household income is uncertain in the period ahead, and that unemployment increase is expected, even a milder rise of the interest rates would be a significant burden for some households and would make it difficult to repay their credit obligations. The interest rate risk in the BH banking sector was partly mitigated in the recent years due to the increased lending at fixed interest rates or by extending the interest rate fixation period. In addition, the rescheduling of previously granted loans often entails signing contracts with more favourable terms for the clients, which also includes fixation of the previously floating interest rate. A downward trend of the share of loans with floating interest rate or fixation period up to one year in the newly granted loans to households was recorded from 2014 to 2018, and in 2019, these loans accounted for 54.1% of the total newly granted loans to households, or 23 basis points more than at the end of 2018 (Graph 4.10).

Graph 4.10: Newly Granted Loans according to the Interest Rate Fixation Period

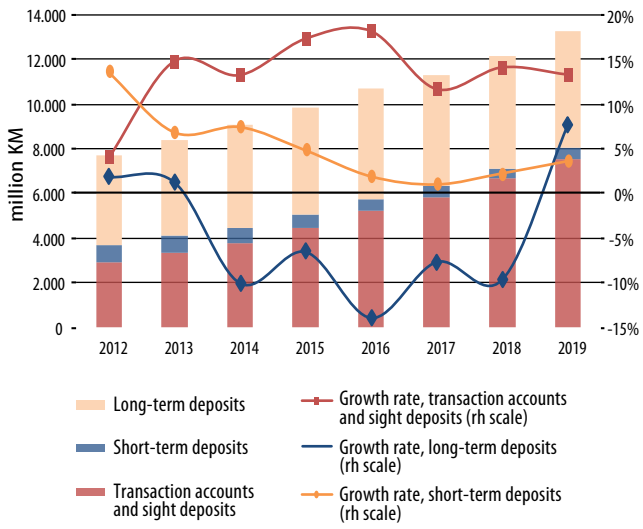


Source: CBBH, calculation by the CBBH,

Although the total household deposits continued to grow in 2019, their growth was primarily driven by the increase of funds on transaction accounts and the increase of sight deposits. However, unlike the previous three years, the household term deposits also recorded a growth, both those with up-to-one-year maturity and over-one-year maturity. The share of household deposits in the total deposits with commercial banks has continued to decline for a third consecutive year[15].

According to CBBH data, at the end of the year, the household deposits amounted to KM 13.24 billion or 9% more than at the end of 2018. The largest contribution to the growth of total household deposits, both in absolute and relative terms, was the growth of funds on transaction accounts (17.7%) as well as the growth of sight deposits (10.2%). Having recorded a downward trend for five consecutive years, the term deposits with up-to-one-year maturity grew at a 7.7% rate in 2019, while the long-term deposits grew at a 3.6% rate (Graph 4.11). According to data from the Deposit Insurance Agency (DIA), the category of deposits exceeding the insured savings amount of over KM 50 thousand recorded a higher growth than the category of deposits of up to KM 50 thousand, both in terms of the number of deposit contracts and in terms of the termed deposit amounts. Given the fact that only 1.8% of the total deposit accounts refer to deposits of over KM 50 thousand, and that deposit accounts of up to KM 50 thousand, including all current accounts of households, are dominated by deposit accounts with smaller amount of funds[16], it may be concluded that only a small share of the population is able to save, particularly larger amount of funds. Also, the data indicating the year-on-year deposits growth cannot be interpreted as an indicator of a better living standard.

Graph 4.11: Household Deposits by Maturity



Source: CBBH, calculation by CBBH

The household deposits continued to grow in the first two months of 2020, but, due to the panic caused by the COVID-19 pandemic in March 2020, funds from banks were withdrawn and the total household deposits decreased by 2.3% compared to the previous month. A significant number of the citizens have either lost part or all of their income, but despite that, the funds on transaction accounts and the sight deposits started to grow already in April, while the funds on transaction accounts at the end of May almost reached their level as of February-end 2020. Unlike the funds on transaction accounts and the sight deposits, the short-term deposits and particularly the long-term household deposits continued to decline in April and May 2020. Due to the uncertainty in terms of the further development of the situation with the pandemic, the citizens hardly decide to conclude new deposit agreements or are no longer able to save due to falling income in their households, so they either partly keep their matured termed funds as sight deposits or redirect them to consumption. Thus, in the period March-May 2020, the value of newly concluded saving agreements for a period longer than one year was lower by

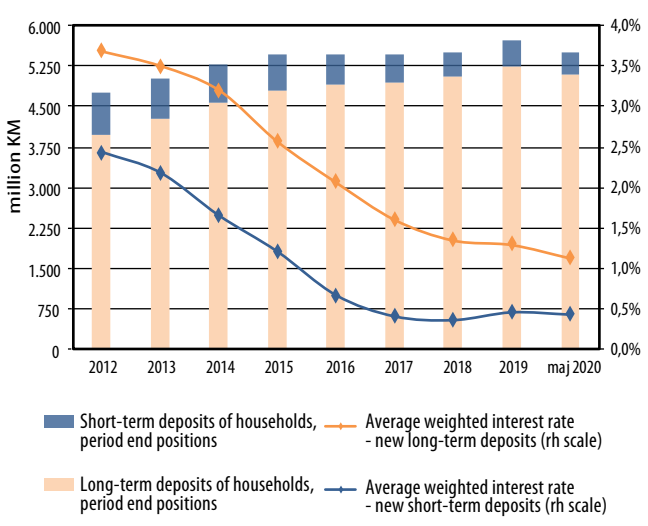
[15] The share of household deposits in the total deposits in the banking sector decreased by 26 basis points compared to the end of 2018, and by 4.7 percentage points compared to the end of 2016.

[16] The average amount of funds on deposit accounts in the category of deposits up to KM 50 thousand amounted to KM 2362 at the end of 2019.

38.9% compared to the same period of the previous year. As of March, the effects of the COVID-19 pandemic on the structure of deposits by the termed amount were more visible in the segment of deposit accounts with smaller amount of funds as no reduction was recorded of deposit funds on accounts in the category of over KM 70 thousand.

Under the influence of low interest rates on the international financial markets, the passive interest rates continued to decline in 2019 as well, reflecting negatively on the level of household savings. The average weighted interest rate on household deposits with agreed maturity (term deposits) in 2019 amounted to 1.17% and was lower by 4 basis points than in the previous year. The average weighted interest rates have continued to decline significantly since January 2020; thus, in the first five months of 2020, the average weighted interest rates on new long-term and short-term deposits were lower by 16 and 3 basis points, respectively (Graph 4.12).

Graph 4.12: Term-deposits of Households and Interest Rates on Deposits



Source: CBBH, calculation by CBBH

5. Corporates

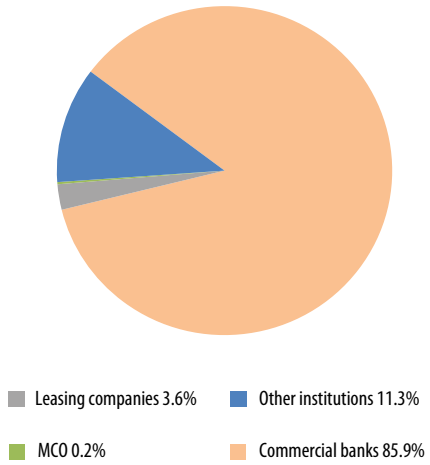
Overall indebtedness of the non-financial corporate sector towards national financial mediators in 2019 has slightly increased compared to the previous year. The reduction of non-performing loans in the non-financial corporate sector continued, and the default rate indicates that regular servicing of liabilities based on credit indebtedness of this sector has been improved. In financing its business activities, the corporate sector, as in previous years, mostly relied on the credit support from banks. The average interest rates maintained a declining trend, enabling the corporates to borrow on relatively favourable terms. On the other hand, the shock that hit several industries in the real sector in 2019, primarily the industrial production, and the reduction of the export of goods have negative impact on the perspective of this sector, and the consequences of the spillover of the crisis caused by the Coronavirus pandemic will materialize the fastest in the non-financial corporate sector due to the strong drop in revenue and high fix expenditures in business activities in which the economic activity has been partially or completely halted. Consequently, in the upcoming period, and particularly after the expiration of the temporary measures adopted by the governments and regulators aiming to mitigate the negative economic consequences of the pandemic, significant risk growing in the non-financial corporate sector is to be expected.

The foreign trade volume in 2019 decreased due to a slight increase of the import value and decrease of the export value. The export growth rate in 2019 recorded a decrease compared to the previous year, and was 3.4%, while the import grew at a 1.2% rate. The total export value in 2019 was KM 11.50 billion, which is a decrease by KM 407.7 million compared to the previous year. The most significant export products are still *Base Metals*, i.e. *Iron and steel* and *Aluminium and Aluminium Products,* however the growth of export of these products weakened significantly compared to the previous year and recorded a decrease of 8.3%. The closing of a strategic enterprise in the aluminium industry had the biggest impact on the reduced export, based on which the aluminium export decreased by 25%. The value of iron and steel export was also reduced by 8.7% due to a drop in the iron ore price at the international market, whilst the export of steel and iron ore products recorded positive growth rates. Within the most important export products group, the mineral origin products recorded the largest decrease in export in 2019 (17.7%). The Oil Refinery Bosanski Brod was under repair throughout 2019 which had a negative impact on the production and export of petroleum products. In the *Wood and Wood Products* group the biggest impact on the weaker export growth of 5.7% compared to the previous year had export decline in the *Manufacture of Wood and Products of Wood and Cork*. On the other hand, the electricity export remained almost unchanged compared to the previous year, while machines, appliances and electrical devices recorded an export increase of 5.1%. Value of imports in 2019 was KM 19.5 billion and compared to the previous year is higher by KM 224.5 million, or 1.2%. The slight growth of imports reflected a slight growth of economic activity in the country, i.e. increase in domestic consumption in the past period.

Import of goods in the first half of the year recorded a positive growth rate, whilst the import was reduced in the second half of the year and negative growth rates were recorded. In the category with the highest nominal value of import, *Mineral Fuels, Mineral Oils and Products of their Distillation*, the growth value of imports is determined primarily by the price effect, i.e. drop in oil prices in the international market. Import of this product category was reduced by 3.3% compared to the previous year, due to the weakening of economic activity and drop in oil prices, much was more pronounced in the second half of the year. The import of goods *Base Metals, Aluminium and Aluminium Products, Iron and Steel, Iron and Steel Products* recorded a decrease by 2.3%. Reduction of the Base Metals import was recorded in the second half of the year; quantities of imported iron and steel and their products, and aluminium were also reduced in the second half of the year. Out of all main import product groups, only the import of *machinery, appliances and electrical devices* recorded increase by 3.2%. Reduction of export and increase of import resulted in reduction of the export-import coverage, and thus increase of the trade deficit by 8.5% whose value was KM 8.0 billion at the end of the year. Table A4 in the Statistical Appendix shows the groups with the largest share in foreign trade, and the estimated price effects and effects of changes in volume of exported and imported goods on the value of exports and imports in the most important product groups compared to 2018. It is evident that the crisis caused by the COVID-19 pandemic in 2020 will have a huge negative impact on the global economy, and on our country, particularly in the context of foreign trade, since Bosnia and Herzegovina is a small open economy. Already in the first quarter of 2020 the volume of foreign trade in BH recorded decrease. The export on quarterly basis was reduced by KM 199 million, or 7.0%, whereby the import was reduced by KM 583 million, or 11.9%.

The overall indebtedness of the non-financial corporate sector towards national financial mediators in 2019 has increased compared to the previous year. According to CRC data, the total corporate indebtedness to all financial mediators at the end of 2019 amounted to KM 13.25 billion. Measured by the share of GDP, the total corporate indebtedness to all financial mediators was 37.8% of GDP, which was an increase of 3.6 percentage points compared to the previous year. Debt of the corporate sector in the domestic financial market mostly refers to the indebtedness to the banking sector. Indebtedness in the capital market is still minor. The debt of legal entities in the banking sector is 85.9% of total debt to all financial mediators in BH (Graph 5.1).

Graph 5.1: Claims on Companies by the Type of Debt at 2019 End



Source: CRC

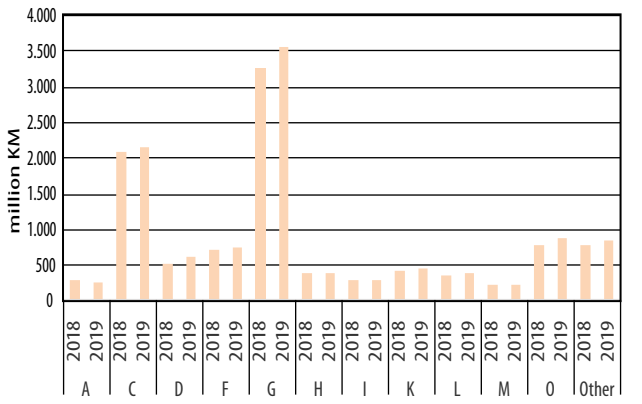
According to the CRC data, the total debt of legal entities to banks in BH at the end of 2019 increased by 5.6% and amounted to KM 11.38 billion, or 32.5% of GDP. Debt of legal entities to microcredit organizations recorded increase of 4.4%, whilst total debt of legal entities to leasing companies was reduced even by 27.6% compared to the previous year.

In 2019, the credit activity in the non-financial corporate sector was weaker compared to the previous year. During 2019, the non-financial private companies sector was approved new loans of KM 3.66 billion by commercial banks, a reduction by 2.9% compared to the previous year. As in the previous year, in 2019, the financing of major investment projects in the non-financial corporate sector with bank loans was weaker, given that the amount of newly approved long-term placements in the category of over one million euros was 21.3% lower than in the previous year.

Companies in business activities with more significant growth of gross added value have recorded an increase of their credit indebtedness. In 2019, gross added value decline was recorded in the following sectors: A *(agriculture, forestry and fishery)*, B *(mining and quarrying)*, C *(manufacturing industry)*, F *(construction)*, and R *(art, entertainment and recreation)*. On the other hand, the highest growth rates of gross added value in 2019 were recorded in the sectors: I *(accommodation and food service activities)*, G (*wholesale and retail trade*), K *(financial activities and insurance activities)*, N *(administrative and support service activities) and* J *(information and communications)*, and it can be concluded that the overall economic activity is increasingly dependent on the service sector.

Traditionally, the exposure of the banking sector in BH is strongest to companies in *Trade* and *Manufacturing Industry,* and the banking sector claims on companies in these two sectors make up 53% of total claims. The credit indebtedness of companies in *Trade* increased by 8.6%, whilst due to the decline in gross added value in the *Manufacturing Industry,* the relevant companies recorded a modest growth of indebtedness by only 2.4%. Total credit indebtedness of companies in other sectors slightly increased, with the exception of companies in *Agriculture, Forestry and Fishery*, whose credit indebtedness recorded a decrease of 12.6%.

Graph 5.2: Claims on Companies by the Selected Activities in 2019

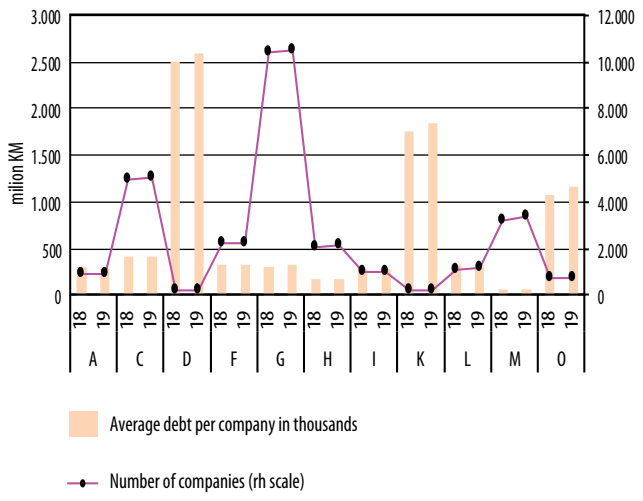


Source: FBA, BARS

Legenda:		
A	-	Poljoprivreda, šumarstvo i ribolov
C	-	Prerađivačka industrija
D	-	Proizvodnja i snabdijevanje električnom energijom, plinom, parom i klimatizacija
F	-	Građevinarstvo
G	-	Trgovina na veliko i malo; popravak motornih vozila i motocikala
H	-	Prevoz i skladištenje
I	-	Djelatnosti pružanja smještaja, te pripreme i usluživanja hrane (hotelijerstvo i ugostiteljstvo)
K	-	Finansijske djelatnosti i djelatnosti osiguranja
L		Poslovanje nekretninama
M		Stručne, naučne i tehničke djelatnosti
O		Javna uprava i odbrana, obavezno socijalno osiguranje
OTHER		
E		Snabdijevanje vodom; uklanjanje otpadnih voda, upravljanje otpadom, te djelatnosti sanacije okoliša
J		Informacije i komunikacije
N		Administrativne i pomoćne uslužne djelatnosti
P	-	Obrazovanje
Q	-	Djelatnosti zdravstvene i socijalne zaštite
R	-	Umjetnost, zabava i rekreacija
S	-	Ostale uslužne djelatnosti

Observing the average corporate indebtedness, the total number of companies as well as the average indebtedness in all sectors recorded growth, with the exception of A *(agriculture, forestry and fishery)*, which recorded an average indebtedness decrease of 10.9% and reduction in the number of companies by 1.9%. G *(wholesale and retail trade, repair of motor vehicles and motorcycles)* recorded significant growth of average indebtedness of 8.1%, solely due to the larger amount of debt. Almost all sectors, which recorded increase in average indebtedness, simultaneously recorded increase in the number of companies (Graph 5.3)[17].

Graph 5.3: Average Corporate Debt by the Selected Activities in 2018 and 2019



Source: FBA,BARS, BHAS, calculation by CBBH

Following the last-year increase in classic loans share with contractual maturity over 10 years, in 2019, the share of these loans reduced by 1.2%. According to the CRC data, indebtedness on the basis of classic loans in almost all categories of maturity increased. In the corporate sectors according to the contractual maturity, majority of loans were long-term loans as in the past years. Loan share with contractual maturity up to 1 year recorded decrease in 2019 by 12.8% compared to the previous year. Long-term loans with the contractual maturity from 5 to 10 years still have the biggest share (41.3%), and unlike the previous year, in 2019,

[17] Data on the number of companies are provided by the Agency for Statistics of BiH, namely from the Unit of Statistical Register of Companies 30/06/2019, and are related to the number of companies as of 30/06/2018 and 30/06/2019.

the share of loans with contractual maturity over 10 years decreased in long-term loans (1.2%). (Table 5.1).

companies authorized to buy out debts, and by permanently writing off the non-performing loans. Consequently, most

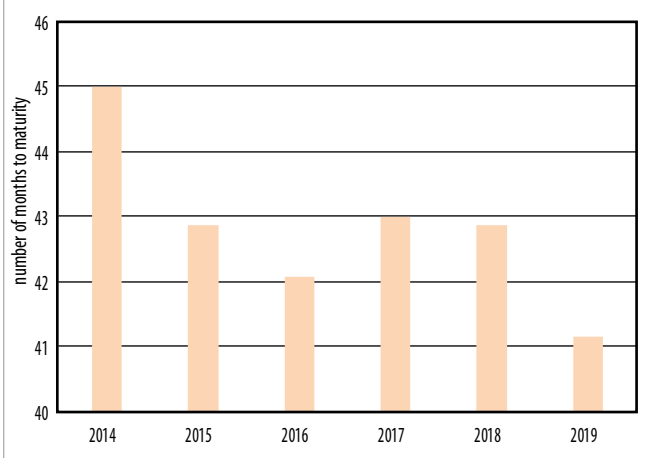
Table 5.1 : Loans to Corporates, Maturity and Currency Structure of the Remaining Debt **thousand KM**

	Remaining debt and due uncollected principal					
		Foreign currency loans and indexed loans				TOTAL
Maturity	BAM	EUR	CHF	USD	KWD	
Up to 1 year	423.157	211.499	0	79.747	0	714.403
1 to 3 years	856.063	483.497	0	23.148	0	1.362.709
3 to 5 years	673.670	782.962	215	0	66	1.456.913
5 to 10 years	1.194.469	2.179.214	284	0	967	3.374.933
Over 10 years	373.555	895.467	275	473	0	1.269.771
TOTAL	**3.520.915**	**4.552.639**	**774**	**103.368**	**1.032**	**8.178.729**

Source: CRK

The average weighted maturity of loans[18] in the corporate sector calculated by residual maturity at the end of 2019 was 41.1 month, i.e. 1.7 months shorter than in the previous year (Graph 5.4).

Graph 5.4: Average Loan Maturity



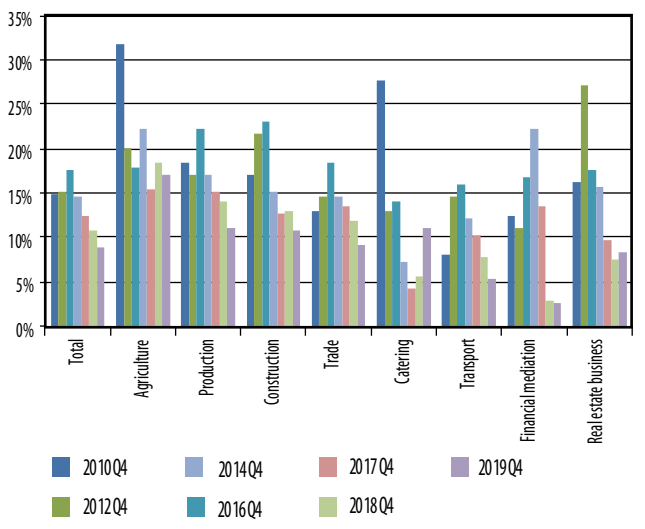
Source: CRC, calculation by CBBH

The credit risk of the corporate sector was reduced in 2019, although the banks' balance sheets still recorded a relatively high level of non-performing loans in this sector. The share of non-performing loans in total loans in the corporate sector at the end of 2019 was 8.77%. The non-performing loans decreased by 2.03% in 2019 compared to the previous year. In previous periods, the banks undertook activities to address the issue of non-performing loans by selling a share of the non-performing loan portfolio to banks in the system recorded a lower level of credit risk as a result of the operations with the corporate sector. In relation to the quality of the loan portfolio observed by activity, a decrease in non-performing loans in total loans was recorded in almost all economic sectors in 2019, except in *Accommodation and Food Service*, and *Real Estate Business*.

In the corporate sector in 2019, in addition to the recorded decrease in non-performing loans, a lower *default rate* was also recorded compared to the previous year, indicating the reduced loan risk. The *default* rate in the corporate sector in 2019 was 1.01%, i.e. less by 75 base points compared to the previous year. Reduced loan risk was recorded with majority banks in the system. There is an evident multi-year trend of improved orderly repayment of corporate loans, supported by the continuous reduction in the number of credit lines that are being reclassified from performing into non-performing loans.

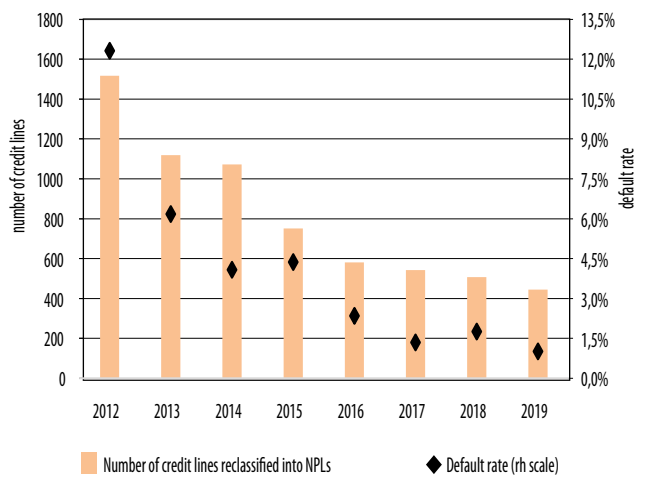
[18] The end-of-year credit data used by commercial banks to report to CRC were used to calculate the average maturity of the loan. The average loan maturity at the end of each year was calculated as weighted average of the residual maturity, where the remaining debt on each individual loan is used as a weight.

Graph 5.5: Share of Non-performing Loans in the Total Loans to Companies, by Activities



Source: FBA and BARS, calculation by CBBH

Graph 5.6: Annual Default Rate



Source: CRC, calculation by CBBH

Due to the Coronavirus outbreak at the beginning of 2020, a significant decrease in the growth of gross added value is expected in the industries that recorded significant growth in 2019. Thus, the most affected industries are *accommodation and food services*, *transport of passengers*, and *entertainment and creative industry*. Due to declining demand from BH's main foreign trade partners, Germany and Italy, and drop of imports from China, companies whose operations depend heavily on foreign trade (areas depending on the supply chain in the chemical, automotive and textile industries) have faced issues related to their business activities as early as the end of 2019. These companies will be further affected in 2020, given the significant reduction in exports and imports in the context of the strong macroeconomic shock caused by the Coronavirus pandemic in 2020. Weakening of economic activity in the countries that are BH's main foreign trade partners will have a negative impact on the business activities of companies in the most important sectors *C (manufacturing industry)* and G *(wholesale and retail trade)*. Consequently, it is anticipated that the demand for loans in these sectors will decrease, which will additionally affect corporate lending, bearing in mind that the entire banking sector relies on corporate lending in manufacturing industry and trade.

Gradually, the mentioned negative effects are being transferred to all other industries, whereby the increased *default* rate and non-performing loans are expected in all industries, particularly after the expiry of temporary measures adopted at all levels of government in BH aimed at stabilizing the economy and mitigating the negative economic consequences of the Coronavirus pandemic.

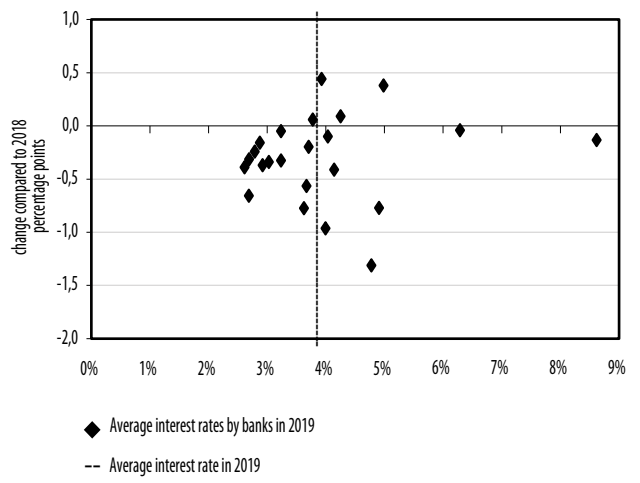
The exposure of the corporate sector to the currency risk did not change significantly compared to the previous year. The currency risk in the existing monetary regime does not represent a significant source of risk to the operations of companies. Corporate debt on the basis of standard loans denominated or indexed in euro at the end of 2019 amounted to 55.7% of total bank receivables from the corporate sector. Compared to the previous year, their share decreased by 4.8 percentage points. At the same time, the share of loans granted in local currency increased by 5.0 percentage points, and at the end of 2019, the remaining debt from these loans accounted for 43% of the total indebtedness of the corporate sector. The share of debt denominated in other currencies was only 1.2% and recorded a slight decrease compared to the previous year. Observed by maturity categories, in the maturity category up to 1 year and from 1 to 3 years, most of the debt, as in the previous year, was denominated in KM, while in all other maturity categories most of the debt was denominated in euro.

The trend of decreasing the interest rates on newly approved loans in the non-financial corporate sector continued throughout 2019. According to CBBH data, the average interest rate[19] in the non-financial corporate sector

[19] Official interest rates are regularly published on the CBBH website, and the calculation is carried out for the purpose of analysis, i.e. interest rates weighting by scope of approved loans in all categories.

in 2019 was 3.43%, i.e. 0.37% lower than in the previous year. With the exception of four banks, all other banks in the system recorded a decrease in the average interest rate (Graph 5.7). The average interest rate ranged from 2.69% to 8.62%. In 2019, the average interest rate on newly approved loans in local currency was slightly lower than in the previous year, at 3.34%. The average interest rate on newly approved loans indexed in foreign currency also decreased to 2.25% compared to the previous year. The decrease of interest rates in the domestic banking market was primarily driven by favourable financial conditions in international markets and the still low bank financing costs. The fall in interest rates can also be attributed to the banks' competitiveness in the domestic banking market and to their high liquidity. It is certain that the banks will maintain the low active interest rates policy as long as they are able to absorb the pressure on the net interest margin from operating revenues, in more favourable borrowing conditions in the international markets.

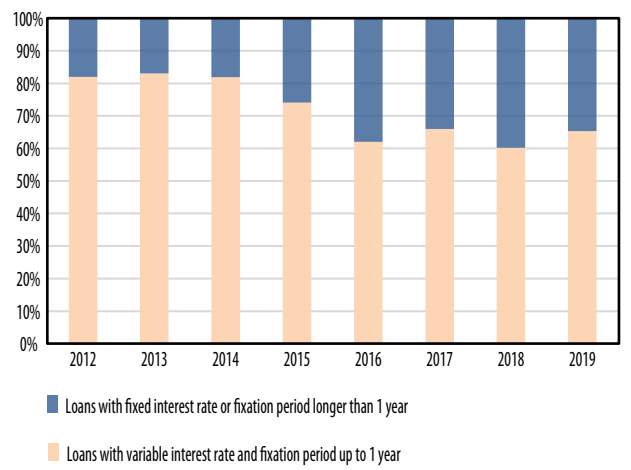
Graph 5.7: Interest Rates on Loans to Companies, by Banks



Source: CBBH, calculation by CBBH

During 2019, exposure of the corporate sector to the interest rate risk increased due to a more intensive credit indebtedness with a floating interest rate. After the multi-annual decline in the share of these loans discontinued in 2017, the share of loans with floating interest rates and fixation period up to 1 year increased again in 2019. In the structure of newly approved loans in 2019, the share of floating rate loans, i.e. loans with the initial period of fixed interest rate up to 1 year, accounted for 65% or 5.3% higher than in the previous year (Graph 5.8).

Graph 5.8: Newly Granted Loans by the Interest Rate Fixation Period



Source: CBBH, calculation by CBBH

6. Financial Mediators

The slight growth of economic activity in the country had a favourable effect on the strengthening of stability and recovery of the financial system operations in BH. Total assets of financial mediators continued to grow during 2019, with the banking sector still playing a dominant role in the assets growth (Table 6.1).

Table 6.1: The Financial Intermediaries Assets Value

	2017		2018		2019	
Maturity	Value, million KM	Share, %	Value, million KM	Share, %	Value, million KM	Share, %
Banks [1)]	27.248,8	88,3	29.854,2	88,5	32.508,2	88,7
Leasing companies [1)]	260,2	0,8	297,2	0,9	323,7	0,9
Microcredit organisations [1)]	788,7	2,6	887,5	2,6	991,0	2,7
Investment funds [2)]	846,9	2,7	887,3	2,6	852,1	2,3
Insurance and reinsurance companies [3)]	1.717,2	5,6	1.818,7	5,4	1.966,9	5,4
Total	**30.861,7**		**33.744,8**		**36.641,9**	

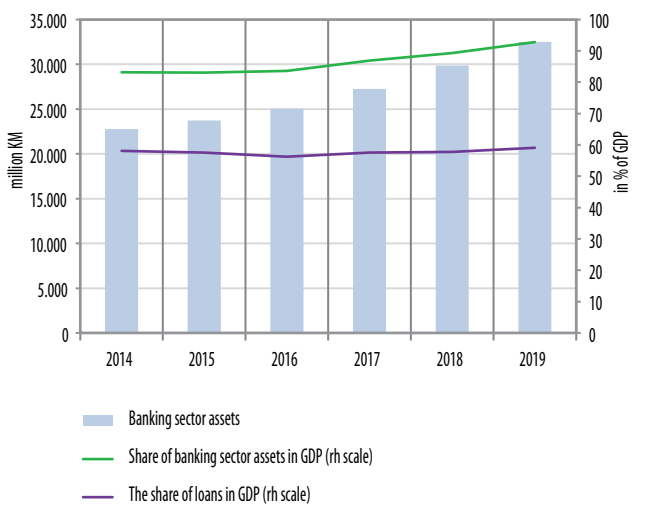
Source:
1 - FBA and BARS
2 - FBH and RS Commissions for Securities
3 - Entities' Agencies for Supervision of Insurance Companies, BH Insurance Agency
Calculation by CBBH

6.1.Banking sector

In 2019, positive trends in the banking sector that started in the previous year and decrease of the risk to financial stability arising from the banking sector continued. All the financial health indicators improved, active interest rates slightly decreased due to favourable financing terms for banks, and moderate credit activity was recorded. Good capital positions of banks should enable banks to be the key factor in mitigating negative consequences on the BH economy in the upcoming period. It can be concluded that the maturity structure of the funding sources currently represents one of the main risks to the financial stability.

In 2019, the banking sector assets increased by 8.9% on annual basis, and the balance sheet growth slowed down slightly compared to the previous year (Graph 6.1). Under the influence of credit activity which, together with the liquid assets growth, contributed the most to the banking sector assets growth, banking sector assets expressed in GDP percentage reached the highest recorded level of 92.8% at the end of 2019.

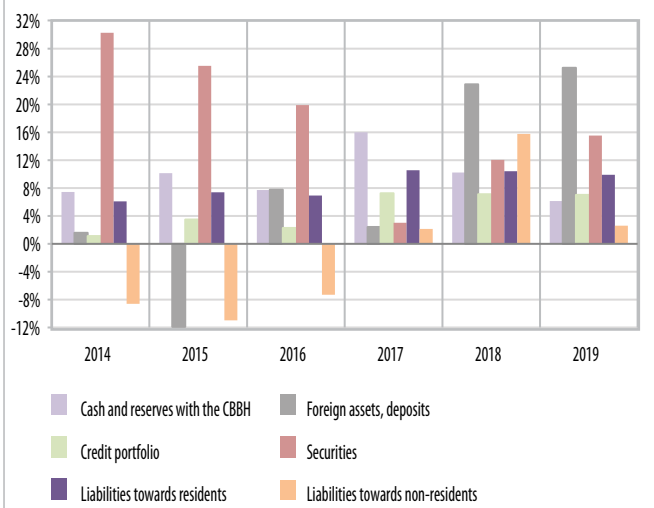
Graph 6.1: Assets and Loans in Per Cents of GDP



Source: FBA and BARS, BHAS, calculation by CBBH

As in previous years, the strong growth of deposits of domestic resident sectors, and the growth of the credit portfolio and liquid instruments marked the key movements in banks' balance sheets in 2019. Doing business in the context of low interest rates affected the adjustment of business models of the banks. In 2019, the credit activity of the banks was directed primarily to the household sector that maintained slightly higher interest rates, and to the private non-financing companies with noticeable increase in short-term loans for the economy. The growth of the securities portfolio was achieved to the greatest extent by increasing investments in entity securities. The strong growth of deposits of domestic resident sectors, mostly of shorter maturity, affected the growth of all liquid assets. Changes in business models of the banks changed to some extent the structure of liquid assets. Trying to minimize negative fee costs on the surplus funds above the required reserve, the banks redirected a portion of surplus liquid funds from the CBBH reserve account to foreign banks, and the trend of cash growth in bank vaults was also recorded. Liabilities to residents continued to record dynamic growth, and the increase in liabilities to non-residents was significantly lower than in the previous year (Graph 6.2).

Graph 6.2: Changes of the Most Important Items of Banking Sector Balance Sheet

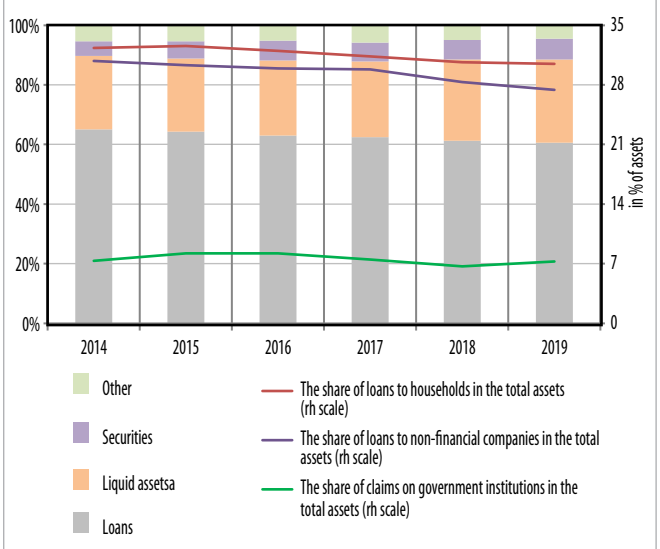


Source: FBA and BARS, calculation by CBBH

A moderate credit growth was recorded in 2019, 7% on annual basis, and the intensity of the credit activity was almost the same as in the previous year. During 2019, the banks recorded credit portfolio growth in the amount of KM 1.35 billion. In the structure of assets, the greatest growth of nominal amount was recorded in relation to total loans, with the share of loans in total assets continuing to decline in this year as well (Graph 6.3). The share of total loans in the banking sector's assets was 63.6%, i.e. 1.1 percentage points lower than in the previous year. Total loans at the end of the year amounted to KM 20.7 billion, while the share of KM 9.9 billion or 47.9% of total loans involved household loans, KM 8.9 billion or 43.1% on loans to private non-financial companies, and KM 843.3 million or 4.1% to loans to government institutions. In 2019, the credit activity in the non-financial corporate

sector slightly intensified compared to the previous year and achieved an annual credit growth rate of 5.3%. Despite this, the share of loans to non-financial companies in total assets continued to decline and it was 27.4% at the end of 2019, i.e. lower by 93 base points than in the previous year. Credit activity slightly increased in the resident sector and higher credit growth was recorded than in the previous year (8.5% on annual basis), but the share of these loans in total assets slightly reduced and amounted to 30.5%.

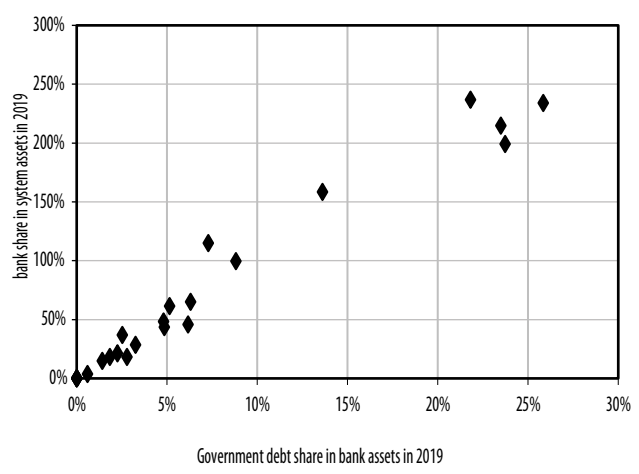
Graph 6.3: Banking Sector Assets



Source: FBA and BARS, calculation by CBBH

In 2019, the banking sector's exposure to the government sector increased again, but it was still moderate and not concentrated in a small number of banks. At the level of the overall banking sector, exposure to the government sector at the end of 2019 was KM 2.36 billion, i.e. higher by KM 364.4 million (18.3%) than in the previous year. The banks increased the exposure to the government sector in 2019, primarily by buying the entities' securities, and increase in loans to the government institutions was recorded, and share of the government's debt in total banking sector's assets reached 7.2% (Graph 6.3). The total exposure of the banking sector to the government sector at the end of 2019 was at the level of 66.6% of the regulatory capital of the banking system[20]. Graph 6.4 shows individual exposure of banks to all levels of government in BH, including extra-budgetary funds and social protection funds[21]. The Graph indicates that a number of banks were highly exposed to the government sector, relatively close to the maximum permissible exposure. In the context of low interest rates, the banks with volatile and relatively low return on average assets and capital, tried to stabilize their profit on the basis of increased financing of the government sector. Adapting business models of the banks based on the increased financing of the government sector strengthens the connection between the banking sector and the government sector. Although the risks from the fiscal sector in BH are relatively low, due to the negative consequences of the Coronavirus pandemic accumulated imbalance in the government sector can be expected, which increases vulnerability of these banks due to the considerable concentration of exposure to credit and market risk.

Graph 6.4: Exposure to Government Sector, by Banks, in 2019



Source: CBBH, calculation by CBBH

The liquid assets continued increasing in 2019 and recorder growth of 10.6% on annual basis, and the share of liquid assets in total assets reached the level of 29.3%. Within liquid assets, funds on deposit accounts with foreign banks recorded the highest increase of KM 514.3 million or 25.3% compared to the end of last year. The reserve account balance[22] recorded an increase of KM 238.2 million, or 4.3%, whereas the cash in vaults increased by KM 152.3 million, or 13.7% compared to the last year.

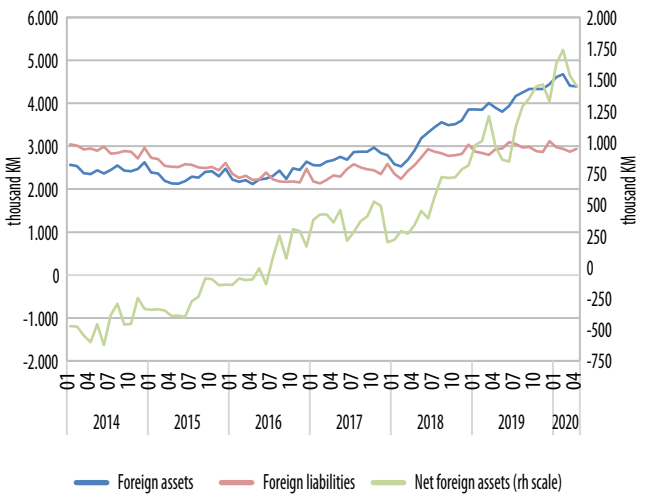
[20] Under domestic legislation, the maximum permissible exposure to the government is up to 300% of the regulatory capital.

[21] Data on individual exposure of banks were taken from the CBBH monetary and financial statistics. In accordance with the IMF methodology, the Entities' securities data include also securities of public companies.

[22] The data do not include the FBH Development Bank.

In 2019, moderate increase of liabilities to non-resident was recorded. According to the CBBH data, foreign liabilities of the banking sector recorded an increase compared to the end of last year amounting to KM 79 million, or 2.6% (Graph 6.5). The growth of foreign liabilities of the banking sector was largely driven by the growth of deposits and credit liabilities to other non-residents, whereas liabilities to the direct foreign investors remained at an approximately same level as in the previous year, and liabilities to sister companies decreased. At the same time, the commercial banks' assets in 2019 recorded a more dynamic growth compared to the foreign liabilities, due to which the net foreign assets continued to record positive values during 2019 as well. The multi-annual trend of banks' deleveraging towards majority foreign owners and their affiliates for the first time equalized foreign liabilities with foreign assets in mid-2016, and the banks became net lenders to non-residents.

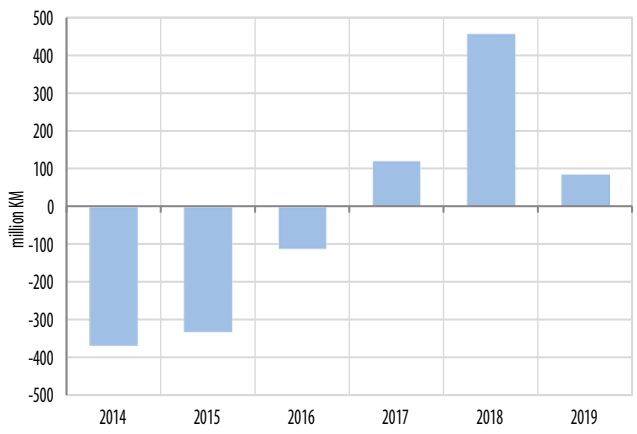
Graph 6.5: Foreign Assets and Liabilities of Commercial Banks



Source: CBBH

The banking sector in BH recorded in 2019 net inflows of KM 88 million (Graph 6.6). As already stated, the increase in foreign liabilities was achieved primarily from inflows from deposits from other non-residents. Such flows of foreign liabilities during the year, in which the liabilities to predominantly foreign owners remained stable, and liabilities to the related companies decreased by KM 99 million, i.e. 12%, indicate that the current credit activity structure is to the greatest extent financed from domestic sources. This claim is supported by increase in short-term lending for the economy in 2019, which in the context of low interest rates allows banks to adapt more promptly if changes in the market or rising interest rates occur. However, it needs to be noted that the domestic sources structure is still relatively unfavourable, and the existing level of long-term placements and deposits from non-residents contributes significantly to the sources stability.

Graph 6.6: Flows of Foreign Liabilities in the Banking Sector



Source: CBBH

Text box 5: Network analysis of the systemic risks spillover

The purpose of the network structure analysis in the BH banking sector is to estimate the intensity of potential shocks due to interconnection, as well as cross-border exposure of domestic commercial banks. The analysis was carried out on the basis of data as of December 31, 2019 in two directions: the analysis of mutual balance sheet exposures of 23 commercial banks, with the failure simulation for each of them, and the analysis of cross-border exposure of domestic commercial banks to the banking and public sectors of 36 countries.[23]

The analysis of network structure focuses on the credit risk, and the main assumption in terms of credit shock is the maximum loss on default, i.e. loss of the total amount of claims. As a condition for the existence of interbank contagion, we analysed the situation when losses exceed a portion of regulatory capital above the amount that meets the regulatory minimum of the capital adequacy ratio, which would lead to a decrease in the capital adequacy ratio of an individual bank below the minimum

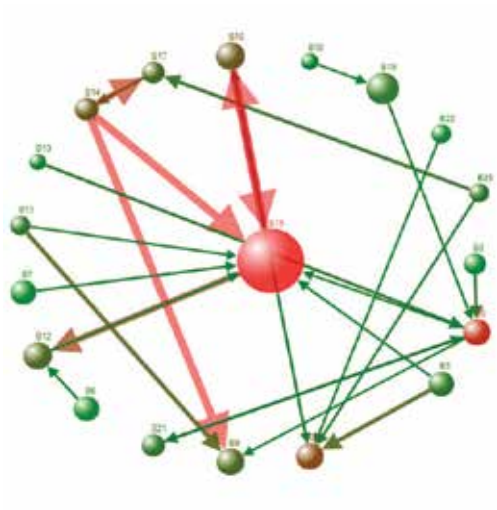
[23] The analysis does not include receivables and liabilities amounts of a commercial bank to some of the countries if they are less than 1% of total regulatory capital of the bank.

regulatory requirement of 12%. The basic finding of the analysis is the number of sub-capitalized banks due to the failure to meet the liabilities of individual banks or a particular foreign banking system. The bank is considered as sub-capitalized in case of a drop in the capital adequacy ratio below the minimum regulatory requirement.

Findings of the interbank exposure analysis indicate that system level exposures and risks of financial contagion on the domestic inter-banks market are not large, even with growth of the interbank exposure compared to the end of 2018. According to the banking agencies' data, total interbank exposures of commercial banks in BH, as of December 31, 2019, amounted to KM 107.3 million, i.e. increased by 14.6% compared to the end of 2018. The amount of total interbank exposure of commercial banks was 2.93% of total regulatory capital of the banking sector, i.e. only 0.33% of total assets.

The network of interbank exposures in the BH banking sector, shown in Graph TO5.1, is not extremely dense, since the Graph illustrates only the interbank liabilities and claims of banks on a particular day, whereas the average volume of overnight transactions between individual domestic banks could not be included in the analysis.

Graph TO5.1: Interbank Exposure Network, as of 31 December 2019



Source: FBA and BARS, calculation by CBBH

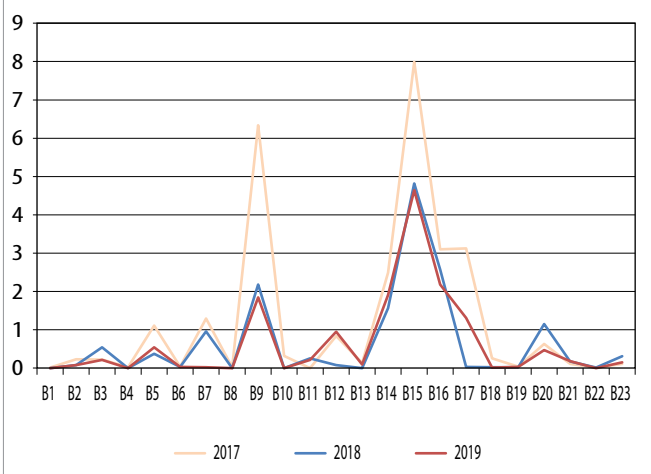
The size of the circles in the TO 5.1 Graph representing banks in the BH banking sector is determined by the amount of total assets. The amount of interbank exposures is illustrated by the thickness of the links, and by their colour, being in the spectrum from green to red. The thicker the bonds and the more intense the red, the greater are the bilateral claims and liabilities between banks. The colour of the circles indicates the number of a bank's links with other banks. It is also displayed in the spectrum from green to red. Banks marked with stronger red colour are linked to more banks in the domestic banking sector.

As in the case of the network analysis carried out a year earlier, the results of the network analysis conducted on the basis of data from the end of 2019 do not indicate greater threats to the capitalization of other banks, arising from interbank exposures. Due to the credit shock, under the assumption that the default of one bank would bring loss to another bank in the amount of 100% of its claims against the insolvent bank, no bank would suffer decline of the capital adequacy. The results of the analysis are not significantly different even if, in addition to the credit shock, the financing shock is included in the analysis. If the shock assumption is 50% loss of the exposure due to non-substitutable termination of funding, the findings of the analysis do not indicate that any of the banks would run into more serious problems and jeopardize its capitalization. In addition to the low interbank exposure, such favourable analysis results are influenced mostly by good capitalization of banks, which, compared to the end of 2018, was further improved in most banks in the sector. Furthermore, unlike the previous year when one bank did not meet the prescribed capital adequacy ratio, all the banks in the sector were adequately capitalized at the end of 2019.

The contagion index and vulnerability index indicate lower risks compared to the previous two years (Graphs TO 5.2 and TO 5.3) The contagion index[24] is lower with most banks compared to the end of 2017 and 2018, indicating lesser importance of individual banks for other banks in the sector, reducing the average loss rate of banks due to potential failure of one bank.

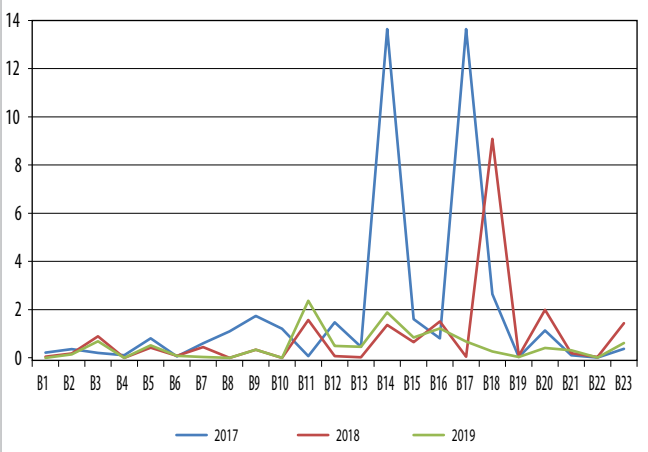
[24] Contagion index points out the significance of one bank for other banks in the sector, i.e. it shows the average percentage of other banks' loss in case of potential failure of this bank.

Graph TO5.2: Contagion Index by Individual Banks



Source: FBA and BARS, calculation by CBBH

Graph TO5.3: Vulnerability Index by Individual Banks



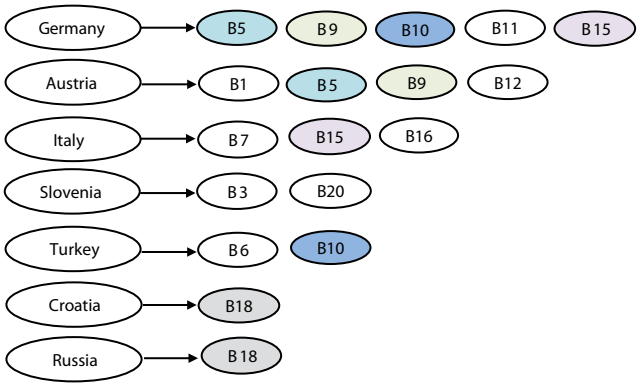
Source: FBA and BARS, calculation by CBBH

The vulnerability index[25] shows a much lower sensitivity of most banks in the sector in case of insolvency of other banks, compared to the end of 2018, and especially compared to the end of 2017. Three banks with an extremely high vulnerability index at the end of one of the previous two years significantly increased their capital bases, and with less exposure to other banks in the sector reduced their vulnerability to other banks. For several banks with a higher vulnerability index than at the end of the previous year, there was no significant increase in average loss percentage due to potential failure of all other banks in the sector.

In order to identify foreign banking systems of systemic importance for banks in BH, the network analysis of cross-border linkage was also carried out. As in the previous two years, the analysis included two shocks: the credit shock and the financing shock, and the assumptions are identical to those used in the interbank links analysis. The analysis of cross-border dependence showed that higher risk of contagion arises from the cross-border exposure than from the exposure to domestic interbank market. The results of the analysis indicate that major shocks in several countries according to which BH banks have significant exposures could have direct contagion effects on the BH banking sector, however, comparing the results of the analysis with the results from the previous two years, less exposure of the banks to cross-border shocks was recorded, with no indirect contagion effects. Potential big shocks in seven countries could be spilled over to one or more banks in BH. Risk spillovers from Germany, Austria and Italy pose a key risk of the cross-border financial contagion for banks in BH, whereas significant exposures of individual banks exist to Slovenia and Turkey as well. The analysis showed that five banks would have more significant exposure to two countries (Graph TO5.4). Unlike the network analysis carried out based on the data as of December 31, 2018, three banks did not show vulnerabilities to shocks from Austria, two banks did not show vulnerability to shocks from Germany, and one bank less recorded issues with capital due to shocks in Italy, Slovenia and Croatia. Furthermore, potential shocks in eight countries did not affect the bank that was undercapitalized in 2018.

[25] The vulnerability index shows how much the bank is vulnerable in the event of other banks failures, i.e., it is the average percentage of loss due to the failures of all other banks in the sector.

Graph TO5.4: Cross Border Spillover of Systemic Risks on Banks in BH

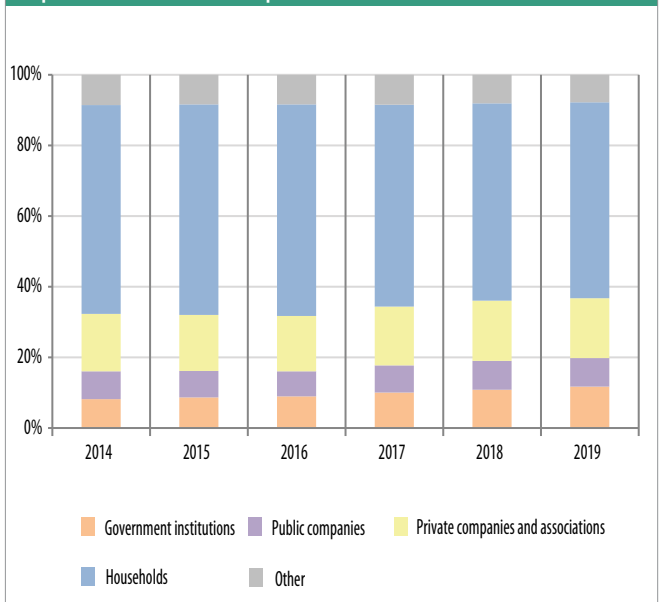


Source: CBBH, FBA, BARS, calculation by CBBH

Less vulnerability of banks arising from the interbank exposure, as well as less vulnerability to cross-border shocks and non-existing indirect contagion effects was primarily the result of better capitalization of the banks in 2019. Although the network analysis did not identify the risk of contagion spread through the system, but exclusively the risks due to the cross-border exposure for individual banks, which would not spill over to other banks, it should not be overlooked that several bigger banks in the sector are among those vulnerable to shocks from specific countries, primarily due to interlinkage with their mother bank and sister companies. Furthermore, when assessing the risk arising from the interbank and cross-border exposure in the following periods, the increase of risk in the country and abroad in 2020, due to the Coronavirus pandemic should be taken into account, due to which, depending on the intensity of the risk spillover from the real to the financial sector, increased pressures to capitalization of banks can be expected.

In 2019, the dynamic growth of deposits of the domestic resident sectors continued. Total deposits at the end of the year amounted to KM 23.83 billion and compared to the end of 2018 they increased by 9.8%. In the structure of total deposits, the most significant were the household deposits, which at the end of the year amounted to KM 13.2 billion and recorded growth of KM 1.1 billion, or 9.1%. In addition to the increase in household deposits, increase in deposits from government institutions and private companies is also evident, which increased their share in total deposits this year as well (Graph 6.7). According to the CBBH data, at the end of 2019, the deposits on transaction accounts and sight deposits accounted for 30.4% and 26.4%, respectively, of total household deposits. At the same time, the share of long-term deposits in total household deposits continued to decrease, from 41.5% at the end of the previous year to 39.5% at the end of 2019. Household deposits continued their multi-year upward trend mainly due to the increase in deposits on transaction accounts (KM 604.6 million or 17.7%) and sight deposits (KM 274.9 million or 8.5%), but unlike the previous years in which the level of term deposits was almost unchanged, increase in this category was also recorded. Shallow financial market and low presence of institutional investors still do not allow alternative form of investment for majority of population, due to which the term deposits started increasing after several years, despite the decrease of deposit facility rates that continued in 2019. Therefore, at the end of the year, the long-term time deposits of the population amounted to KM 5.23 billion and increased by KM 179.7 million, or 3.6% on annual basis.

Graph 6.7: Sector Structure of Deposits

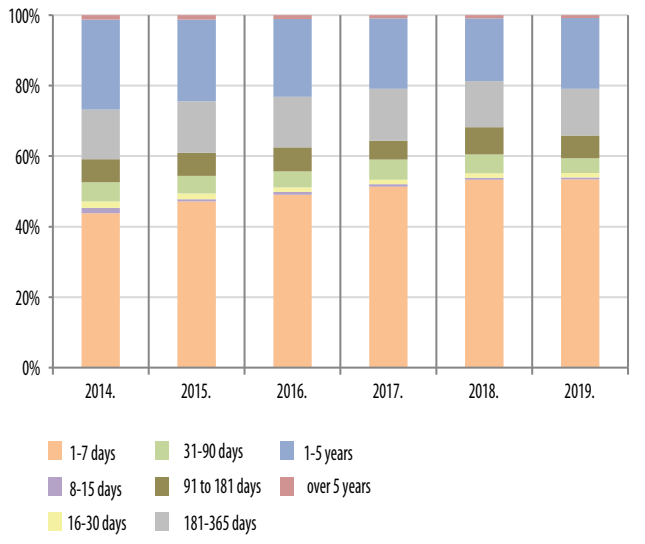


Source: FBA and BARS, calculation by CBBH

Due to the growth of term deposits in 2019, the residual maturity of total liabilities of the banking sector slightly improved compared to the previous year. As a result of the dynamic growth of deposits on transaction accounts, the deposits with maturity of 1-7 days continued to increase for the seventh consecutive year and at the end of 2019 made up 53.4% of total deposits. At the same time, the share of deposits with maturity of 1-5 years increased from 17.9%, at the end of the previous year, to 20% at the end of 2019, which primarily contributed to the improvement of the maturity structure of deposits (Graph 6.8). Based on end-2019 data, the deposits with residual maturity of less than one year accounted for 79.2% of total deposits, and the share of

these liabilities in total liabilities was lower by 2.1 percentage points than in the previous year. Although the maturity structure of deposits slightly improved, the risk of short-term sources being transformed into long-term placements is still present. Unfavourable structure of sources of funding may be a limiting factor for future credit growth, particularly under current circumstances of strong economic activity contraction caused by the Coronavirus pandemic, where the recovery of economic activity and economic growth will require the support of long-term loans to the economy.

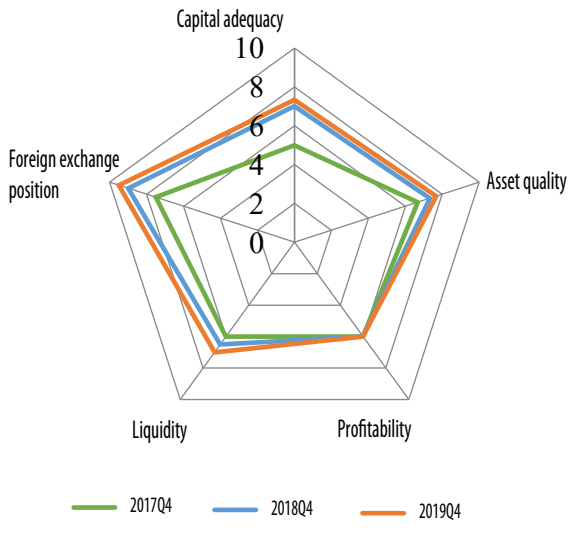
Graph 6.8: The Total Deposit Structure by the Remaining Maturity



Source: FBA and BARS, calculation by CBBH

The banking sector stability assessment is summarized in the financial soundness indicators graph that illustrates changes in main indicators, used as the basis for evaluating capital adequacy, asset quality, profitability, liquidity and foreign exchange risk in the banking sector. The graph shows ratings for the last year and their values for the period they are compared to, i.e. for the previous two years. Based on the financial soundness indicators graph it can be concluded that the banking sector in BH is stable, and in 2019, its resilience to risks increased (Graph 6.9). The overall assessment of the financial stability indicators of the banking sector was satisfactory, and the improvement of indicators was recorded in all segments, with the exception of the profitability segment, where the assessment remained at the same level as in the previous year. In 2019, the banks improved their capitalization by increasing the equity and regulatory capital, increasing the absorbing capacity for potential shocks, which will contribute to maintaining the stability of the banking sector in BH under the new circumstances of the Coronavirus pandemic and its negative consequences on the overall economy. Asset quality indicators continued the 5-year trend of improvement at the system level, and more substantial improvement of the credit portfolio quality, present in almost all banks in the last 2 year, improved the rating in this segment. Profitability indicators recorded only modest improvement compared to the previous year, due to which the profitability rating remained unchanged. High ratings in the liquidity segment, particularly in the exchange position, indicate that the banking sector is still highly liquid, and the foreign exchange risk is minimal due to the currency board arrangements. Thanks to the continuous decrease in the share of indexed and foreign currency loans in total loans, there was an increase in the rating in the foreign exchange position segment.

Graph 6.9: Chart of the Banking Sector Financial Soundness Indicators



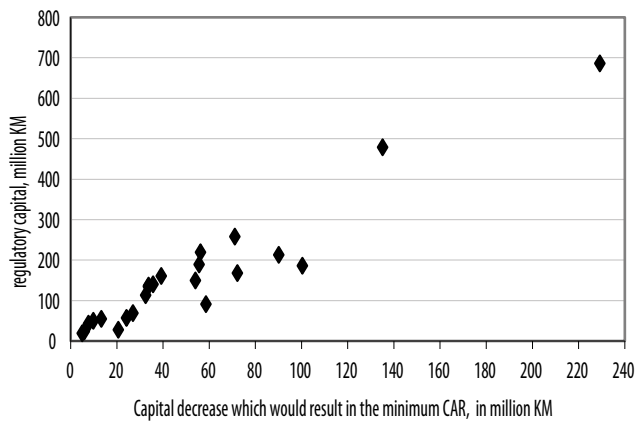
Source: CBBH, calculation by CBBH

Stability estimate for each variable is based on simplified standardization of several indicators representing the base for quantification of syntetic estimate of a degree of stability of various segments of banking sector operations. For comparability of indicators,they need to be transformed first, i.e. standardized, and then, depending on the obtained value of z-score, each indicator is assigned a grade according to relative position compared to its empiric distribution. The increase of distance to the centre of the chart for each variable, i.e. higher grade, indicates the increased stability in the system, while grades closer to the centre warn of the increase of risk or decrease of banking sector resilience and accordingly stronger threat to stability.

The banking sector of BH was adequately capitalized at the end of 2019, and all the banks in the system meet the prescribed regulatory requirements on capital adequacy and financial leverage ratio.[26] With respect to the total risk exposure, the equity and the regulatory capital amounted to 17.5% and 18%, respectively, at the end of 2019, whilst the financial leverage ratio at the banking sector level was 10.51%. The equity and regulatory capital recorded increase of KM 397.7 and KM 308.4 million, i.e. 12.6% and 9.2% compared to the end of the previous year. The largest positive impact on the amount of equity and regulatory capital was made by the previous year's profit distribution to equity, the transfer of credit loss reserves formed from profit to equity, and the recapitalization carried out by three banks in 2019. Total amount of the risk exposure amounts to KM 20.4 billion. Of the total risk exposure, the credit risk weighted exposures account for KM 17.63 billion or 86.6% of the total risk exposure, the market risk exposures account for KM 372.1 million or 1.8% of the total risk exposure, and the operational risk exposures account for KM 2.34 billion or 11.8% of the total risk exposure.

All banks in the system are adequately capitalized, having in mind that in the case of several small banks, a relatively small reduction in regulatory capital would jeopardize their adherence to the prescribed level of capital adequacy (Graph 6.10).[27] In the worsened macroeconomic circumstances caused by the Coronavirus pandemic, pressures on the banking sector capitalization are expected, which could in the upcoming period threaten business operations of the banks with significantly worse capital position compared to the rest of the system. On the other hand, the Graph indicates that most banks with unchanged levels of risky assets, could endure a significant decrease in the regulatory capital before their CAR is lowered to the regulatory minimum.

Graph 6.10: The Effect of Regulatory Capital Decrease on CAR, Q4 2019



Source: FBA and BARS, calculation by CBBH

In 2019, all asset quality indicators continued the five-year trend of improvement at the level of the system, with a more significant improvement in the quality of the loan portfolio present in almost all banks in the last two years. The share of non-performing assets in total assets at the end of 2019 was 5.3%, i.e. a decrease of 1 percentage point compared to the end of the previous year. The decrease in non-performing assets was largely the result of the continuation of permanent write-offs of assets estimated as loss and sale of non-performing loans. In 2019, the banks wrote off KM 110.9 million of assets and KM 14 million of interest rates estimated as losses. The largest portion of non-performing assets involved non-performing receivables, which recorded a decrease of KM 162.4 million (9.6%) in 2019. With the continuing write-off of non-performing loans, mild economic growth recorded in 2019, and still favourable funding conditions reflected in the downward trend in interest rates can partly be attributed to the recovery of non-performing loans. According to the CRC data, KM 15.5 million of household loans and KM 4.5 million of corporate loans in 2019 turned from non-performing to performing loans.

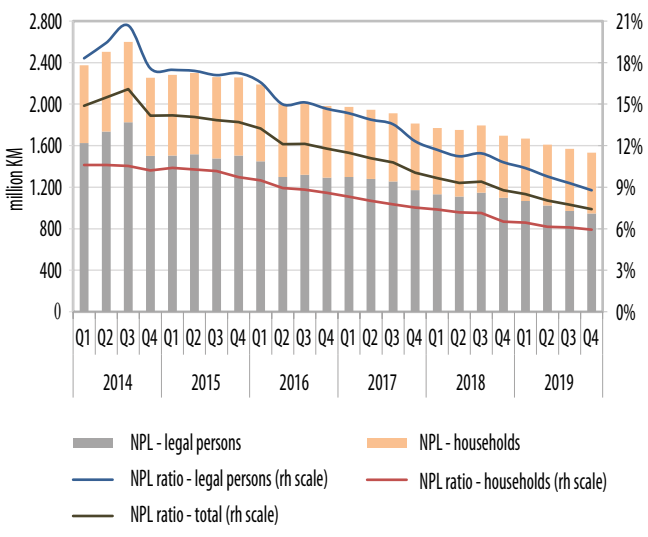
[26] Decision on the calculation of bank capital (Official Gazette of the FBH, No. 81/17 and Official Gazette of the RS, No. 74/17) prescribes the calculation methodology and the regulatory framework for monitoring the amount of leverage. The banks need to ensure and maintain the financial leverage ratio, as the equity and total exposure measure ratio amounting to minimum of 6%. Total exposure represents value of the total exposure of assets of the balance positions reduced for corrections of value and off-balance sheet items reduced by credit loss reserves which conversion factors are applied to in accordance with the risk level the off-balance sheet items are exposed to.

[27] The Graph shows how much the regulatory capital for each individual bank should be reduced, with total risk weighted at the end of 2019, to bring the capital adequacy ratio down to the regulatory minimum of 12%.

The share of non-performing loans in total loans at the end of 2019 was 7.41% and recorded a decrease of 1.36 percentage points compared to the previous year. In addition to the decline in non-performing loans, the increase in credit activity in 2019 had the biggest positive effect on the asset quality indicators. Total loans increased by KM 1.35 billion (7%). The average coverage of NPLs at the end of 2019 at the banking sector level was 77%, and was slightly lower compared to the previous year.

The trend of reduction of non-performing loans in the sectors of non-financial companies and households continued in 2019 as well. In the company sector, the share of non-performing loans in total loans was 8.8%, down by 2 percentage points compared to the previous year, while this share in the sector of households stood at 5.9%, down by 59 bp (Graph 6.11).

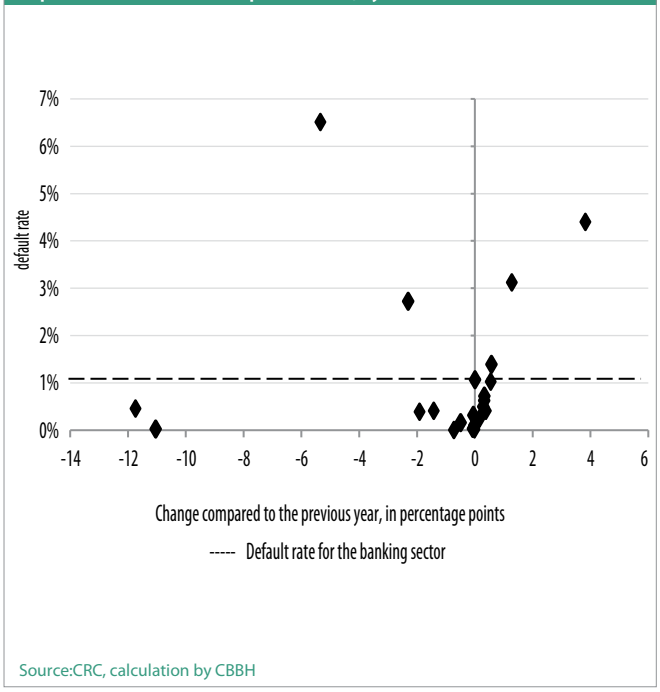
Graph 6.11: Credit Portfolio Quality



Source: FBA and BARS, calculation by CBBH

This improvement of the loan portfolio quality, i.e. weakening of credit risk in the segment of business entities, coupled with a reduction of non-performing loans, was also attested by a lower rate of *default* posted in 2019. At the banking sector level, this *default* rate in the sector of companies was 1.01, which is 75 bp lower vs. the year before. An analysis of the *default* rate by banks has shown that most banks in the system have seen a weakening trend of the credit risk or that credit risk remained nearly the same as last year (Graph 6.12.). Among several banks with higher *default* rates compared to the system's average are two banks holding the highest share of non-performing loans in total loans. Although these banks have posted lower *default* rate compared to the previous year, the intensity of loan quality deterioration in the company sector is still stronger than the banking system's average.

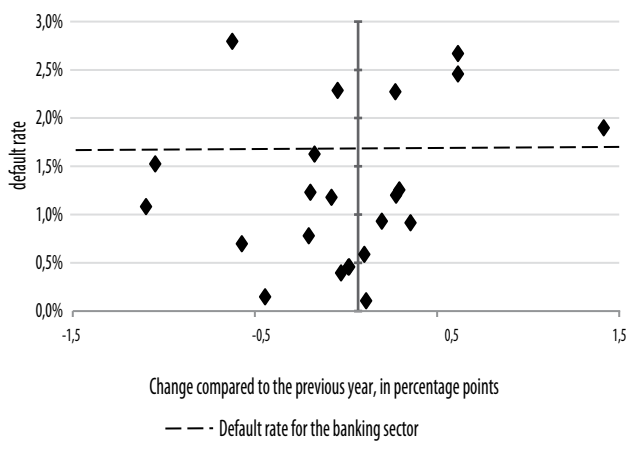
Graph 6.12: Default Rate in Corporate Sector, by Banks in 2019



Source:CRC, calculation by CBBH

In the household sector, the trend of reduction of non-performing loans continued also in 2019, but, unlike in the company sector, this sector saw a rise in the default rate. The household sector's *default* rate in 2019 stood at 1.62%, up by 28 bp against the year before. The default rate increase in the household sector was mostly impacted by three banks with the largest share in total assets that posted stronger intensity of reclassification into non-performing loans in 2019 (Graph 6.13). Still, on the positive side, it should be noted that 13 banks recognized lower default rate than the year before. This means that banks with the highest share of non-performing loans in total loans are not to be found among banks posting stronger intensity of deterioration of the loan portfolio quality in the household sector in 2019.

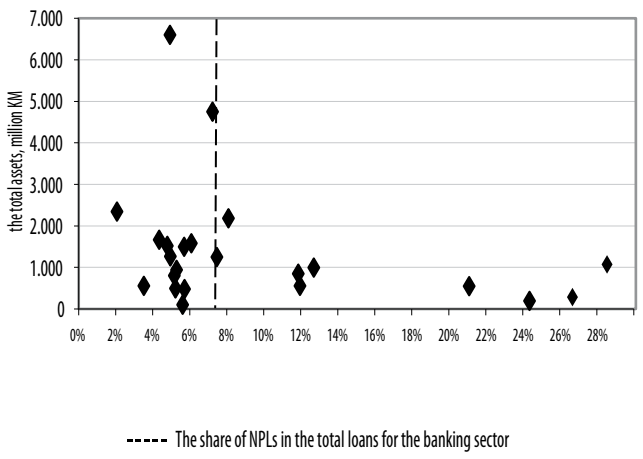
Graph 6.13: Default Rate in Household Sector, by Banks in 2019



Source: CRC, calculation by CBBH

In 2019, the credit risk has weakened, i.e. the share of non-performing loans in total loans has dropped in almost all banks, but it is still pronounced in several small banks in the system (Graph 6.14). Taking into account the significant worsening of macroeconomic conditions and strong contraction of economic activity expected in 2020 as a result of the Coronavirus pandemic, an increase of credit risk is quite certain to be seen in all banks. This particularly refers to those banks that, in addition to pronounced credit risk, also display weak capital positions.

Graph 6.14: The Share of Non-performing in the Total Loans by Banks at 2019 End

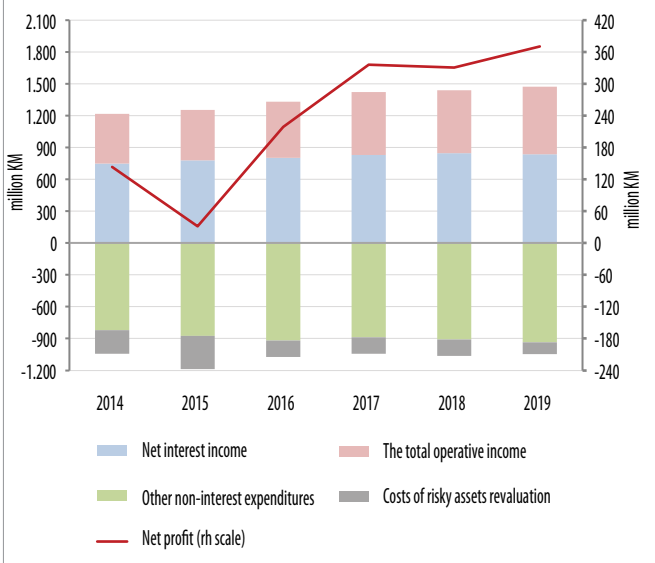


Source: FBA and BARS, calculation by CBBH

An interest rate risk exposure of the sectors of non-financial companies and households in 2019 is higher than the year before, thus increasing banks' exposure to indirect, i.e. interest-induced credit risk possibly occurring if interest rate risk materializes in these two sectors. Information on newly approved loans to the household sector and sector of non-financial companies show that 2019 was marked by an increase of newly approved facilities with variable interest rates in both of these sectors. Looking into total newly approved facilities in 2019, we see that 59.9% was approved at a variable interest rate, i.e. the initial period of interest rate fixation was up to 1 year. At the end of 2019, the share of loans with variable interest rate in total newly approved loans to households was 54.1%, up by 23 bp against the previous year. At the same time, banks have considerably increased facilities to non-financial companies bearing also this variable interest rate, i.e. facilities having the initial period of interest rate fixation of up to 1 year (5.3%), so the share of these loans in total newly approved loans was 65.3% at the end of 2019. Although in 2019 there was a slight increase of newly approved facilities with variable interest rate in the household sector, a trend seen across several previous years is reduction of these loans thus indicating that customers exercise greater caution when it comes to assuming interest rate risk. In 2019, the increased lending rate towards the sector of non-financial companies that entails variable interest rate has shown that, in this situation of extremely low interest rates and while waiting to see some interest rate increase, banks are trying to adjust their business models to these market conditions. So, on one side, banks are trying to mitigate risks to their profitability and, on the other, the increased exposure of non-financial companies and households to the interest rate risk in 2019 has indirectly elevated chances of transformation of the interest rate risk into credit risk in the banking sector.

At the end of 2019, the BH banking sector has posted a record high profit and achieved greater return on average assets and average equity compared to the year before. The banking sector's net profit in 2019 stood at KM 370.5 million, up by KM 40.1 million or 12.1% against the end of the previous year. The profit growth in the banking sector comes from the total revenues climb, i.e. higher value of operative income coupled with a reduction of non-interest expenditures caused by lower costs of risky assets revaluation (Graph 6.15).

Graph 6.15: Banking Sector Profit



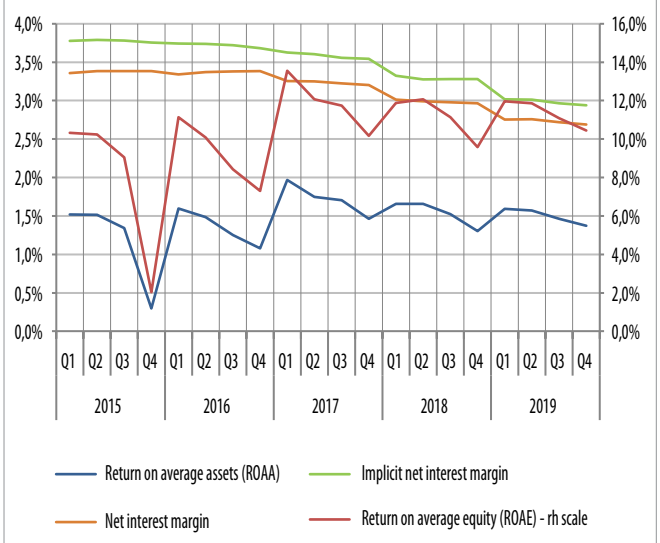
Source: FBA and BARS, calculation by CBBH

A key impact to the interest income trend in banks still comes from interest rates, whereas they continued with a downward direction in 2019. Despite the credit growth of 7% seen in 2019, interest income still posted a descending trend, this being the case for the eight year in a row now. Total interest income at the end of 2019 stood at KM 1,029 million, which is by KM 13.6 million or 1.3% lower than at the end of the previous year. As dominantly affected by the trend, i.e. reduction of interest rates on loans approved to households and non-financial companies, income generated from loans went down by KM 14.9 million (1.6%). At the same time, an increase of income from loans approved to other banks of KM 1.6 million and an increase of income from deposits banks hold with other deposit institutions of KM 1.2 million have mitigated the interest income decrease. On the other hand, financing terms for banks are still favourable, thus greatly contributing to the interest expenditures reduction at the banking sector level. In 2019, total interest expenditures and other similar expenses amounted to KM 193.2 million, down by KM 6.4 million or 4.3% vs. the same period last year. However, unlike previous periods when banks managed to fully compensate this drop in interest income against the interest expenditures decrease, the effect of interest expenditures reduction has weakened. It is for this reason that, for the first time in five years, we are seeing a net interest income reduction of KM 10.2 million or 1.2% compared to the previous years.

At the same time, banks have continued to post a dynamic growth of operative income from fees and commissions, thus resulting in the net profit increase. At the end of 2019, total operative income was reported at the level of KM 635.8 million, up by KM 43.9 million or 7.4% compared to the same period of the previous year. This led the share of operative income in total revenues of the banking sector up by 2 percentage points, thus reaching the value of 43.2%.

The trend of ROAA and ROAE shows that the BH banking sector generated stable return on average assets and equity in 2019, despite the reduction of net interest income and net interest margin (Graph 6.16)[28]. The generated return of average assets and return on average equity rose slightly in 2019 due to a more substantial increase of profit compared to the increase of average assets and average equity over the observed period.

Graph 6.16: Profitability Indicators



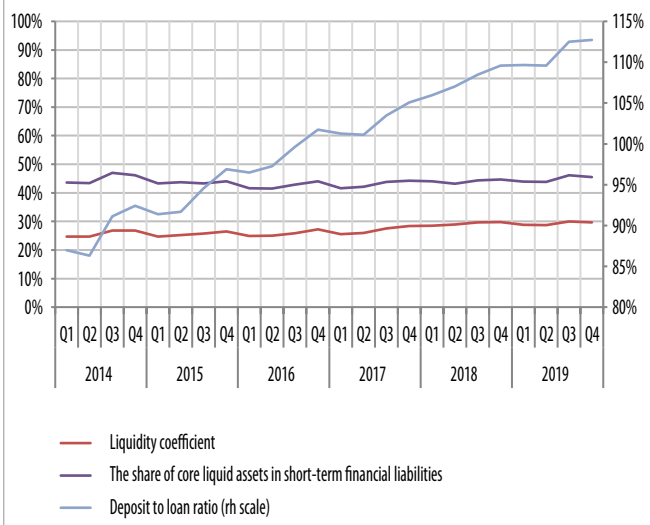
Source: FBA and BARS, calculation by CBBH

Liquidity of the banking sector in BH remained high during 2019, as being chiefly attributable to the continuous trend of deposit increase (Graph 6.17). At the end of 2019, liquid assets accounted for 29.6% of the banking sector assets, while 45.5% of short-term liabilities were covered by liquid assets. The liquidity coverage ratio (LCR), representing a ratio between a liquidity buffer and total net liquid outflows (during 30 calendar days of the stress period) stood at 242.5% at the banking sector level. At the end of 2019, all banks met the

[28] Implicit net inteest margin is a ratio of net interest income and average interest-bearing assets. At the end of the 4th quarter, the average interest-bearing assets were calculated as an average of interest-bearing assets at the end of the 4th quarter of the previous year and the fourth quarter of the current year.

LCR requirements and most of them even went considerably above the regulatory minimum[29]. This high indicator value at the system level shows that banks hold significant liquidity buffers, thus contributing to preservation of their business stability under worsened macroeconomic conditions caused by the Coronavirus pandemic.

Graph 6.17: Liquidity Indicators



Source: FBA and BARS, calculation by CBBH

Text Box 6: Stress tests

Thanks to a sound starting position reflected in the 2019 data attesting to a healthy banking sector with improved indicators of capitalization, assets quality and profitability compared to 2018, the banking sector managed to maintain its stability even under presumed shocks contained in the stress test. The baseline scenario includes a shock in form of a strong decrease of economic activity in 2020 caused by the COVID-19 pandemic, where the banking sector would not suffer any major capitalization decrease and would remain adequately capitalized. The stress test results show that the sector-level capitalization would be kept above the regulatory minimum of 12% even in the more severe extreme scenario entailing major additional deterioration of macroeconomic conditions in the country and abroad.

CBBH conducts top-down stress tests for the country's banking sector on quarterly basis, which are among the main tools for assessing its resilience to potential shocks from the macroeconomic environment and the banking sector. Stress tests assess the ability of both, the entire banking sector and individual banks to absorb the potential losses that would arise in the event of assumed shocks materialisation.

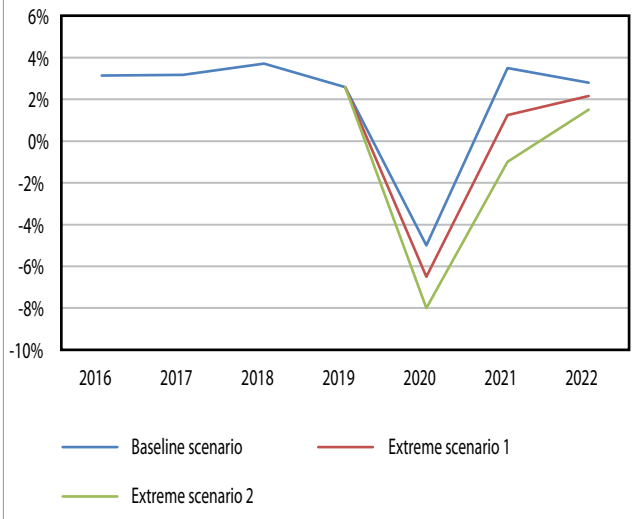
To assess the solvency of the banking sector, three different macroeconomic scenarios were considered – one baseline and two extreme scenarios. Each scenario includes projections of a large number of macroeconomic and financial variables for the period 2020-2022. The scenarios and assumptions for stress testing being performed on basis of 2019 data have been established in the context of the latest conditions in the macroeconomic environment being determined by the COVID -19 pandemic, as well as expected implications for the banking sector in BH.

The baseline scenario is based on the IMF's projections of trends in the major macroeconomic indicators, the ECB's and the OECD's projections of trends in the European financial markets and the CBBH's assumptions about relevant indicators' trends in the BH economy, based on continuous monitoring of trends. A stress test includes two extreme scenarios differing by shock intensity and a time required for a recovery of economic activity. What is specific about this stress testing is that shock is also contained in the baseline scenario since 2020 will evidently be marked by a major slowdown of economic activity both globally and in BH.

Scenarios quantification includes projections of macroeconomic and financial variables – such as the real GDP, inflation, interest rates in the euro area, long term interest rates on loans to households and companies, real estate prices and credit growth. The effect of interbank contagion risk was implemented in the stress test framework, which is based on a network analysis of the systemic risk spillovers in the BH banking sector. The effects of this risk are assessed at the end of the third year of the stress test, and since the interbank exposures are not significant, these effects are extremely weak and would have almost no impact on the capital adequacy ratio at the banking sector level. The graphs from TO6.1 to TO6.6 show basic projections and assumptions used in the stress test scenarios.

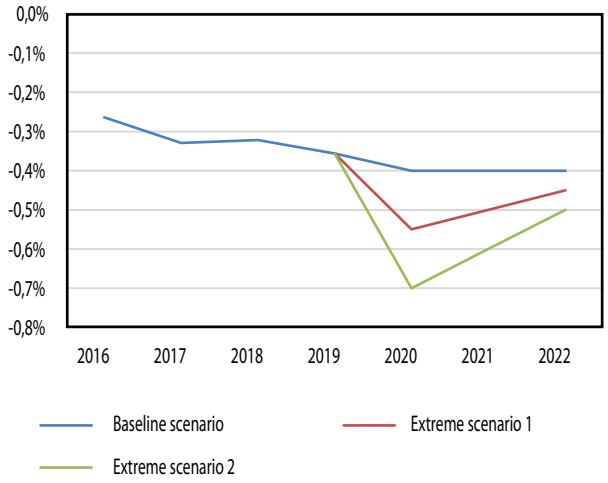
[29] According to the Decision on Liquidity Risk Management in Banks (FBH Official Gazette No. 81/17) and the Decision on Liquidity Risk Management (RS Official Gazette No. 04/18), the minimum LCR is 100%.

Graph TO6.1: Real GDP Growth



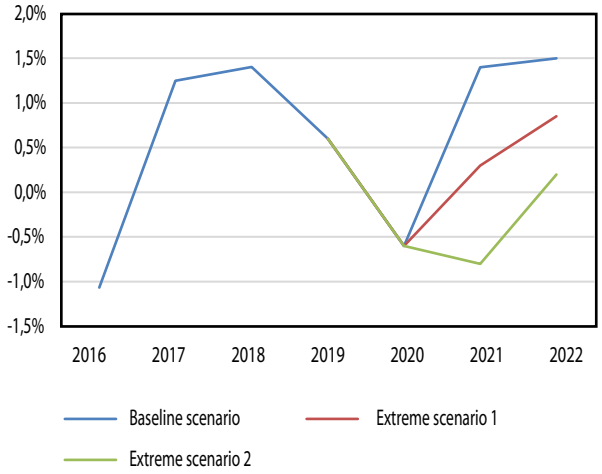
Source: CBBH

Graph TO6.3: 3M Euribor



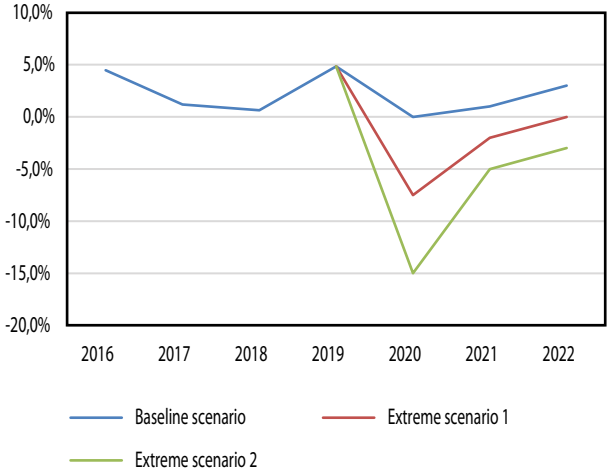
Source: CBBH

Graph TO6.2: Inflation Rate



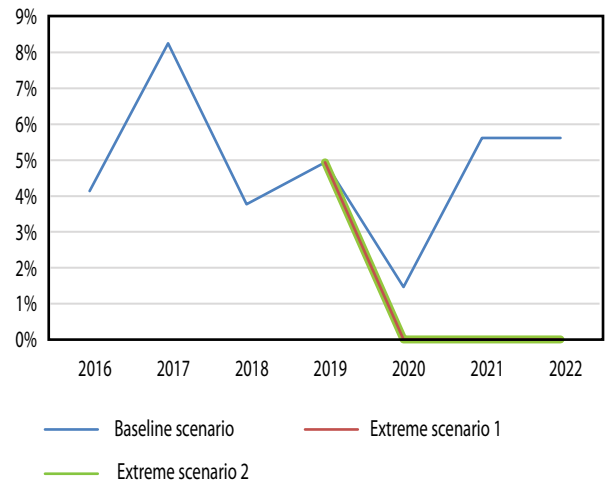
Source: CBBH

Graph TO6.4: Real Estate Price Growth



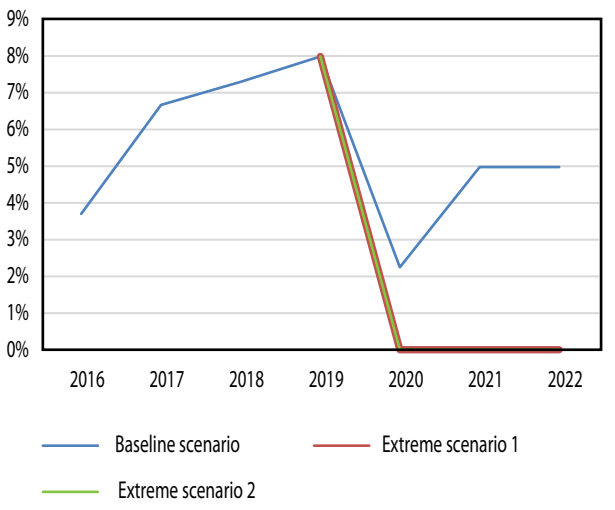
Source: CBBH

Graph TO6.5: Credit Growth, Companies



Source: CBBH

Graph TO6.6: Credit Growth, Households

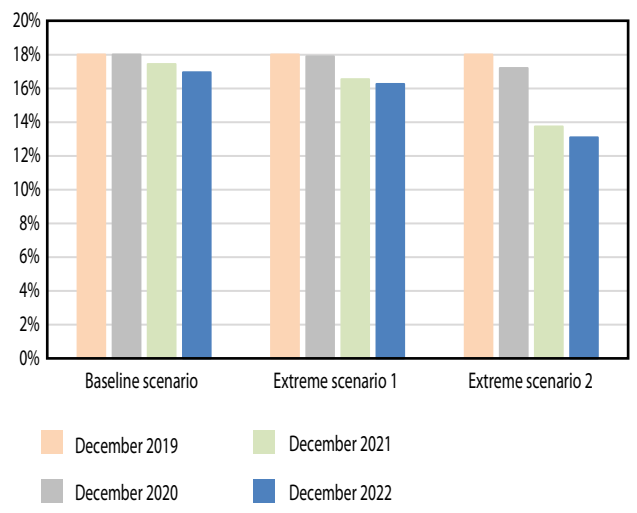


Source: CBBH

The impact of stress tests on the capital adequacy ratio was quantified based on the initial balance as of December 31, 2019. In the baseline scenario containing a shock of major slowdown of economic activity in 2020, the banking sector would not suffer a major reduction of capitalization or a deterioration of other indicators. If observed by individual banks and assuming that banks would not have an additional capitalization option, there would be two small banks that would not be able to maintain the capital adequacy ratio within the prescribed regulatory grids during the third year of the baseline scenario. Thus, they would show a need for additional capital in a total amount of KM 2.5 million. A share of assets of these banks in the total assets of the banking sector (based on data at the end of 2019) is at mere 2.3%, thus confirming that, under present shock situation caused by the COVID-19 pandemic, no systemic risks for the BH banking sector have been identified.

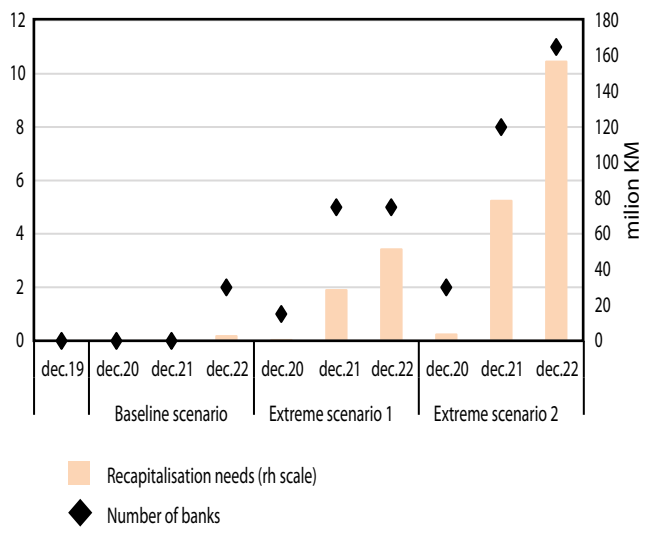
In the event of materialisation of shocks assumed under extreme scenarios and despite effects related to capitalization of the banking sector and other financial soundness indicators being much stronger compared to the effects expected under the baseline scenario, the banking sector would, primarily due to the existing sound capital base, be capable of absorbing the assumed shocks. Under the Extreme scenario 1, the aggregate level capital adequacy ratio would decrease from the initial 18.0% to 16.3% (Graph TO6.7). In this scenario, a total of five banks would find their capital adequacy ratio below the regulatory minimum as early as at the end of the second testing period. The total capital required to return the capital adequacy ratios of these banks to the regulatory minimum of 12% in 2022 would be KM 51.3 million. In the Extreme scenario 2, the capital adequacy ratio at the aggregate level would drop to 13.1% and a total of eleven banks would not meet the minimum required capital adequacy ratio. Total recapitalization needs in this scenario are KM 156.8 million, thus representing 0.4% of the gross domestic product in 2019 (Graph TO6.8). Despite such strong shocks assumed in stress tests, the banking system as a whole would maintain stability.

Graph TO6.7: Banking Sector Capital Adequacy Rate



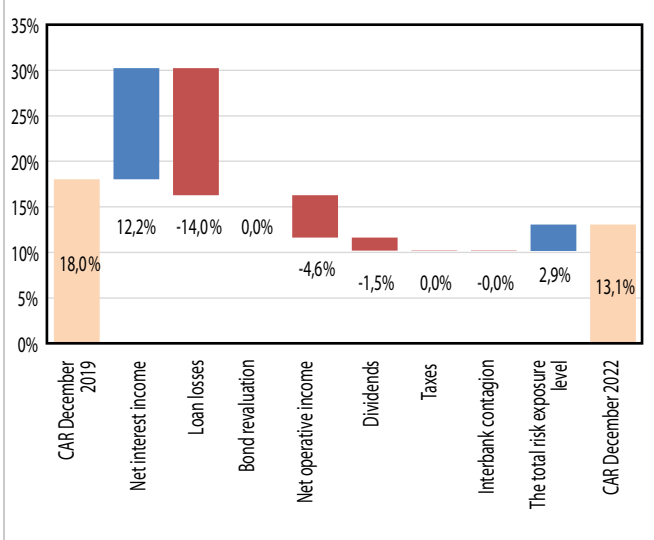
Source: CBBH

Graph TO6.8: The Number of Banks with Insufficient Capital and Recapitalisation Needs



Source: CBBiH

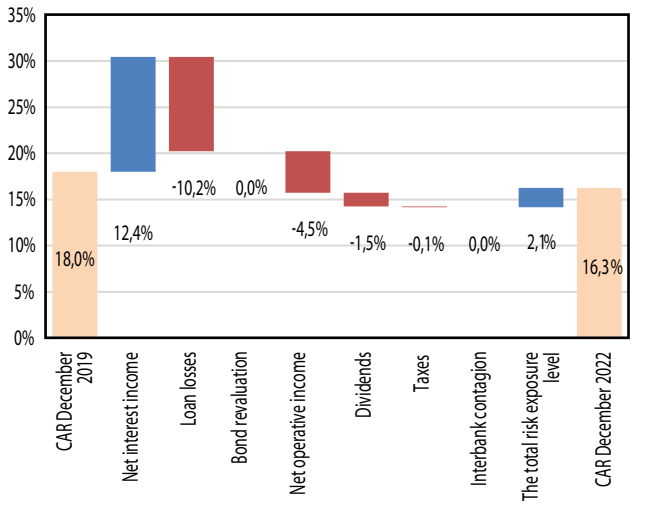
Graph TO6.10: Impact of Individual Positions on Capital Adequacy Rate, Extreme Scenario 2



Source: CBBiH

Graphs TO6.9 and TO6.10 show the contribution of individual balance sheet and income statement items to the change of the aggregate capital adequacy ratio, cumulatively, in extreme scenarios, from the end of 2019 to the end of 2022.

Graph TO6.9: Impact of Individual Positions on Capital Adequacy Rate, Extreme Scenario 1

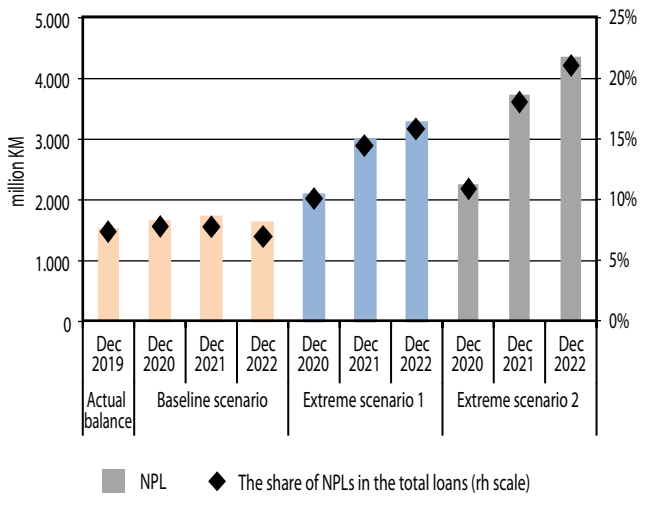


Source: CBBiH

As also shown in stress tests, credit risk is the most significant risk in the BH banking sector. The results of stress tests indicate that the quality of the loan portfolio is very sensitive to the changes of macroeconomic conditions. The drop in the capital adequacy ratio over the three-year period is dominated by losses related to increase in provisions due to the deterioration of the loan portfolio quality.

The basic measure of credit risk is an indicator of the share of non-performing loans in total loans. In the Baseline scenario, the assets quality indicators would be somewhat weaker over the first two years due to worsened macroeconomic conditions, but the projected economic recovery would reflect positively upon the loan portfolio quality during the third year of the stress testing, thus finally leading the share of non-performing loans in total loans to be lower by 40 basis points at the end of 2022 compared to the end of 2019. In extreme scenarios, there will be a significant increase in the level of non-performing loans, as well as in their share in total loans, both in the corporate and household sectors. Therein, loans in the corporate sector are still of lower quality than the loans approved to households, hence they are more sensitive in relation to the impact of assumed shocks. Consequently, banks will need to significantly increase their credit risk provisions, which will affect their profitability. Graphs TO6.11 through TO6.13 show the loan portfolio quality by years and scenarios.

Graph TO6.11: Non-performing Loans and the Share of Non-performing in the Total Loans

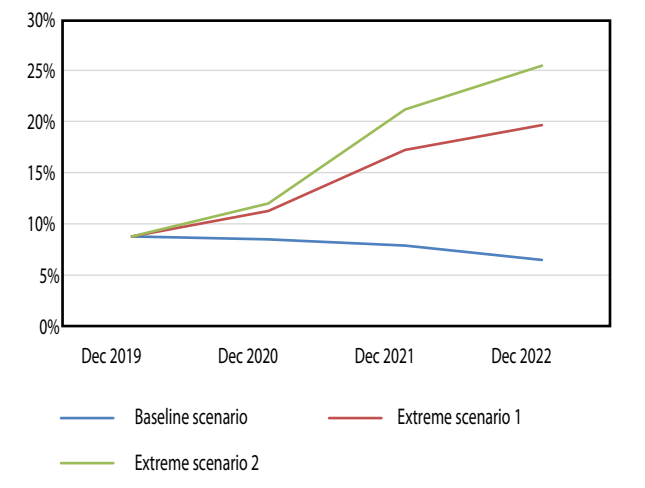


Source: CBBH

income and the balance sheet total compared to the previous year (Table 6.1).

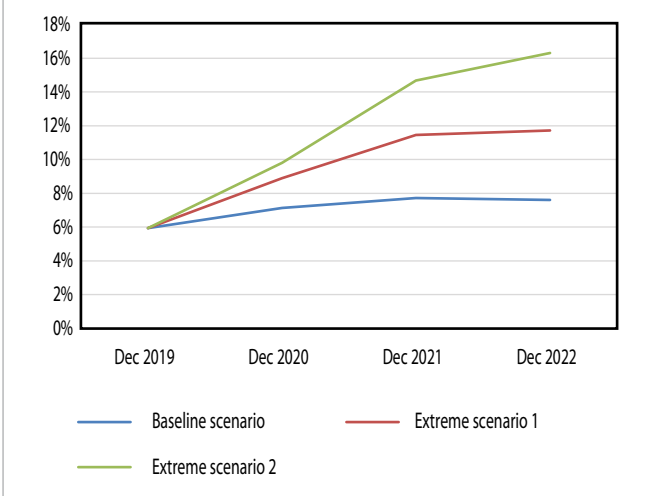
In 2019, the total assets growth continued, and the microcredit sector profitability increased. At the end of 2019, 27 microcredit organizations (MCOs) operated in BH, of which 13 microcredit foundations (MCFs) and 14 microcredit companies (MCCs). During 2019, three new microcredit companies were established, while one microcredit foundation got its operating licence revoked. Total assets of the microcredit sector at the end of 2019 increased by KM 103.6 million or 11.67% compared to 2018, while loans recorded an increase of KM 94.4 million or 13.29% (Table 6.2). The growth of credit activity was recorded in most MCOs, but some smaller MCOs continued to face a lack of funding sources, thus posting a contraction in the balance sheet total. Out of the total amount of microcredits, 97.7% was disbursed to natural persons, majority of which was approved

Graph TO6.12: The Share of Non-Performing in the Total Corporate Loans



Source: CBBH

Graph TO6.13: The Share of Non-performing in the Total Household Loans



Source: CBBH

6.2. Non-banking financial sector

In 2019, the non-banking financial sector recorded similar business trends as in the previous year. Assets of this sector continued to record an increase, but their share in the total assets of financial intermediaries still moved along a downward path for the fifth year in a row, thus being at 11.3% at the end of 2019. The largest and most significant segment of the non-banking financial sector are insurance and re-insurance companies, which at the end of 2019 recorded a modest increase in premium

for financing the agricultural sector (31.7%). Microcredits to natural persons account for 16.6% of placements for service activities, followed by housing loans (16.3%).

In the MCO sector in 2019, there were no significant changes in the level of risk portfolio, and owing to the significant growth of credit placements, the share of the risk portfolio in the overall portfolio was lower than the year before. Of the total loan portfolio, 2.39% or KM 19.2 million of loans recorded a delay in repayment, while loan loss provision rate at the sector

Table 6.2: Simplified Balance Sheet of Microcredit Organisations million KM

Assets	2018	2019	Liabilities	2018	2019
Monetary funds and placements to other banks	74,7	71,3			
Loans	710,1	804,5	Liabilities based on loans	462,3	515,2
Loan loss provisions	-5,1	-7,4	Capital	383,3	419,9
Other assets	107,8	122,6	Other liabilities	41,9	56,0
TOTAL	**887,5**	**991,0**	**TOTAL**	**887,5**	**991,0**

Source: FBA and BARS,calculation by CBBH

level stood at 0.92%. Off-balance records, consisting mainly of write-offs, stood at KM 155.99 million at the end of 2018, thus being higher by 4.7% than the year before and accounting for 19.4% of the loan portfolio.

In the liabilities structure, liabilities related to loans accounted for the basic source of MCO assets and amounted to KM 515.2 million, thus posting a rise of KM 52.9 million or 11.45% against the previous year. At the end of 2019, the total capital of the sector amounted to KM 419.9 million and increased by KM 36.6 million (9.54%) compared to the year before. The increase in the total capital of the microcredit sector was mostly affected by the increase in surplus income over expenditures of microcredit foundations (KM 16 million) and the increase in unallocated profit of microcredit companies (KM 15.2 million) based on the posted profit for the current reporting period.

At the end of 2019, the microcredit sector achieved a positive financial result of KM 34 million and recorded a profit increase of KM 1.9 million compared to the previous year. The sector's total revenues continued to grow because of more significant interest income growth (KM 14.4 million or 15.1%), which was largely due to extremely high interest rates. The average weighted effective interest rate on total loans in the FBH in 2019 was 24.38% and in the RS 22.56%. Especially high were the effective interest rates on short-term loans, which further increased in 2019 in the FBH, while it decreased in the RS (although still being above the average value). The total expenditures of the microcredit sector amounted to KM 132 million, thus posting a rise by 8.7% compared to the previous year. The increase in total expenditures was recorded as a result of the increase in operating expenditures, which mostly accounted for the costs of salaries and contributions. Operating expenditures make up for 70% of total expenditures and are 12.2% higher than in 2018, as mostly caused by higher number of employees in the microcredit sector. At the same time, there was a significant increase of costs of provisions for loan and other losses of KM 3.2 million or 72% compared to the previous year.

In 2019, an increase in the balance sheet total and the business volume in the leasing sector were recorded. At the end of 2019, there were five leasing companies holding an operating license. Total assets of this sector stood at KM 323.7 million, up by KM 26.5 million (8.9%) compared to the previous year. Financial leasing holds a share of 85% in the value of lease contracts and operating leasing the remaining 15%. The value of newly concluded financial and operating lease contracts in 2019 amounted to KM 197 million, which is 2.2% more than in the same period last year. Total net receivables from the financial leasing amounted to KM 241.1 million and represented 74.5% of total assets in 2019. If compared against the year before, net receivables from the financial leasing went up by KM 26.4 million or 12.3%.

At the end of 2019, the leasing sector posted a negative financial result of KM 1 million, as largely resulting from an increase of interest expenditures due to higher loans and major rise of loss provisions costs with one leasing company that posted a loss figure of KM 3.1 million. Also, another leasing company reported negative financial result of KM 1.3 million, while three leasing companies noted a positive financial result of KM 3.4 million.

The insurance market continued to record growth in premium income and balance sheet total in 2019. In the insurance market in BH in 2019, there were 26 insurance companies and one reinsurance company. The total accrued premium in 2019 amounted to KM 762.9 million, up by 7% against the same period last year. Although the premium growth was also recorded in 2019, the share of premiums in total GDP remained at the same level as in the previous year (2.18% of GDP). Out of total calculated premium, non-life insurance accounted for 79.2% or KM 604.5 million. The automobile liability insurance still holds the largest share in the total insurance premium (over 50%). Besides the increase of automobile liability insurance, the category of non-life insurance has also seen an increase of other insurance types – insurance policies related to loan security and guarantees.

The accrued life insurance premium amounted to KM 158.4 million, thus posting a rise of 10.5% compared to the previous year. Total gross claims amounted to KM 301.3 million and accounted for 39.5% of total accrued premiums.

According to the CBBH data, at the end of 2019, insurance companies held 33.8% of total assets in various forms of deposits in commercial banks. Investments of the insurance sector in the government securities at the end of 2019 amounted to KM 452.9 million and recorded an increase of 8.1% compared to the previous year, and the share of government securities in the total assets of insurance companies remained the same as at the end of the previous year (21.8%).

In 2019, the increase in insurance premiums of 50 million indicates to a gradual improvement of this area compared to 2018. However, modest increase of the life insurance share in the total premium in 2019 (0.7%) shows no major changes and improvements to the general economic conditions in BH, which are still a limiting factor to development of the insurance market in BH. Low average salaries and continuously high unemployment rates are key reasons to the poor share of voluntary insurance types, thus finally representing a limiting factor to strengthening the investment potential of the insurance sector.

In 2019, there were 36 licensed investment funds, 17 in FBH and 19 in RS. Out of the 36 investment funds, 23 are open-end investment funds, while 13 are closed-end investment funds.

The net asset value of investment funds at the end of 2019 amounted to KM 852.1 million and recorded a decrease of KM 35.1 million or 3.96% compared to the end of the previous year due to lower market value of securities from the portfolio of most of investment funds. Although majority of funds still posts a reduction of net assets, there are several funds that pushed upwards the value of their net assets.

After three years of a decreasing trend, the total turnover of BH stock exchanges in 2019 climbed to KM 903.1 million, thus being KM 186.7 million or 26.1% more than in the same period of the previous year. Out of the total turnover, KM 430.9 million or 47.7% was generated on the Sarajevo Stock Exchange (SASE) and KM 472.1 million or 52.28% on the Banja Luka Stock Exchange (BLSE). In 2019, SASE posted a rise in turnover by 49.5% or KM 142.7 million, while BLSE turnover rose by KM 40 million or 10.3%.

In 2019, there was a significant increase in stock market activity on the primary market, since the government sector, as major driver of activity in this market segment, greatly boosted the intensity of borrowing on the domestic capital market (more details provided in the Government Chapter). The total market capitalization in BH at the end of 2019 was higher than in the year before, as a result of an increase in market capitalization on SASE in the amount of KM 562 million (11.2%) and on BLSE in the amount of KM 156 million (4.3%) compared to the end of 2018.

7. Financial Infrastructure

7.1. Payment systems

In 2019, the Central Bank of BH fulfilled its legal obligation to maintain adequate payment systems. Payment operations were carried out seamlessly through the systems of giro clearing and Real Time Gross Settlement (RTGS). Activities related to modernization of payment systems in BH continued and were aimed to ensure alignment with European standards and integration into European trends. The Central Registry of Credits (CRC) of business entities and natural persons was upgraded, as well as the giro clearing system, thus meeting one of preconditions to integration of CBBH payment systems into payment systems in the EU.

During 2019, there was an increase in the number of transactions and the total value of all transactions through the giro clearing and RTGS payment systems. The total value of interbank payment transactions in 2019 rose by 19.8%, thus representing the highest increase rate since 2007.

The upward trend of the total number of transactions continued in 2019 as well, thus being a result of having introduced the fourth daily settlement in the giro clearing system as this enabled business entities and natural persons to realise their payment orders more frequently during a single day. The total number of transactions went up by 3% against the year before. The top ten banks in BH by volume of transactions participated in the total number of RTGS and giro clearing of interbank transactions with 73.09% in 2019, which is an increase compared to 2018 when this percentage was 72.69%. The top ten banks also increased their share in total transaction value from 75.67% in 2018 to 78.94% in 2019.

The increase in the value of total payment transactions in 2019 and the faster circulation of money resulted in a decrease of the number of days required to complete transactions in the value of annual nominal GDP (Table 7.1). The downward trend related to the number of intra-bank transactions and the upward trend in the number of interbank transactions continued in 2019 as well. Although the number of intra-bank transactions dropped by 3.3% and the number of interbank ones rose by 3% vs. the same period last year, intra-bank transactions still remained dominant in the total number of transactions with their share of 57% (56.9 million transactions), while the share of interbank transactions was 43% (43.6 million transactions). The value of intra-bank transactions in 2019 stood at KM 113.4 billion or 48%, while the value of interbank transactions was KM 123 billion or 52%.

Table 7.2 shows the values of the Herfindahl-Hirschmanovog index (HHI[30]), which illustrates the concentration of the total number and value of interbank payment transactions. The presented index values are calculated for all the banks in both payment systems (giro clearing and RTGS) based on data on their share in the total number and value of interbank transactions. For all the participating banks, the concentration measured by this index was higher than in the previous year. Although most interbank payment transactions take place between small number of large banks, the HHI index values indicate

Table 7.1: Interbank Payment Transactions

Year	The total number of transaction, in millions	The total turnover, million KM	Average daily turnover, million KM	GDP/ average daily turnover
2005	22,9	36.195	140,3	122
2006	24,9	47.728	185,0	104
2007	28,4	60.193	234,2	93
2008	29,6	70.345	272,7	91
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

Source: CBBH, BHAS, calculation by CBBH

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

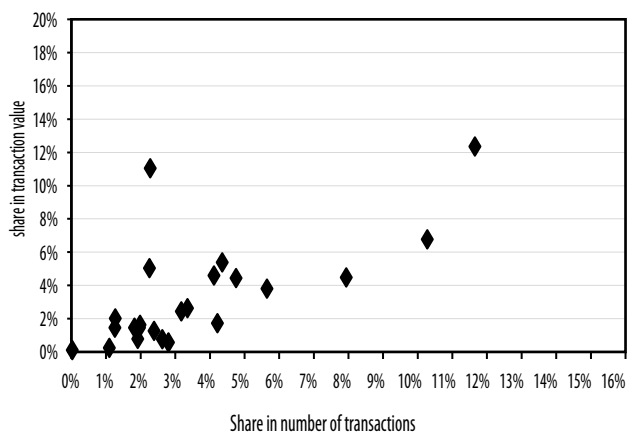
Table 7.2: Concentration of the Transactions in Interbank Payment System (HHI)

Period	All banks		10 banks with the largest shares	
	Number of transactions	Value of transactions	Number of transactions	Value of transactions
December 2008	693	908	1.271	1.381
December 2009	651	989	1.233	1.413
December 2010	651	903	1.256	1.346
December 2011	626	836	1.230	1.287
December 2012	638	844	1.278	1.295
December 2013	654	810	1.337	1.378
December 2014	660	778	1.350	1.310
December 2015	689	810	1.314	1.305
December 2016	690	822	1.307	1.322
December 2017	725	853	1.320	1.349
December 2018	738	869	1.344	1.335
December 2019	767	997	1.397	1.471

Source: CBBH, calculation by CBBH

a moderate concentration of interbank payment transactions and the absence of systemic risks in payment systems. There was an increase in the value of the HHI index that measures the concentration of transaction number and values at the ten largest participating banks, indicating an increase in the concentration of transactions at large banks.

Graph 7.1: The Shares of Banks in Interbank Payment System in 2019



Source: CBBH, calculation by CBBH

Graph 7.1 shows the individual participation of all banks in the total number and value of interbank transactions in 2019. The bank with the largest share in the interbank payment system in 2019 accounted for 23.42% of the total value or 16.8% of the total number of all transactions, while the top five banks with the largest share accounted for 58.99% of the total value of transactions.

In 2019, CBBH upgraded the CRC and this modernised CRC is in function on a new platform since July 2019 where all information updates are done in real time. During the year, CRC provided daily updates to 75 institutions. The trend of increase in the number of access points continued in 2019 as well, as mostly caused by higher number of commercial banks which are still by far the most significant users of information stored in CRC.

In the Single Registry of Accounts of Business Entities of BH (SRABE), the number of access points in 2019 stood at 1,946 (of which, 1,760 was in banks), thus posting a major increase (33.6%) compared to the same period the year before. In 2019, this registry included 239,188 active and 95,593 blocked accounts. After the system upgrade in late 2018, SRABE now contains all accounts of business entities performing their payment transactions in BH via accounts opened with banks and CBBH. SRABE is primarily used by commercial banks, tax authorities, administration, law enforcement and other government levels in detecting financial structures and transactions that companies and individuals may possibly use in an unlawful manner, e.g. for tax evasion, money laundering, etc. Also, this registry provides information to all business entities and natural persons pursuing collection of their claims through enforcement via authorised institutions.

The international clearing of payments between banks from BH and the Republic of Serbia continued in 2019 and a total of 11,931 payment orders were executed through the system, with a value of EUR 265.1 million. The trend of increase in the value and number of transactions continued in 2019 as well, whereas the value of international clearing transactions with the Republic of Serbia rose by 18.3% and the number of orders climbed by 9.93% vs. 2018. This indicates an active use of this platform for the payment transactions clearing.

Since June 3rd 2019, CBBH started with the production work on the new giro clearing payment system. The new giro clearing system is aligned with the rules of SEPA[31] (being applied in the EU) and with ISO 20022. Messages and formats used in this payment system are fully aligned with those contained in SEPA, thus representing an improvement and fulfilment of a precondition for the CBBH payment system's integration into the EU payment systems. This improved payment system is being used for processing credit transfers, i.e. interbank transactions worth up to KM 10,000.00. The project of giro clearing improvement had several stages where commercial banks showed high degree of responsibility and competence, thus finally resulting in readiness of all participants at the start of the production work and thus having the fully functioning system. This is a major step towards modernization of CBBH payment systems, whereas this new giro clearing system replaced the old system that has been continuously functioning for eighteen years and five months.

7.2. Regulatory framework

Following the adoption of sets of laws regulating banking operations in BH over the past two years, thus implementing the reforms in the BH financial sector, as well as adoption of amendments to the laws on banking agencies and adoption of new regulations, all improving the existing regulatory framework related to operations of banks and other financial organizations, the enactment of new regulations continued in 2019 as well. In 2019, decisions were adopted on credit risk management and determination of expected credit losses that prescribe rules regarding the following: credit risk management, manner of allocation of exposures to credit risk grades and determination of expected credit losses, collateral eligible for the purpose of determination of expected credit losses and limitation of the largest permissible exposure vs. recognised capital. Also, 2019 was marked by adoption of the decision on capital calculation in banks, as well as the decision and instructions regarding relevant reporting. The enactment of these decisions (being in effect since January 1, 2020) ensured to significant extent completion of the key set of regulatory documents. In 2019, activities were also implemented regarding a lengthy SREP project and establishment of new supervisory review and assessment processes in line with the new SREP methodology. Activities also continued related to the active role of banks and other financial organizations in the prevention of money laundering and terrorism financing in line with requirements of the applicable law, hence improving cooperation with other supervisory bodies and institutions.

For the continued alignment of the regulatory framework, it is also very important that the new Law on Deposit Insurance of BH was adopted in mid-2020. This law should ensure better protection of depositors and prescribe the obligation of membership in the deposit insurance program for each new bank licenced by the competent banking agency, as also defined by the relevant EU directive governing the deposit protection segment. Also, the stated law enables the BH Deposit Insurance Agency (through the Deposit Insurance Fund) to participate in the process of financing bank resolutions in specific situations defined in this law and the laws on banks. Another thing provided in this law is that the deadline for payments to depositors in case of a banking licence revocation has been reduced from 90 to 20 work days.

In 2020, it is expected to see continued process of BH banking regulations alignment with the regulatory and supervisory framework in the EU. EBA should send a proposal of the European Commission assessment for the purpose of reaching a final decision on alignment of the BH regulatory and supervisory framework with the EU regulatory and supervisory framework.

For purpose of mitigating negative economic consequences caused by the Coronavirus emergence, the competent Banking Agencies have, in late March 2020, adopted series of decisions approving relief measures to customers being directly or indirectly impacted by the adverse effects of this pandemic. With the introduction of a moratorium option, i.e. prolongation of payment of loan obligations to banks and microcredit organizations, as well as introduction of special rules for credit risk management and preventive measures aimed at preserving the capital of banking system entities, the Agencies have enabled these entities to use a wide range of options during the emergency situation caused by the Coronavirus disease.

A potential source of risk for financial intermediaries and financial markets rests with a standstill in the functioning of the FBH Securities Commission dating back to late 2019 due to which shareholder companies in FBH (including financial intermediaries) are not able to realise their status changes.

[31] Single Euro Payment Area (SEPA) – a region encompassing 36 member countries, of which some countries are not members of the euro area or EU.

Statisical Appendix

Table A1: Sovereign Rating Changes

Country	Date of change	Standard & Poor's rating		
		Long-term	Outlook	Short-term
Greece	until 2009	A	Stable	A-1
	09.01.2009	A	Negative, watch	A-1
	14.01.2009	A	Stable	A-2
	07.12.2009	A	Negative, watch	A-2
	16.12.2009	BBB+	Negative, watch	A-2
	16.03.2010	BBB+	Negative	A-2
	27.04.2010	BB+	Negative	B
	02.12.2010	BB+	Negative, watch	BB+
	29.03.2011	BB-	Negative, watch	B
	09.05.2011	B	Negative, watch	C
	13.06.2011	CCC	Negative	C
	27.07.2011	CC	Negative	C
	05.02.2012	CCC	Stable	C
	27.02.2012	SD	NM	SD
	02.05.2012	CCC	Stable	C
	07.08.2012	CCC	Negative	C
	05.12.2012	SD	-	SD
	18.12.2012	B-	Stable	B
	28.01.2015	B-	Negative, watch	B
	15.04.2015	CCC+	Negative	C
	22.01.2016	B-	Stabilan	B
	19.01.2018	B	Positive	B
	25.06.2018	B+	Positive	B
	25.11.2019	BB-	Positive	B
	24.04.2020	BB-	Stable	B
Ireland	until 2009	AAA	Stable	A-1+
	09.01.2009	AAA	Negative	A-1+
	30.03.2009	AA+	Negative	A-1+
	08.06.2009	AA	Negative	A-1+
	24.08.2010	AA-	Negative	A-1+
	23.11.2010	A	Negative, watch	A-1
	02.02.2011	A-	Negative, watch	A-2
	01.04.2011	BBB+	Stable	A-2
	05.12.2011	BBB+	Negative, watch	A-2
	13.01.2012	BBB+	Negative	A-2
	11.02.2013	BBB+	Stable	A-2
	07.12.2013	BBB+	Positive	A-2
	06.06.2014	A-	Positive	A-2
	05.12.2014	A	Stable	A-1
	05.06.2015	A+	Stable	A-1
	29.11.2019	AA-	Stable	A-1+
Portugal	until 2009	AA-	Stable	A-1+
	13.01.2009	AA-	Negative, watch	A-1+
	21.01.2009	A+	Stable	A-1
	07.10.2009	A+	Negative	A-1
	27.04.2010	A-	Negative	A-2
	30.11.2010	A-	Negative, watch	A-2
	24.03.2011	BBB	Negative, watch	A-2
	29.03.2011	BBB-	Negative	A-3
	05.12.2011	BBB-	Negative, watch	A-3
	13.01.2012	BB	Negative	B
	06.03.2013	BB	Stable	B
	05.07.2013	BB	Negative	B
	09.05.2014	BB	Stable	B
	20.03.2015	BB	Positive	B
	18.09.2015	BB+	Stable	B
	15.09.2017	BBB-	Stable	A-3
	15.03.2019	BBB	Stable	A-2

Spain	until 2009	AAA	Stable	A-1+
	12.01.2009	AAA	Negative, watch	A-1+
	19.01.2009	AA+	Stable	A-1+
	09.12.2009	AA+	Negative	A-1+
	28.04.2010	AA	Negative	A-1+
	05.12.2011	AA-	Negative, watch	A-1+
	13.01.2012	A	Negative	A-1
	26.04.2012	BBB+	Negative	A-2
	10.10.2012	BBB-	Negative	A-3
	23.05.2014	BBB	Stable	A-2
	02.10.2015	BBB+	Stable	A-2
	01.04.2017	BBB+	Positive	A-2
	23.03.2018	A-	Positive	A-2
	20.09.2019.	A	Stable	A-1
Italy	until 2009	A+	Stable	A-1+
	20.05.2011	A+	Negative	A-1+
	20.09.2011	A	Negative	A-1
	05.12.2011	A	Negative, watch	A-1
	13.01.2012	BBB+	Negative	A-2
	09.07.2013	BBB	Negative	A-2
	05.12.2014	BBB-	Stable	A-3
	27.10.2017	BBB	Stable	A-2
	26.10.2018	BBB	Negative	A-2
Cyprus	until 2009	A+	Stable	A-1
	21.07.2010	A+	Negative, watch	A-1
	16.11.2010	A	Negative	A-1
	30.03.2011	A-	Negative	A-2
	29.07.2011	BBB	Negative, watch	A-2
	12.08.2011	BBB+	Negative, watch	A-2
	27.10.2011	BBB	Negative, watch	A-3
	13.01.2012	BB+	Negative	B
	01.08.2012	BB	Negative, watch	B
	17.10.2012	B	Negative, watch	B
	20.12.2012	CCC+	Negativan	C
	21.03.2013	CCC	Negativan	C
	10.04.2013	CCC	Stable	C
	28.06.2013	SD	-	SD
	03.07.2013	CCC+	Stable	C
	29.11.2013	CCC+	Stable	B
	25.04.2014	B	Positive	B
	24.10.2014	B+	Stable	B
	27.03.2015	B+	Positive	B
	25.09.2015	BB-	Positive	B
	18.03.2017	BB+	Stable	B
	15.09.2017	BB+	Positive	B
	14.09.2018	BBB-	Stable	A-3

Source: Standard & Poor's

Table A2: Real Estate Price Index

		Sarajevo	Mostar	Zenica	Tuzla	TOTAL
2004	Q1	47	84	60		**52**
	Q2	47	81	59		**51**
	Q3	47	82	60		**51**
	Q4	48	80	59		**52**
2005	Q1	49	79	61		**53**
	Q2	49	81	60		**52**
	Q3	50	79	60		**53**
	Q4	52	82	64		**56**
2006	Q1	54	84	67		**59**
	Q2	59	84	63		**62**
	Q3	58	82	66		**62**
	Q4	63	71	71		**65**
2007	Q1	69	85	72		**71**
	Q2	77	90	88		**79**
	Q3	85	86	92		**86**
	Q4	94	92	95		**94**
2008	Q1	100	100	100	100	**100**
	Q2	105	99	107	104	**105**
	Q3	103	102	113	114	**105**
	Q4	109	104	126	117	**110**
2009	Q1	99	120	129	102	**102**
	Q2	96	125	127	105	**101**
	Q3	91	124	128	114	**99**
	Q4	89	127	119	121	**97**
2010	Q1	88	119	130	119	**96**
	Q2	86	128	129	126	**98**
	Q3	85	120	126	112	**94**
	Q4	84	126	143	120	**94**
2011	Q1	83	125	138	113	**93**
	Q2	84	121	140	93	**92**
	Q3	82	118	132	102	**92**
	Q4	83	124	131	107	**92**
2012	Q1	84	132	130	111	**94**
	Q2	82	117	139	105	**93**
	Q3	80	124	122	103	**89**
	Q4	78	120	133	104	**88**
2013	Q1	81	128	135	113	**91**
	Q2	78	127	134	113	**90**
	Q3	79	124	124	116	**90**
	Q4	76	130	136	101	**88**
2014	Q1	78	121	126	104	**88**
	Q2	77	119	124	104	**86**
	Q3	77	111	126	106	**86**
	Q4	77	113	129	103	**85**
2015	Q1	79	118	127	103	**87**
	Q2	80	117	127	106	**89**
	Q3	78	118	131	107	**88**
	Q4	81	114	126	106	**89**
2016	Q1	78	112	125	104	**87**
	Q2	80	115	134	104	**88**
	Q3	82	131	133	108	**93**
	Q4	81	128	134	106	**93**
2017	Q1	83	128	134	102	**93**
	Q2	84	113	134	102	**91**
	Q3	83	124	138	109	**92**
	Q4	86	110	135	118	**94**
2018	Q1	86	119	131	104	**93**
	Q2	87	128	131	105	**94**
	Q3	85	122	135	113	**94**
	Q4	88	127	132	110	**94**
2019	Q1	97	123	136	109	**103**
	Q2	95	127	142	115	**102**
	Q3	90	129	147	115	**98**
	Q4	92	127	139	115	**99**

Source: CBBH

Table A3: Main Positions in Foreign Trade of Goods

	Name	Value of exports, million KM	Value of exports, million KM	Index of export prices	Nominal export growth, in %	Change of export value (in percentage points)	
		2018	2019	I - XII 2019 / I - XII 2018		Price effect	Export volume effect
		1	2	3	4 = 2/1	5	6
main groups of export products	**Base metals and base metal products**	**2.290,0**	**2.100,1**		**-8,3**		
	Out of it: iron and steel	631,1	575,5	93,2	-8,8	-6,5	-2,1
	Iron and steel products	713,4	780,1	95,6	9,3	-6,6	14,4
	Aluminium and aluminium products	721,7	542,9	106,5	-24,8	21,6	-29,4
	Machinery, appliances, mechanical and electrical equipment	1.437,1	1.590,2		10,7		
	Machinery, appliances, mechanical equipment, boilers and parts thereof	**764,6**	**804,3**	**100,5**	**5,2**	**-1,7**	**4,6**
	Electrical machinery, equipment and parts thereof, sound recorders or reproducers, television image and sound recorders or reproducers and parts and equipment for such products	672,4	785,9	95,3	16,9	0,6	22,6
	Miscellaneous products	**1.227,1**	**1.114,8**		**-9,2**		
	Of which: furniture; mattress supports, bedding and similar products; lamps and lighting fittings, not elsewhere specified or included; lighting signs, lighting name-plates ; prefabricated buildings	1.118,8	1.007,3	93,1	-10,0	-6,3	-3,3
	Mineral origin products	**1.298,9**	**1.070,0**		**-17,6**		
	Of which: mineral fuels, mineral oils and products of their distillation, electric energy, bituminous substances and mineral waxes	1.162,7	929,2	114,7	-20,1	-113,9	-30,3
	Products of chemical industry or related industries	**991,9**	**936,5**		**-5,6**		
	Inorganic chemical products, organic and inorganic compounds of precious metals, rare metals, radioactive elements and isotopes	635,0	622,4	136,5	-2,0	0,0	-4,0
	Wood and wood products	**801,7**	**756,3**		**-5,7**		
	Wood and wood products; charcoal	797,6	751,8	112,0	-5,7	10,2	-15,8
		Value of imports, million KM	Value of imports, million KM	Index of import prices	Nominal import growth, in %	Change of import value (in percentage points)	
		2018	2019	I - XII 2019 / I - XII 2018		Price effect	Import volume effect
main groups of import products	**Mineral origin products**	**2.974,5**	**2.882,3**		**-3,1**		
	Of which: mineral fuels, mineral oils and products of their distillation, electric energy, bituminous substances and mineral waxes	2.845,1	1.564,1	102,3	-45,0	20,9	-6,4
	Machinery, appliances, mechanical and electrical equipment	**2.664,1**	**2.758,6**		**3,5**		
	Machinery, appliances, mechanical equipment, boilers and parts thereof	1.545,4	1.603,6	97,4	3,8	-0,5	6,6
	Electric machinery, equipment and parts thereof, sound recorders or reproducers, television image and sound recorders or reproducers and parts and equipment for such products	1.118,7	1.155,0	104,2	3,2	-2,8	-0,9
	Base metals and base metal products	**2.203,4**	**2.152,7**		**-2,3**		
	Out of which: iron and steel products	702,3	621,7	101,7	-11,5	4,8	-13,0
	Iron and steel	530,2	510,9	102,7	-3,6	1,5	-6,2
	Aluminium and aluminium products	368,4	411,8	92,3	11,8	16,4	21,1
	Chemical industry or related industry products	**1.787,0**	**1.752,5**	**108,8**	**0,0**	**2,2**	**-9,9**
	Inorganic chemical products, organic and inorganic compounds of precious metals, rare metals, radioactive elements and isotopes	252,9	150,9	87,5	-0,4	8,0	-31,8
	Of which: pharmaceutical products	570,6	632,9	108,5	0,1	0,0	2,3
	Essential oils and resins, perfumery, cosmetic or toilet products	235,2	245,9	103,7	0,0	-3,2	0,0
	Miscellaneous chemical industry products	169,6	169,5	91,9	0,0	-10,2	8,7
	Food products	**1.576,1**	**1.658,4**		**5,2**		
	Cereal, flour, starch or milk products; pastries	212,8	231,9	101,1	9,0	5,2	7,7
	Miscellaneous food products	262,4	285,3	101,8	8,7	2,7	6,8
	Beverages, alcohols and vinegar	346,0	357,0	97,1	3,2	1,9	6,2
	Food industry waste and scraps; prepared animal food	191,7	197,2	101,3	2,9	-3,1	1,6

Source: BHAS, calculation by CBBH

Table A4: Financial Soundness Indicators

Period	Number of banks	Capital			Asset quality			Profitability				Liquidity				Foreign exchange risk		
		Tier I capital to the total risk exposure	Regulatory capital to the total risk exposure	Capital to the total assets	Non-performing assets to the total assets	Non-performing loans reduced by the provisions to Tier I	Non-performing loans to the total loans	Return on average assets	Return on average equity	Net interest income to the total income	Non-interest expenses to the total income	Liquid assets to the total assets	Liquid assets to short-term financial liabilities	Deposits to loans	Short-term financial liabilities to the total financial liabilities	Indexed and foreign currency loans to the total loans	Liabilities in foreign currencies to the total financial liabilities	Net open position
2009	30	12,39	16,07	10,72	3,92	25,46	5,87	0,09	0,84	61,54	97,38	30,94	52,95	85,57	66,10	73,89	69,17	1,70
2010	29	12,64	16,17	11,77	8,14	42,01	11,42	-0,60	-5,49	60,06	108,96	28,99	49,71	86,26	66,85	70,05	66,97	4,37
2011	29	13,57	17,07	13,61	8,79	25,92	11,80	0,67	5,78	63,87	86,52	27,19	46,67	84,89	68,14	66,86	66,16	15,99
2012	28	14,06	17,00	14,21	10,26	30,05	13,47	0,60	4,91	63,67	87,35	25,43	44,05	84,38	67,92	63,14	65,24	5,35
2013	27	15,23	17,84	14,37	11,42	30,97	15,12	-0,18	-1,42	62,29	101,22	26,38	46,23	87,17	67,26	62,87	63,77	6,69
2014	26	14,35	16,26	14,38	10,55	27,92	14,17	0,65	5,16	61,59	85,74	26,78	46,14	92,42	68,46	62,26	62,68	10,23
2015	26	13,76	14,86	14,10	10,14	26,88	13,71	0,30	2,03	62,04	94,53	26,48	44,04	96,89	70,69	67,09	60,29	8,97
2016	23	15,03	15,82	14,35	8,43	18,48	11,78	1,08	7,30	60,40	80,75	27,21	44,09	101,73	72,82	62,57	57,43	1,67
2017	23	14,77	15,68	14,01	7,16	14,35	10,05	1,46	10,17	58,31	73,34	28,37	44,31	105,06	75,17	60,06	55,15	-0,23
2018	23	16,49	17,53	13,18	6,27	12,15	8,77	1,31	9,65	58,83	74,00	29,74	44,66	109,59	77,34	56,66	53,28	2,24
2019	23	17,47	18,02	12,84	5,25	9,91	7,41	1,37	10,44	56,79	71,04	29,64	45,53	112,71	75,33	53,87	50,67	3,53

Source: CBBH

Table A5: Status Changes in Banks in the Period 2001-2019

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 with 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	Merger 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 person	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		
	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
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. Tuzla	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
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	Sberbank d.d. Sarajevo	Volksbank d.d. Sarajevo changed its name into Sberbank d.d. Sarajevo	Q1 2013
	Volksbank d.d. Sarajevo	Sberbank group acquired Volksbank d.d Sarajevo	Q1 2012
17	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 Luk	Became a member of Volksbank International AG, changed its name into Volksbank a.d. BL	Q3 2007
18	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
19	Vakufska banka d.d. Sarajevo		
	Depozitna banka d.d. Sarajevo	Merged to Vakufska banka d.d. Sarajevo	Q2 2002
20	Nova banka a.d. Banja Luka	Nova banka a.d. Bijeljina promijenila sjedište	Q3 2007
	Agroprom banka a.d. Banja Luka	Pripojena Novoj banci a.d. Bijeljina	Q1 2003
21	Naša banka a.d. Bijeljina		
	Pavlović International Banka a.d. Slobomir Bijeljina	Promijenila ime u Naša banka a.d. Bijeljina	Q4 2019
	Privredna banka a.d. Doboj	Pripojena Pavlović International banci	Q2 2003
	Privredna banka a.d. Brčko	Pripojena Pavlović International banci	Q4 2002
	Semberska banka a.d. Bijeljina	Pripojena Pavlović International banci	Q4 2001
22	Komercijalna banka a.d. Banja Luka		
23	MF banka a.d. Banja Luka		
	IEFK banka a.d. Banja Luka	Promijenila ime u MF banka a.d. Banja Luka	Q3 2010
	The banks the operating licenses of which have been revoked 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

Source: CBBH

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