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CENTRALNA BANKA BOSNE I HERCEGOVINE
ЦЕНТРАЛНА БАНКА БОСНЕ И ХЕРЦЕГОВИНЕ

Financial Stability Report

2020

CENTRALNA BANKA BOSNE I HERCEGOVINE

ЦЕНТРАЛНА БАНКА БОСНЕ И ХЕРЦЕГОВИНЕ

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Abbreviations

BARS	Banking Agency of RS
BH	Bosnia and Herzegovina
BHAS	BH Agency for Statistics
BLSE	Banja Luka Stock Exchange
BoE	Bank of England
BoJ	Bank of Japan
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
EUR	Euro
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
IMF	International Monetary Fund
KM	Convertible mark
MCO	Microcredit organizations
MFT of BH	Ministry of Finance and Treasury of Bosnia and Herzegovina
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
WEO	World Economic Outlook
WTO	World Trade Organization
WTI	The price of Brent oil in US market – West Texas Intermediate

Countries:

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

Introduction

The Central Bank of Bosnia and Herzegovina (CBBH) understands financial stability as a situation in which a financial system can absorb shocks without any significant disturbances in its current and future operations and whose functioning has no negative effects on the economy.

The CBBH's authority to monitor the financial system stability indirectly arises from the CBBH Law. The CBBH plays an active role in the development and implementation of the policy on stability and sustainable economic growth of BH, by ensuring the stability of the domestic currency and overall financial and economic stability in the country. One of the CBBH's basic tasks is to establish and maintain adequate payment and settlement systems as a part of financial infrastructure. The CBBH contributes to the maintenance of financial stability through its authority to coordinate the activities of the Entity Banking Agencies, as defined by law. According to the Governing Board decision, the CBBH participates in the work of international organisations engaged in the strengthening of financial and economic stability through the international monetary cooperation. CBBH's activities in the field of monitoring financial system stability also include a specialized communication with relevant international and domestic institutions ensuring the continuity of the process of systemic risks monitoring. CBBH contributes to the preservation of financial stability within its membership in the Standing Committee for Financial Stability of BH.

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

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

Although the Report focuses on the events from 2020, its coverage is expanded to include the most important developments from the first half of 2021, in line with data available at the time of its preparation. The Financial Stability Report 2020 is organized in chapters, as follows. The Executive Summary stresses the most important risks for the financial system stability. The first Chapter presents the main trends and risks from the international environment. This Chapter particularly stresses the main risks from the EU and the euro area and describes their effects on the banking sector and the real economy of this geographical area, with a focus on the risks that might affect the BH's banking sector and its real economy. The Second Chapter gives an overview of trends and potential risks from the domestic environment that have an impact on the functioning of BH's financial system, including an overview of the main trends and risks coming from the fiscal sector. The Third Chapter illustrates the risk effects identified in previous chapters in relation to household debts. The Fourth Chapter focuses on the identified risk effects on the corporate sector. The Fifth Chapter evaluates risk effects on the financial system stability, focusing on the banking sector. The Sixth Chapter illustrates main trends in the financial infrastructure: payment systems and regulatory framework. The Financial Stability Report 2020 contains four text boxes: Assessment of the main macro-financial risks to financial stability; Overview of the economy relief and stabilization measures taken in BH during the COVID-19 pandemic; Network analysis of systemic risk spillovers; and Stress tests.

Finally, we need to stress that this report includes only the issues of significance for the systemic risk, as the supervision of financial intermediaries' operations, according to the applicable laws in BH, is the task of competent supervisors for the financial sector. Its basic objective is to point out the risks arising from the financial system and the macroeconomic environment, and to assess the shock absorbing capacity of the system.

Summary

The main characteristics of global economy in 2020 were: a sharp decline in global economic activity caused by the coronavirus pandemic that, along with the restrictive epidemiological measures, led to a standstill in the economic and social activities around the world, a slowdown in economic growth in both developed and developing countries, weakening of the world trade and global inflationary pressures as a result of the economic activity slowdown, turbulences in the international financial markets, and the extremely expansionary monetary policies of the leading central banks aimed at mitigating the economic consequences of the pandemic. During 2020, geopolitical risks were still pronounced due to the continuation of trade tensions between the USA and China and the uncertainties in the regulation of trade relations between the United Kingdom and the EU. The key risks to financial stability in the euro area are: a strong growth in fiscal imbalances in the euro area, which again calls into question the sustainability of public debt of some member states; over-indebtedness of the non-financial corporate sector and an increased risk of irregular debt servicing on long-term basis; low profitability of banks and growth of provisions for the expected credit losses; and high exposure of banks to the government sector.

Risks from the domestic macroeconomic environment significantly strengthened during 2020. The small and open BH economy was not immune to global recession, so the year of 2020 saw the largest contraction of the real GDP in recent BH history (-4.3%). However, the BH economy, like most global economies affected by the pandemic, should record a U-shaped recovery if the optimism regarding vaccination and the fight against the pandemic materializes during 2021. Despite the expected growth of public debt and the increased pressure on fiscal stability, there is a minimal likelihood of significant undermining of the BH's fiscal position. A similar view is taken by international rating agencies, which have affirmed the BH's long-term credit rating, stressing that moderate debt levels and fiscal restraint in recent years have provided a fiscal space to respond to economic shocks.

The economic recovery expected in 2021 still carries a high degree of uncertainty and financial risks, and the materialization of positive expectations will predominantly depend on the pace of global economic recovery, primarily in EU countries, but also on the economic stabilization measures within the country.

The declining economic activity and unfavourable labour market developments have increased uncertainties in the household sector and reduced the propensity to consume and borrow. Although in 2020 there was no deterioration in the quality of loan portfolio in the household segment, while the non-performing loans recorded a decline at the sector level, such developments were largely the result of write-offs of non-performing loans, whereas credit risk did not materialize thanks to the moratoriums introduced on loan repayments to clients affected by the COVID-19 pandemic. The multiannual trend of declining interest rates on household loans came to a halt in 2020 and so has the multiannual trend of increase in the long-term term household deposits. Only the growth of funds on transaction accounts and the demand deposits have contributed to the growth of total deposits. Unlike lending rates, the deposit interest rates continued to fall in 2020.

Total indebtedness of the non-financial corporate sector to domestic financial intermediaries in 2020 did not change significantly compared to the previous year. As in previous years, the corporate sector relied mostly on the bank credit support to finance its business activities. Despite the increase in risks in the corporate sector resulting from the weakened economic activity in all key sectors, interest rates on loans remained relatively low. The decrease in non-performing loans in the non-financial corporate sector was primarily the result of the beginning of implementation of new regulations and measures in order to mitigate negative consequences of the pandemic. Currency risk is still not regarded as a significant source of risk, while the interest rate risk slightly increased. Risk materialization in the non-financial corporate sector can be expected in the coming periods, after expiration of the government's and regulatory support measures.

The coronavirus pandemic also affected the BH banking sector, and its consequences have been partly mitigated or postponed by measures introduced by the entity banking agencies, such as moratoriums on the repayment of due liabilities, and other special measures. The absence of credit growth in 2020 was the consequence of a reduced demand for loans, as well as the tightening of credit standards in the

banks' business policies, in the conditions of unfavourable economic trends. Despite the unfavourable business environment in 2020, the BH banking sector remained adequately capitalized, the quality of assets improved, and liquidity indicators were at a satisfactory level. However, due to the decline in economic activity, net profit decreased significantly compared to previous years. Also, the exposure to government sector grew due to the increased purchase of entity securities, and the unfavourable maturity structure of funding sources remained one of the key risks to financial stability. Solid capital and liquidity positions of banks should be a key factor in mitigating the negative effects of pandemic, while the results of top-down stress tests also indicate that the banking sector is able to absorb strong macroeconomic shocks.

In 2020, the Central Bank of BH fulfilled its legal obligation to maintain appropriate payment systems. Payment transactions proceeded smoothly through the gyro clearing and real-time gross settlement systems (RTGS). The Central Registry of Credits (CRC) and the Single Registry of Accounts of Business Entities (SRABE) were maintained, while the transactions through international clearing of foreign payments proceeded smoothly.

In 2020, domestic institutions continued adopting new bylaws, thus significantly completing a key set of regulations as part of the entity laws on banks. Over the course of the year, a number of temporary measures were adopted for the banking sector, leasing sector and microcredit organizations, with the aim of mitigating the negative economic consequences caused by the coronavirus outbreak. With the adoption of new Law on Deposit Insurance in BH Banks in June 2020, the legal framework for banks' operations was finally completed.

1. Trends and Risks from the International Environment

The year of 2020 and the first half of 2021 recorded a sharp decline in global economic activity caused by the coronavirus pandemic, which, along with the epidemiological measures, have led to the current stagnation of economic and social activities around the world. The main features of global economy in 2020 were: slowdown of economic growth in the developed and developing countries; weakening of global trade due to the reduced demand (reduced consumption) as well as supply (cessation of production); weakening of global inflationary pressures as a result of the economic activity slowdown; turbulences on the international financial markets; and highly expansionary monetary and fiscal policies aimed at mitigating economic consequences of the pandemic.

In 2020, geopolitical risks still prevailed, due to the continued trade tensions between the United States and China, as well as the uncertainty over the regulation of trade relations between the United Kingdom and the EU. In the conditions of increased trade tensions, the impact of the pandemic on demand and previously introduced tariffs led to a sharp decline in international trade. Along with the strong and sharp contraction of global economy, the deterioration of the global economic climate, due to the uncertainty regarding further course and duration of the pandemic will be one of the main risks to the stability of global financial system in the coming period.

1.1. Trends in the international environment

Following a slowdown in global economic growth in 2019, the year of 2020 was marked by a strong contraction in global economic activity caused by the sudden outbreak of coronavirus pandemic. In 2020, the global economic activity declined by 3.3%, with the developed countries recording a decline in economic activity of 4.7%, while the developing countries recorded a somewhat milder decline of 2.2% (Table 1.1). The largest decline in economic activity in the group of developed countries in 2020 was recorded in the euro area and the United Kingdom, at 6.6% and 9.9%, respectively. On the other hand, China was the only world's leading economy to achieve positive economic growth in 2020, i.e. at a rate of 2.3%, which also affected the mild decline in economic activity among the developing countries.

According to IMF projections from April 2021, the global economy is expected to grow by 6.0% this year, while the global economic growth of 4.4% is projected for 2022. The projections of global economic growth for 2021 and 2022 were revised up by 0.8% and 0.2%, respectively, compared to the projections from October 2020, based on the assumption of normalization of epidemiological situation primarily due to the progress in collective immunization and additional fiscal incentives in several major world economies. This is especially true for the US, which is projected to return to the pre-pandemic economic activity level in the second half of 2021, while the euro area and the UK are not expected to recover to the pre-crisis economic activity levels before 2022 or 2023.

Table 1.1: Real GDP, Annual Growth Rate

	Real GDP, Annual Growth Rate					Change relative to the October 2020 projection	
	2018	2019	2020	2021	2022	2020	2021
The World	**3.6**	**2.8**	**-3.3**	**6.0**	**4.4**	**1.1**	**0.8**
Developed economies	2.3	1.6	-4.7	5.1	3.6	1.1	1.2
USA	3.0	2.2	-3.5	6.4	3.5	0.8	3.3
EU	2.3	1.7	-6.1	4.4	3.9	1.5	-0.6
Euro area	1.9	1.3	-6,6	4.4	3.8	1.7	-0.8
Great Britain	1.3	1.4	-9.9	5.3	5.1	-0.1	-0.6
Japan	0.6	0.3	-4.8	3.3	2.5	0.5	1.0
Developing countries and emerging markets	4.5	3.6	-2.2	6.7	5.0	1.1	0.7
Russia	2.8	2.0	-3.1	3.8	3.8	1.0	1.0
China	6.7	5.8	2.3	8.4	5.6	0.4	0.2
European developing countries and emerging markets	3.4	2.4	-2.0	4.4	3.9	2.6	0.5
Main foreign trade partners							
Germany	1.9	2.0	-3.4	2.0	4.3	2.6	-0.6
Croatia	2.8	2.9	-9.0	4.7	5.0	0.0	-1.3
Serbia	4.5	4.2	-1.0	5.0	4.5	1.5	-0.5
Italy	0.9	0.3	-8.9	4.2	3.6	1.7	-1.0
Slovenia	4.4	3.2	-5.5	3.7	4.5	1.2	-1.5
Austria	2.6	1.4	-6.6	3.5	4.0	0.1	-1.1
Montenegro	5.1	4.1	-15.2	9.0	5.5	-3.2	3.5

Source: World Economic Outlook, IMF, April 2021, CBBH

Deterioration of economic trends was recorded all over the world, but it varied in intensity due to different epidemiological situations and circumstances regarding introduction of epidemiological measures. China, whose economy was affected by the spread of epidemics to the rest of the world and lockdowns of its main trading partners, recorded a strong annual decline in economic activity of 6.8% in the first quarter of 2020. However, as the epidemiological situation improved and the restrictive measures were lifted, China recorded annual GDP growth rate of 3.2% as early as the second quarter, and the growth of economic activity continued at an accelerated pace in the third and the fourth quarter of 2020. Despite a significant slowdown in economic activity, China is the only major economy in the world that managed to avoid a recession and achieve economic growth of 2.3% in 2020. The Chinese economy continued to recover in the first quarter of 2021, but at a slower pace and a rate of 0.6% compared to the fourth quarter of 2020.

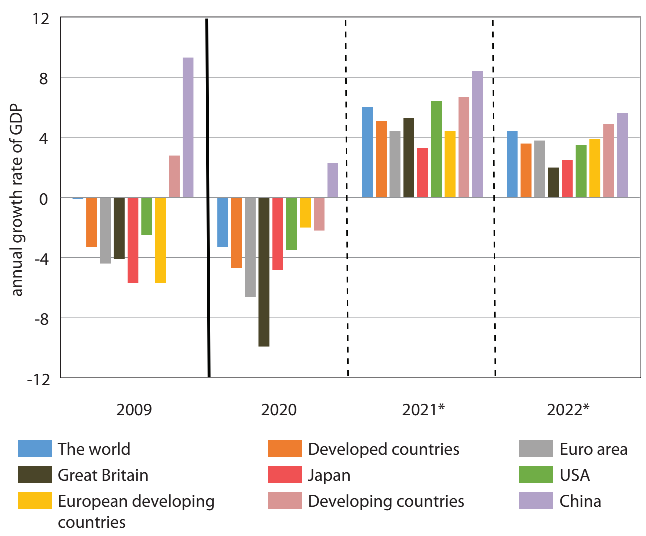
The deterioration of epidemiological situation in the United States in the second quarter of 2020 led to a strong contraction in economic activity. Following a sharp decline in the second quarter, despite the continuing unfavourable epidemiological situation throughout the summer, the US economy recovered in the third quarter mainly thanks to the FED's highly expansionary monetary policy measures, as well as significant fiscal assistance measures of the government. Nevertheless, its economic activity recorded a decline of 2.9% on annual basis and in the third quarter of 2020. In the fourth quarter, the economic recovery recorded a slowdown due to the worsening of epidemiological situation, uncertainties surrounding the US presidential elections, and the failure to reach an agreement on new fiscal assistance package financed from the federal budget. In 2020, the United States recorded an annual decline in economic activity of 3.5%. The US economy grew rapidly in the first quarter of 2021, i.e. at a rate of 6.4% compared to the first quarter of the previous year, and 4.3% compared to the fourth quarter of 2020. The growth was driven by additional packages of fiscal assistance to households and companies and the opening of the economy due to a large vaccination rate and the consequent reduction in the number of those infected with coronavirus.

The first wave of the pandemic hit the EU and euro area countries mainly between March and April 2020 and in majority of countries it was accompanied by strict measures to prevent the virus spread. As a result of the introduced measures, the economic activity of the euro area countries decreased by a total of 15.3% in the first half of 2020. Restraining the pandemic and easing the restrictive measures, which in most countries started in May 2020, led to a strong economic recovery in the third quarter. The second wave of pandemic again caused a slowdown in economic activity in the last quarter. On annual basis, economic activity in the EU and euro area countries decreased by 6.1% and 6.6%, respectively. The decline in economic activity was most pronounced in the countries that were hit hardest by the pandemic, as well as in the countries with developed tourism and a high share of service activities in the national income. This is especially true for countries like Italy, France and Spain, which recorded the largest contraction in economic activity in 2020. In the first quarter of 2021, the euro area countries recorded a further decline in real GDP of 0.6% compared to the previous quarter, and 1.8% compared to the first quarter of the previous year, due to the continuation of the pandemic and the accompanying infection control measures, as well as the insufficient progress of the vaccination process.

The United Kingdom is in the group of developed countries that recorded the largest decline in economic activity of 9.9% in 2020. According to the IMF forecasts for 2021 and 2022, a gradual recovery of the country's economic activity is expected, with growth rates of 5.3% and 5.1%, respectively. The projection of economic recovery is based on a successful immunization process and the fact that in December 2020 the long-awaited trade agreement between the UK and the European Union was finally reached, defining the conditions for future, post-Brexit relations and cooperation between the UK and the rest of the EU.

Despite a number of fiscal and monetary policy measures, the decline in global economic activity was much stronger compared to the previous crisis of 2009, with a strong annual decline in GDP recorded in all the leading world economies except China (Graph 1.1).

Graph 1.1: Annual Growth Rates of GDP, by Groups of Countries



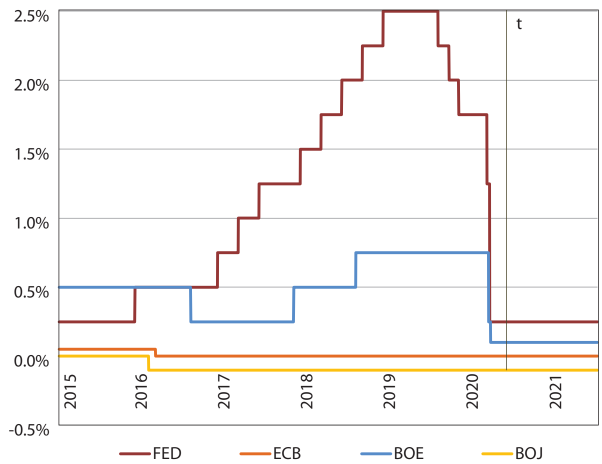
Source: IMF (WEO, April 2021)

In order to mitigate the pandemic's negative consequences on economic activity and stabilize the financial markets, the world's leading central banks pursued a highly expansionary monetary policies in 2020. In March 2020, the FED reduced the benchmark interest rates twice by a total of 1.5%, to the target range of 0.0% -0.25%, while the ECB kept the benchmark interest rates at a hitherto record low level. The BoE also cut the benchmark interest rate twice in March by a total of 65 basis points, to a record low of 0.1% (Graph 1.2). In order to ensure liquidity in the system and maintain favourable financing conditions for all economy sectors, the FED and the ECB introduced a number of quantitative easing measures, such as additional emergency programs of purchasing government and corporate bonds and new long-term bank funding operations. Furthermore, they further relaxed the rules on collaterals acceptable in their operations by accepting as collateral both the government and the corporate bonds. FED and ECB also established currency swap lines with a large number of central banks to facilitate their access to dollars and euros, in order to ensure smooth functioning of financial systems of countries dependent on these currencies. Above-mentioned measures, along with the supervisory measures and fiscal stimulus from governments, helped prevent the panic in financial markets that arose after the escalation of the pandemic. Financial markets were stabilized and financing conditions remained relatively favourable for all sectors of the economy.

In accordance with the announced policies and measures, the continuation of expansionary monetary policy of the leading central banks can be expected during 2021 and 2022. In December 2020, the ECB increased the envelope of the emergency purchase program of private and public sector securities, called the Pandemic Emergency Purchase Program (PEPP), by EUR 500 billion, amounting to a total of EUR 1,850 billion, and extended the program until at least the end of March 2022. In 2021, the ECB announced three additional long-term bank refinancing operations under the TLTRO III program, with even more favourable financing conditions. Benchmark interest rates in the first part of 2021 were kept at the same level, with a possibility of further decrease. In 2021, the ECB's monetary policy will focus on maintaining favourable financing conditions and neutralizing the pandemic's negative consequences on inflation. In May 2021, the FED decided to keep the target range of benchmark interest rates and continued the securities purchase program at the same monthly dynamics until the target inflation rate and the maximum employment rate were reached. The FED decided to aim to achieve inflation moderately above 2.0% for a certain time, so that the inflation averages 2.0% over time and long-term inflation expectations remain at the target level.

Prolonged periods of low interest rates and the implementation of expansionary monetary policy could pose a risk in an environment of accelerated economic growth, leading to a sudden rise in inflation and a sharp deterioration in financing conditions and ultimately adversely affecting the expected recovery of global economy.

Graph 1.2: Trends of Benchmark Rates of Leading Central Banks



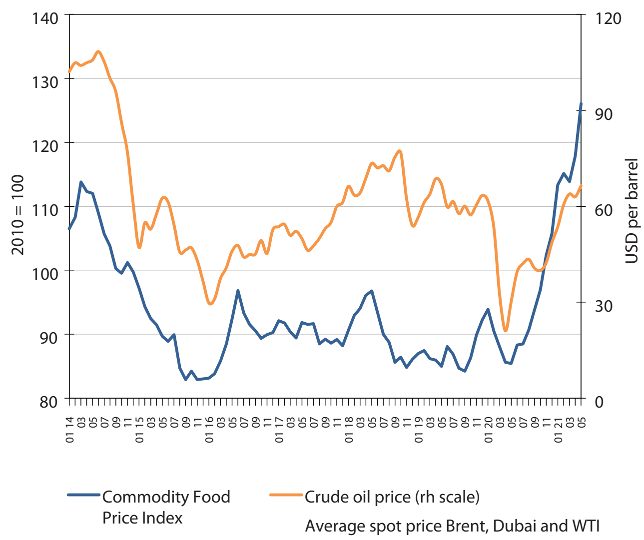
t - the World Health Organisation declared the coronavirus pandemic

Source: FED, ECB, BOE, BOJ
Note: The graph shows the upper limit of interval of the FED becnhmark rate.

The decline in economic activity and crude oil prices affected further weakening of global inflationary pressures in 2020. The average price of crude oil at global level decreased by about 20.0% in 2020 compared to the previous year, influenced by the pandemic that undermined global economy and reduced the demand for this energy source (Graph 1.3). Following a sharp decline in the first four months, the price of oil partially recovered later in the year, but remained below pre-pandemic levels until the end of the year. At the end of April, the price of oil was about USD 20 per barrel, and then rose to approximately USD 40 per barrel by the end of June. Oil prices continued to rise in the third quarter as a result of an agreement between OPEC member states and other oil producers to cut production due to the decline in demand. Furthermore, shrinking crude oil inventories in the United States, the loosening of the restrictions following the first wave of lockdowns and a gradual recovery of global economic activity contributed to rise in oil prices. At the beginning of the fourth quarter, oil prices fell to USD 39 per barrel due to a resurgence in the number of coronavirus cases and the introduction of new measures to prevent the virus spread. In the last two months of 2020, oil prices showed a tendency to rise, largely due to the news on introduction of coronavirus vaccine, an increase in quotas for oil imports to China in 2021, and a reduction of crude oil inventories in the United States. In the first three months of 2021, oil prices continued to rise, reaching around USD 63 per barrel, mainly due to the increased optimism about vaccination, expectations that the US stimulus package would increase demand for oil and due to the decision of major OPEC oil producers to reduce the volume of supply.

Following their decrease in the first four months of 2020, the prices of other raw materials excluding energy products increased later in the year due to the easing of coronavirus preventive measures. The most pronounced increase of prices was recorded for metals, as result of the reactivation of industrial production around the world. Food prices also recorded a constant rise since June 2020, and in March 2021 reached their highest level in almost seven years. The largest increase in food prices was recorded in the vegetable oils, meat and dairy products group, as a reflection of increased demand and, in particular, the increase in Chinese imports.

Graph 1.3: Food and Oil Prices

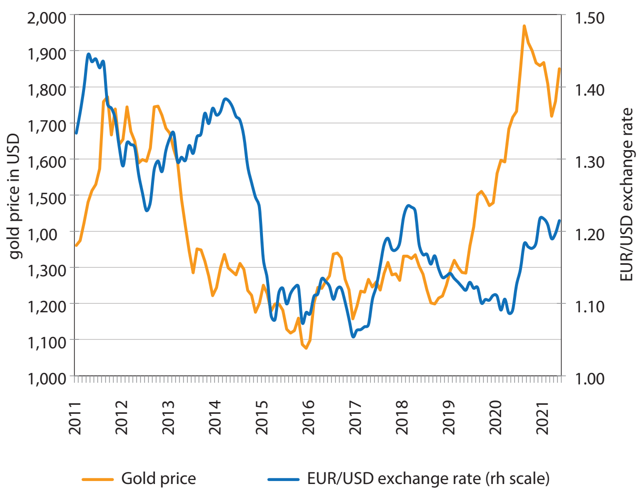


Source: The World Bank

Trends in the world foreign exchange markets in 2020 were also marked by unfavourable events in the international environment (Graph 1.4). Strengthening of the investors' propensity for safe liquid assets boosted the demand for US dollar in the first half of the year, causing the dollar to appreciate against the euro and most currencies worldwide. At the end of April 2020, the average dollar exchange rate against euro was 1.09 EUR/USD, i.e. 2.3% less than in December 2019. Indications of economic recovery at the end of the second quarter and uncertainties about the results of the US elections contributed to the weakening of dollar against euro in the second half of the year, while on the other hand, the agreement on the establishment of EU recovery fund contributed to the strengthening of the euro. At the end of September 2020, the dollar exchange rate against euro was 1.17 EUR/USD, and in December, for the first time since April 2018, it exceeded the level of 1.22 EUR/USD, under the influence of stronger economic indicators of the euro area and investors' hopes for progress in trade negotiations between the UK and the EU. The euro to pound exchange rate also strengthened, with significant fluctuations throughout 2020, primarily due to varying expectations about Brexit. In the first part of 2021, the dollar strengthened against the euro, due to higher hopes for the approval of the announced stimulus package in the US, vaccination progress and the growing expectations of global post-pandemic recovery.

The price of gold in 2020 recorded the largest increase in the last ten years due to an increased demand for safe investments. The average price of gold in 2020 was USD 1.770 per ounce, which was an increase of 27.1% compared to the gold price in 2019. In early 2021, gold prices tended to fall due to progress in coronavirus vaccinations, better economic indicators suggesting global recovery after the pandemic, strengthening of dollar, and rising yields on US government bonds.

Graph 1.4: Gold Price and EUR/USD Exchange Rate



Source: The World Bank, Bloomberg

1.2. Survey of the main risks in the EU and the euro area

The biggest risk in 2020 was the sudden outbreak of coronavirus pandemic and its consequences for global economy and international financial markets, as well as for the economic growth in the EU and the euro area. Geopolitical risks were also pronounced throughout 2020 due to uncertainty about reaching a final agreement on the regulation of trade relations between the UK and the EU, but were significantly reduced by the end of the year.

The key risks to financial stability are: a strong growth in fiscal imbalances in the euro area, which again poses a challenge to the sustainability of public debt of some member states; over-indebtedness of non-financial companies and households and an increased risk of irregular debt servicing due to rising interest rates and cancellation of the government's support measures; low bank profitability and growth in provisions for the expected credit losses; and a high exposure of banks to the government sector.

1.2.1. Effects on the banking sector

The banking sector successfully absorbed the risks from macroeconomic environment in 2020, largely due to a high level of capitalization and liquidity. Unlike the financial crisis of 2008, during the corona crisis the euro area banking sector was able to absorb macroeconomic shocks thanks to the capital and liquidity buffers that banks in the EU and the euro area formed in the previous period as requested by regulators. The euro area banks were adequately capitalized, and the common equity tier ratio (CET1) for systemically important institutions at the end of the fourth quarter of 2020 was 15.62%, which was an improvement compared to the end of the previous year. Capitalization indicators were, on one hand, negatively affected by the decline in bank profitability, but on the other, they were positively affected by the increased share of low-risk assets due to increased exposure to the government sector.

Banks faced a significant decline in profitability during 2020, due to the increased provisioning costs for expected credit losses and lower interest margins in the conditions of low interest rates. The unfavourable macroeconomic environment, i.e. the crisis caused by the coronavirus pandemic, has stopped the trend of banks' asset quality improvement in recent years. Increased solvency risk of the corporate sector and a higher credit risk in the household sector affected the deterioration of the loan portfolio quality, the reduction of interest income, and the increase in the cost of provisions. The total return on equity (ROE) of the euro area systemic banks was 1.53%, i.e. a significant decrease compared to the previous year when it accounted for 5.16%. In the absence of economic recovery in 2021, with an extended period of low interest rates, as well as the expiration of government guarantees on loans, the profitability of banks could be further jeopardized.

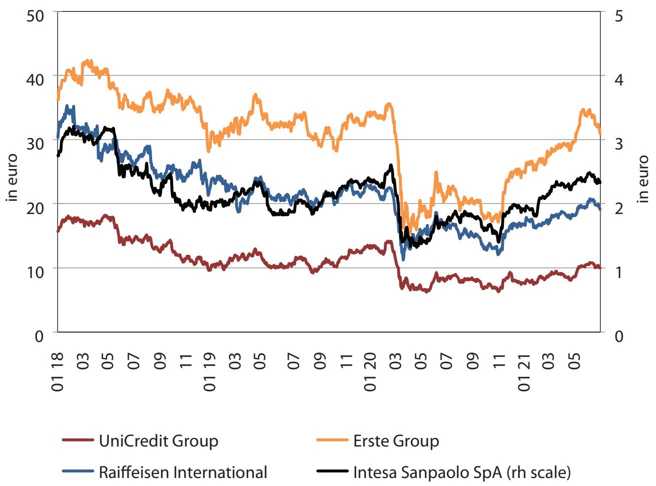
In April 2020, the European Commission adopted a package of measures that rapidly amended banking regulations allowing banks to release the formed capital buffers in order to maximize the ability of banks to continue lending and to absorb losses associated with the coronavirus pandemic. As part of these measures, most euro area member states offered government guarantees on loans to the corporate sector under more favourable lending conditions, which ensured an uninterrupted lending to the non-financial corporate sector that had the greatest financing needs, which led to a significant increase in lending to this sector. A higher corporate lending could imply additional credit risk exposure, especially for banks in the countries with significant levels of NPLs in the sector. Thanks to much more favourable lending conditions and government guarantees and moratoriums on loan repayments, credit risk in the non-financial corporate sector has not yet materialized, but after the expiration of the measures in 2021, a significant increase in non-performing loans can be expected.

During the crisis, banks also significantly increased their exposure to the government sector, which had increased its financing needs. Volatility of bond yield in countries with high public debt creates an increased market risk for the banks with significant exposures to this type of financial assets.

The credit ratings of most euro area banking groups operating in BH remained unchanged, but the outlook for long-term bank borrowing was revised downwards, due to increasing risks in the euro area banking sector stemming from the economic and financial implications of the pandemic. In April 2020, the rating agency Fitch downgraded Italy's credit rating by one notch to BBB-, while the credit rating of Italian banking groups operating in BH (Intesa Sanpaolo and UniCredit S.p.A.) was also downgraded to BBB-, in accordance with the country's rating.

Prices of shares of euro area banks recorded a significant decline in 2020 due to the recession and the decline in bank profitability. When it comes to banking groups operating in BH, the largest decline in share value was recorded by UniCredit S.p.A, i.e. 41.0% compared to the previous year, followed by Erste Group and Raiffeisen Bank International AG by 25.0%, while Intesa Sanpaolo SpA recorded a decrease in share value of 18.0%.

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



Source: Bloomberg

1.2.2. Effects on the real sector

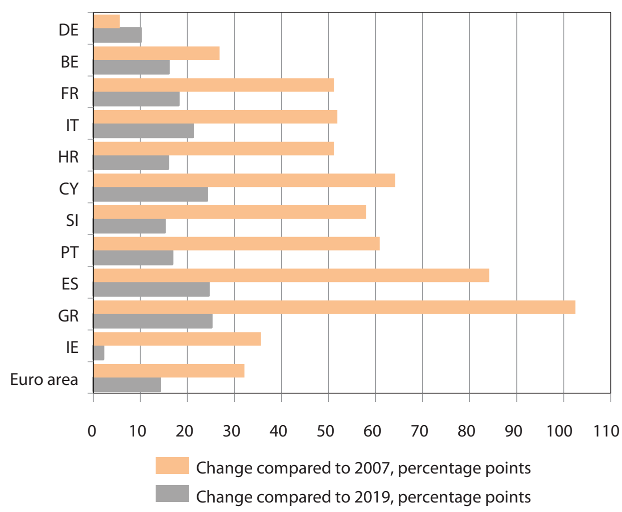
In 2020, there was a sharp contraction in the economic growth of the euro area countries. The contraction in economic activity was most pronounced in the second quarter of 2020, in countries that suffered the worst deterioration of epidemiological situation and the ones where services account for a large share of GDP. Significant decline in consumption and unfavourable trends in the labour market, along with a hindered provision of certain services that require close physical contact due to restrictions on movement and business operations, led to a significant reduction in volume of service and trade activities in the first part of the year. Household consumption in the euro area decreased by a total of 8.0% during 2020. Due to the introduction of lockdown measures and the consequent sharp drop in revenues, companies postponed their investment decisions, wherefore the investments were significantly reduced throughout the year. The decline in economic activity was also significantly affected by the slowdown in foreign trade of the euro area countries as a result of decrease in demand and supply. Lockdown measures in China also reduced the euro area's foreign trade in the first quarter of 2020, while the preventive measures against the virus spread in Europe led to a drop in imports and exports in the second quarter, with exports hit hardest by temporary closure of businesses. In the third quarter, there was a partial recovery of trade flows, which was slowed down by the end of the year due to a new wave of pandemic in the fourth quarter.

Fiscal support measures implemented by euro area member countries to support their economies significantly offset the negative economic consequences of the pandemic, causing, on the other hand significant increase in member states' budget deficit and public debt in 2020[1]. Budget deficit of the euro area countries in 2020 accounted for 7.2% of GDP compared to 0.6% of GDP in 2019. Public debt of the euro area member states increased from 83.9% in 2019 to 98.0% at the end of 2020. Given that not all member states are equally affected by the pandemic, nor have the same capacity to help their economies, the differences between euro area member states have been further deepened.

[1] In March 2020, the EU activated an escape clause allowing derogation from the rules of the Stability and Growth Pact, which ensure fiscal discipline of the member states, according to which the general government budget deficit may not exceed 3.0% of GDP and the public debt may not exceed 60.0% of GDP.

The sustainability of public debt of some euro area member states that were over-indebted even before the crisis (Greece, Italy, Portugal, Belgium, France, Spain and Cyprus) is brought into question. The risk of spillovers through the interbank exposure channels in the euro area was further increased due to the high exposure of banks to the domestic government sector, especially in Italy.

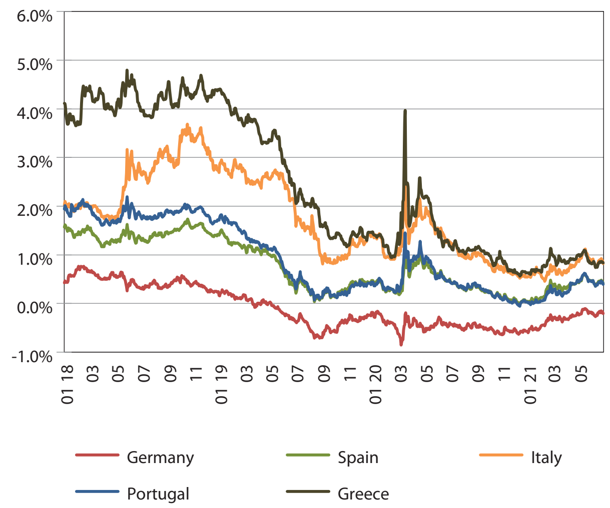
Graph 1.6: Public Debt Changes as a Per Cent of GDP in 2020



Source: EUROSTAT, CBBH

The deteriorating economic conditions at the end of the first and beginning of the second quarter of 2020 resulted in a significant worsening of financial market conditions, which was reflected in a sharp rise in government bond yields in most euro area countries and an increase in spread between yields on bonds of euro area periphery countries and yields on German government bonds. Yields on German 10-year government bonds at the end of April 2020 decreased by 400 basis points compared to the beginning of the year, to the level of -0.586%. At the same time, yields on Italian bonds, where the fastest growth of new coronavirus infection cases was recorded in Europe, increased by 350 basis points compared to the beginning of the year, to 1.763% at the end of April. Yields on ten-year bonds in Greece, Spain and Portugal also rose strongly over the same period (Graph 1.7). Thanks to the extremely expansive monetary policy of the world's leading central banks, financial markets were stabilized very quickly, and financing conditions remained relatively favourable. The stabilization of euro area government bond yields in the second half of 2020 is the best reflection of favourable financing conditions in the markets, despite the fact that fiscal positions of many countries have deteriorated significantly due to the declining budget revenues, on one hand, and a sharp increase in expenditures to combat negative economic consequences of the pandemic, on the other. At the end of December, yields on Italian ten-year bonds were 0.534%, while yields on German ten-year bonds were -0.569%, whereby the bond yields spread was reduced from 2.35% at the end of April to 1.1% at the end of 2020.

Graph 1.7: Yield of Ten Year Government Bonds



Source: Bloomberg

During 2020, the S&P rating agency lowered the credit rating outlook for Italy, Spain, Portugal and Greece, as a result of the pandemic's significant impact on economic growth and finances of the euro area countries. In April 2020, the rating agency Fitch also downgraded Italy's credit rating by one notch, i.e. to BBB- with a stable outlook. Italy's public debt, expressed as a percentage of GDP, rose to 155.8% at the end of 2020, making Italy the second most indebted country in the euro area after Greece. However, due to a significant support from the ECB and the European crisis recovery program, which will enable Italy to receive favourable loans and grants worth a total of 12.5% of GDP, conditioned by the growth-enhancing reforms, the S&P agency raised Italy's credit rating outlook in October 2020 from negative to stable.

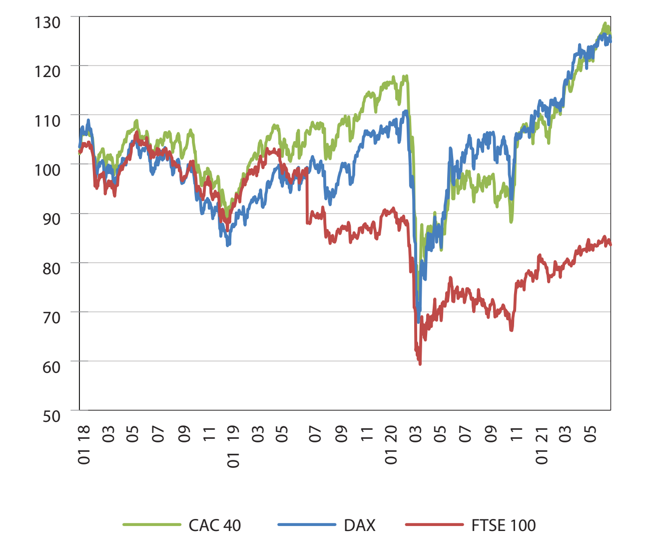
In April 2021, S&P upgraded Greece's long-term credit rating from BB- to BB with a positive outlook. The rating upgrade reflected the expectation that government's policies would accelerate structural reforms and budget consolidation, supported by significant funds from the EU crisis recovery fund in the form of grants and loans.

At the end of the first quarter of 2020, stock exchange indices recorded a sudden and sharp decline and lost over 35.0% of their value compared to the end of 2019 (Graph 1.8). Thanks to monetary and fiscal policy measures that led to the stabilization of financial markets and a strong recovery in economic activity after the lifting of restrictive measures in May 2020, the value of the main stock exchange indices of the euro area gradually recovered. The main index of the German stock exchange DAX recorded an annual growth of 3.5%, while the French CAC 40 failed to fully compensate for the lost value by the end of the year, and recorded a decline in value of 7.1%. The British FTSE 100 ended the year with the largest annual drop in value, i.e. 14.3%, which was further affected by uncertainties in resolving the BREXIT issue, which persisted until the very end of the year. The observed euro area stock indices continued to grow in the first half of 2021.

market caused by the pandemic have significantly affected young people who are mostly employed on temporary basis, seasonal workers, and people with a lower level of formal education. The youth unemployment rate increased by 1.8 percentage points compared to the previous year.

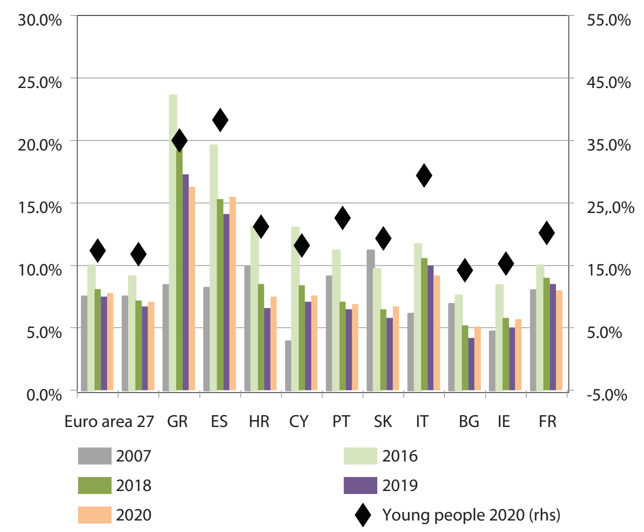
Although the pandemic had a limited impact on the growth of the unemployment rate, the consequences could reflect on the growth of long-term unemployment in the EU and the euro area. In the coming period, the long-term consequences for labour mobility, as well as the increasing acceptance of digitalisation, could also lead to a significant redistribution of jobs. The shock caused by the coronavirus pandemic accelerated structural changes in the economy, which will, in turn, probably trigger disparities between the workers' qualifications and the job requirements, leading to further training of workers for their current jobs.

Graph 1.8: Trend of the Main Market Indices



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

Graph 1.9: The EU Unemployment Rate

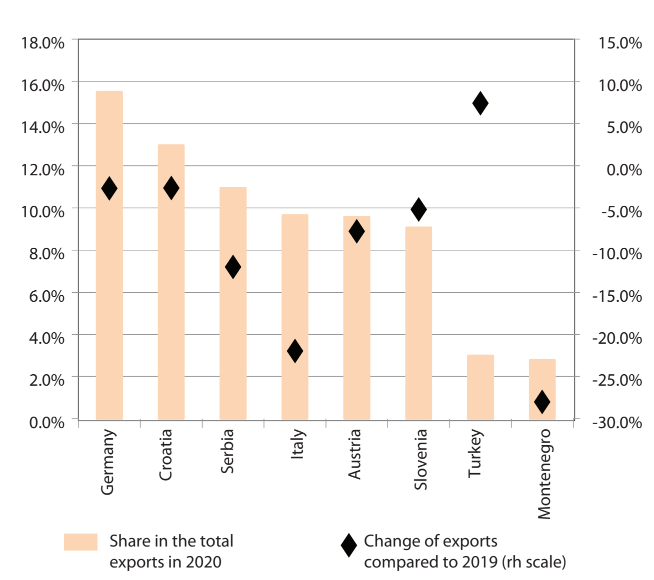


Source: EUROSTAT

Fiscal support measures of the euro area member countries, which largely targeted the labour market through job preservation programs and corporate loan guarantees, have contributed to much lower job losses as compared to the previous economic and financial crises. Labour market conditions in the EU and the euro area weakened during 2020, but compared to the sharp and rapid decline in economic activity in the first half of 2020, the decline in employment in the EU and the euro area was much smaller. The unemployment rate in the euro area countries at the end of 2020 was 7.8% and increased by 0.3 percentage points compared to the previous year. The changes in the labour

The global pandemic outbreak had a very negative impact on global trade, thus affecting the foreign trade of Bosnia and Herzegovina. During 2020, all the BH's major foreign trade partners recorded extremely unfavourable economic trends. Indicators of the BH foreign trade show an unfavourable trade situation, caused by the pandemic, primarily through the reduction of exports to the markets of major trading partners. In 2020, total exports from BH amounted to KM 10.5 billion and recorded a decrease of 8.5% compared to the previous year, while total imports amounted to 16.9 billion, i.e. 13.45% less than in the previous year. The foreign trade coverage ratio increased compared to the previous year and amounted to 62.3%, while the foreign trade deficit amounted to KM 6.4 billion compared to 8 billion in 2019. Total exports to EU countries decreased by 8.3% compared to 2019 and amounted to KM 7.6 billion. Exports to almost all of BH major foreign trade partners BH decreased, with the exception of Turkey, exports to which increased by 7.4% compared to the previous year.

Graph 1.10: BH Exports to the Main Trade Partner Countries



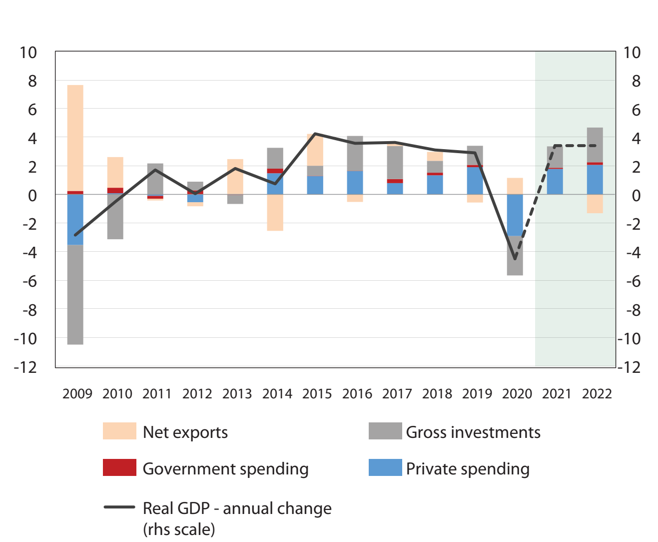
Source: BHAS, CBBH

2. Macroeconomic Trends and Risks in BH

The coronavirus pandemic had a strong adverse effect on global economy, BH being one of many countries of the world that recorded negative economic growth in 2020. Bearing in mind that this global economic recession was triggered by the outbreak of a pandemic, and not by economic or financial imbalances, the risks arising from it are specific in relation to the previously recorded periods of negative economic growth (2009 and 2012). Therefore, this crisis involves a combined shock both on, the aggregate supply and the aggregate demand side, which, due to its atypical nature, significantly complicates the measurement and projection of future trends and risks. However, BH economy, like most of the world's economies affected by the pandemic, should record a U-shaped recovery if the optimism about vaccination and the fight against the pandemic materializes during 2021.

The decline of economic activity of 4.3% in 2020 represents the largest contraction in the country's real GDP in modern history, but it is still smaller than originally expected and smaller than the EU average. The decrease in economic activity was particularly pronounced during the second quarter (-9.0% annually), i.e. during the period when the most restrictive measures in combating the pandemic where in place, marked by a complete stagnation of activity in many sectors of the economy. Private consumption and gross investments had an almost equal impact on the economic decline in 2020 (a contribution of 2.9 percentage points for private consumption and 2.7 for gross investment). On the other hand, through various types of borrowing, BH authorities have managed to significantly offset the sharp decline in public revenues and keep government spending at the previous year's level. Thanks to a significantly larger decline in the imports of goods and services compared to the exports, the net trade balance of goods and services recorded a positive contribution to GDP in 2020, i.e. 1.2 percentage points (Graph 2.1).

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

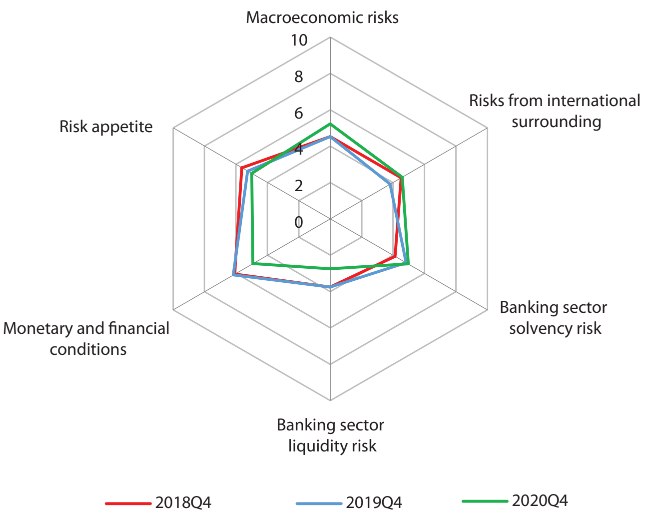


* For 2021 and 2022 projections by CBBH
Source: BHAS, CBBH

Text Box 1: Assessment of main macro-financial risks to financial stability

The assessment of major macro-financial risks that may occur in the real, fiscal, external or financial sector, or as a result of their interconnection, as well as an assessment of monetary and financial conditions and risk appetite, was made on the basis of a quantitative tool (Dashboard), and was first published in the Financial Stability Report 2017. Risk assessment is based on a simplified standardization and ranking of positions of a comprehensive set of indicators, representing the basis for *quantification of synthetic assessment of the degree of risk coming from different segments of the system. A score ranging from 1 to 5 represents a very low to mildly moderate degree of risk exposure; a score ranging from 5 to 8 stands for a moderate to mildly high levels of risk exposure; a score ranging from 8 to 10 stands for a high degree of risk exposure. The ranking score for monetary and financial conditions and risk appetite is moving in the opposite direction, i.e. increased distance from the centre of the Graph indicates an improvement in monetary and financial conditions, i.e. increased investors' propensity to take risks.*

Graph TO 2.1: Map of Macrofinancial Risks



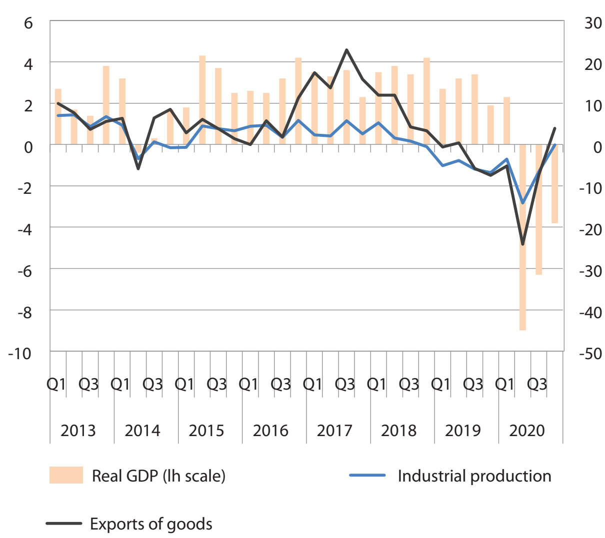
Source: CBBH

The deliberate slowdown or interruption in the global flow of goods and services, in order to prevent the spread of coronavirus pandemic, has caused a record decline in economic activity in 2020. Exposure to macroeconomic risks increased significantly compared to the previous year, as a result of reduced economic activity and a significant decline in GDP. The most significant decline in real gross added value was recorded due to a sharp fall in industrial production, and in the service sectors. The general price level trends indicate a deflation on the domestic market, while public investments decreased significantly compared to the previous year and the number of unemployed increased in the labour market. Governments adopted a series of measures to mitigate the pandemic's effects on the economy, which involved reallocation of budget funds and significant increase in expenditures, while facing a sharp decline in public revenues. Entity budgets suffered an enormous pressure in terms of financing, which required a significant increase in external borrowing by the government sector. The current account deficit increased and the balance of payments position deteriorated compared to the pre-pandemic period.

Exposure to risks from the international environment increased compared to the previous year, due to the rise in uncertainties surrounding the global deterioration of economic trends and the stagnation of economic and social activities in the most important BH's foreign trade partners. Despite the unfavourable business circumstances, almost all indicators of financial health improved in 2020. The BH banking sector continued to maintain high ratings in the liquidity segment. The overall liquidity rating improved despite the deterioration of the "liquid assets to short-term financial liabilities" indicator, affected by the growth in deposits, primarily in domestic sectors, which significantly affected the improvement of the indicator "deposits by loans". Total assets of the banking sector recorded the lowest growth in the last eight years, under the influence of decreased credit growth in 2020. The banks' balance sheets recorded a significant decline in deposits with foreign banks, with a simultaneous increase in cash and funds on CBBH reserve accounts and a significant decrease in liabilities to non-residents. The net foreign assets growth trend recorded in the previous years continued in 2020, as a result of a decrease in foreign liabilities of the banking sector due to a decrease in deposits and credit liabilities to other non-residents and sister companies, while foreign assets of commercial banks remained at the 2019 levels. Exposure to the government sector has increased due to the increased purchases of entity securities. Weak credit activity and reduced profitability led to an increase in the level of risk; however, the higher capital adequacy softened the overall assessment of solvency risk, which did not change significantly compared to the previous year. Adequate capital positions of banks and significant liquidity are key factors in mitigating adverse consequences of the pandemic in the banking sector. The lower real interest rate affected the improvement of monetary and financial conditions.

Exports are the first branch of the economy to show signs of recovery and to signal a gradual exit from the recession. Thus, the exports of goods recorded annual increase in the last quarter of 2020, and the positive trend spilled over into the industrial production (Graph 2.2). However, the trade risk will remain largely present as long as the pandemic remains highly unpredictable. From the aspect of financial stability, extended restrictive measures or reintroduction of rigid movement restrictions will affect the solvency of the manufacturing sector, thus creating additional risks for both the labour market and the banking sector through the deterioration of credit portfolio quality. Having in mind that the BH's production sector is mostly oriented to the EU, commodity risk is predominantly related to this market, namely Germany, Italy, Slovenia and Croatia as markets that generate 62.0% of total exports of goods from BH. A decline in exports would inevitably mean a contraction in industrial production, which is largely export-oriented. Industrial production is one of the key levers of BH economy, with 20.0% share in GDP and 25.0% in the structure of total number of employed.

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



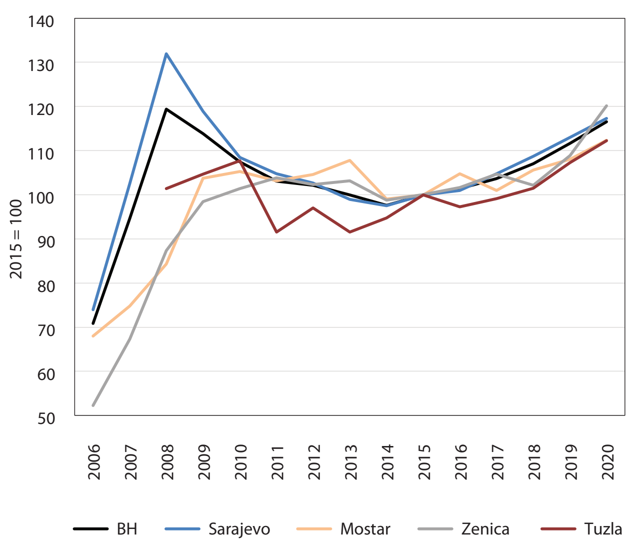
Source: BHAS, CBBH

In 2020, the decline in economic activity was not recorded mainly in those economic areas that did not cease their operations even during the period of most restrictive measures, such as agriculture, financial activities and construction, which is often considered an economic area that can have a significant growth potential on the BH's economic map. The growth of the construction sector was mostly affected by the fact that there was no complete pandemic-driven cessation of activities at infrastructure construction sites involving road constructions (which are mostly financed by loans from international financial institutions, primarily EIB and EBRD).

On the other hand, the restrictions created with the aim of preventing the spread of coronavirus have significantly affected the residential real estate market. Namely, after hitting a record-high in 2019, the real estate market faced a decrease in supply and demand. The number of completed apartments in 2020 was lower by 16.5% compared to the previous year and it hit its record-low since 2015. The decline in the number of completed apartments was accompanied by a decline in sales volume. The surface area of sold residential space of new construction decreased by 15.3%, while the number of sold residential units was 6.4% lower than in 2019. In 2020, there was also a significant decrease in the turnover of old construction real estate, as compared to the previous years. Compared to 2019, the volume of old construction real estate turnover, measured by the area of sold residential space, was lower by 28.2%. A particularly sharp decline was recorded in Zenica and Mostar, where the number of apartments sold was halved.

On the other hand, real estate prices were not significantly affected by the recessionary trends, whereby the effect of economic stagnation on the real estate prices can be expected only if the recession lasts longer than currently anticipated. Despite the decline in the old construction sales, prices in this segment increased compared to the previous year, in all cities covered by the real estate price index (Graph 2.3). It should be noted that the investing in real estate is still considered one of the safest long-term investments in the BH's economic market, wherefore its prices react with a significant delay in relation to other segments of BH economy.

Graph 2.3: Real Estate Price Index, Annual Average Values, 2015 = 100



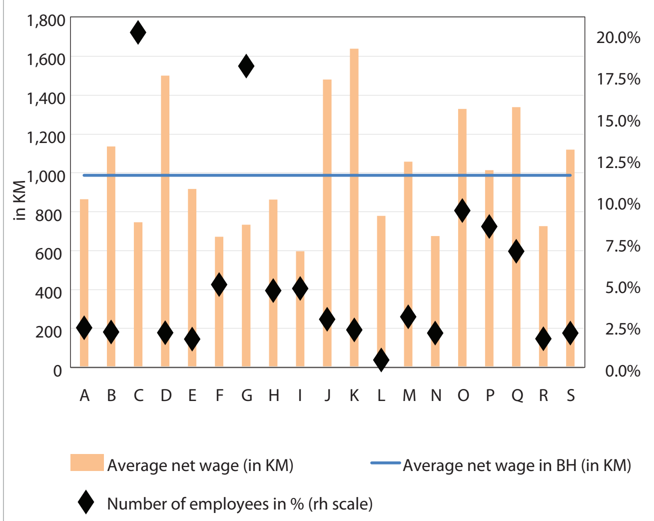
Source: CBBH

Optimism about the real estate market recovery in the coming years still significantly outweighs the potential risks to which this market is exposed. Housing loans were still expanding, having exceeded the share of 10.0% of total loans in the BH banking market by the end of 2020, for the first time. At the same time, the housing loan portfolio quality continued to improve, which, along with the additional effect of previous year's write-offs, resulted in a decrease in the share of non-performing loans in total housing loans to only 3.1% (from 4.1% at the end of 2019). The interest rates on housing loans did not record growth either, so in the first quarter of 2021 the average weighted interest rate on housing loans was at the level of 3.7%. In addition to the economic recovery reflected in the gradual growth of private consumption, remittances and lending, we expect that the real estate market will again be one of the generators of overall economic activity in the country. At the same time, a possibly slower economic recovery than expected, or another shock caused by new restrictive measures, would certainly result in a reversal of the trend in the real estate market, when the continued decline in sales would be accompanied by a decline in real estate prices for the first time since 2009.

Private consumption, which was a key category behind the economic downturn, was first affected by the measures that predominantly targeted trade and the service sector, while the household purchasing power was subsequently reduced through a wide range of channels of influence (from a reduced remittance inflows to a reduced lending to households). However, the official labour market statistics did not deteriorate dramatically despite the severe economic shock. Namely, the increase in the average net salary of 3.9% and the growth of unemployment rate by only 20 basis points (from 15.7% to 15.9%) certainly do not indicate significant shocks in the labour market in 2020. However, a more detailed insight into the structure of labour market indicate that the situation on labour market is still unfavourable, with a wide range of risks that may arise from it.

In terms of the economic and financial stability of BH, labour market is particularly important from several aspects: direct impact on the purchasing power and private consumption (indirect impact on the stability of public finances), impact on the price levels (inflation) through domestic demand, and impact on the credit levels and deposits in the banking sector (banking finance). These risks were pronounced even before the pandemic outbreak, and are expected to prevail in the medium term. The statistical increase in average net wages in 2020 was predominantly the result of increase in the minimum wage in the RS, on one hand, and a decline in low-skilled employment (below-average wages), on the other. Namely, 60.0% of employees work in economic sectors where the average net salary is below the overall average (Graph 2.4), which leaves little room for optimism that the presented statistical growth of net salaries will have a positive impact on the total purchasing power of BH citizens. Purchasing power still depends significantly on the inflow of remittances from abroad, which in 2020 amounted to KM 2.4 billion or 7.0% of GDP, which is a record low volume of personal transfers relative to GDP. A decrease in lending created additional pressure on the overall consumer dynamics in BH, the slowdown of which is reflected in the growth of household deposits on bank accounts.

Graph 2.4: Labour Market at 2020 End



Source: BHAS, CBBH

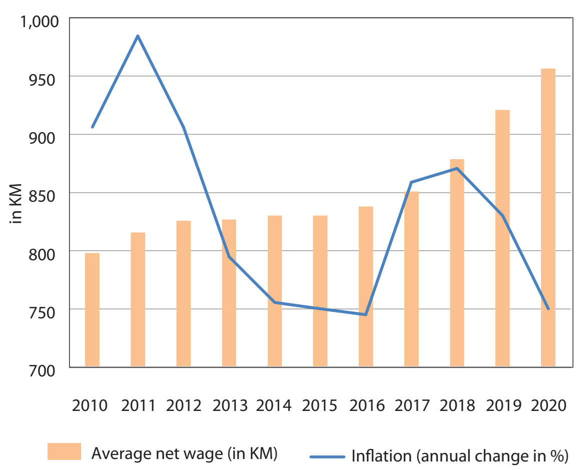
Legend:	
A	Agriculture, Forestry, Fishing
B	Mining and Quarrying
C	Manufacturing Industry
D	Electricity, Gas, Steam Production and Supply and Air Conditioning
E	Water Supply; Sewerage, Waste Management and Environment Remediation Activities
F	Construction
G	Wholesale and Retail Trade, Repair of Motor 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

Bearing in mind that the labour market will need a longer time to adapt to the new economic conditions, and that restrictive measures are still in force in many areas (especially in the catering), a further growth or, at best, a stagnation of the unemployment rate can be expected in 2021, wherefore the labour market will continue to be a source of potential financial risk. A somewhat longer period of economic stabilization will be needed to reverse the trend and strengthen the labour market, which is not likely to happen before 2022.

The slowdown in economic activity and the decline in household consumption also affected the consumer prices, which have been in the deflation zone again since April 2020 (Graph 2.5). The total decline in consumer prices in 2020 was -1.0%, i.e. the first annual deflation rate in BH since 2016, when the four-year deflationary trend in BH was interrupted (2012-2016).

However, the fall in consumer prices was not widespread among the categories of the consumer price index, so the deflation was a result of decline in only 4 categories. The risks related to consumer prices in 2021 were largely balanced, so movements in both directions from the projected inflation rate of 0.5% are possible. A higher growth in oil and food prices on global market would certainly push the consumer prices in BH deeper into the inflationary territory. On the other hand, mainly a deflationary pressure can be expected from the demand side.

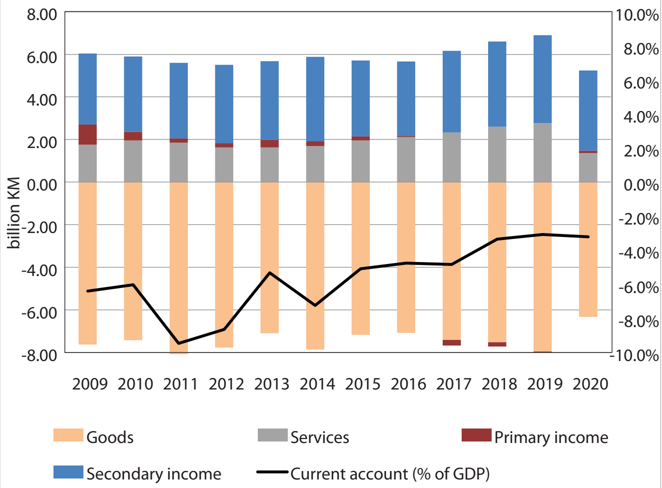
Graph 2.5: Net Wages and Inflation



Source: BHAS

The current account deficit did not grow to the extent initially expected, and remained at approximately the same level as in the previous year (KM 1.09 billion or 3.2% of GDP). However, the country's external vulnerability arising from the balance of payments position is somewhat higher than in the previous year, as the current account structure was characterized by the strong reduction of the trade deficit gap on one hand, but also by the strong deterioration of the key surplus categories such as services and secondary income on the other (Graph 2.6).

Graph 2.6: BH Current Account Structure



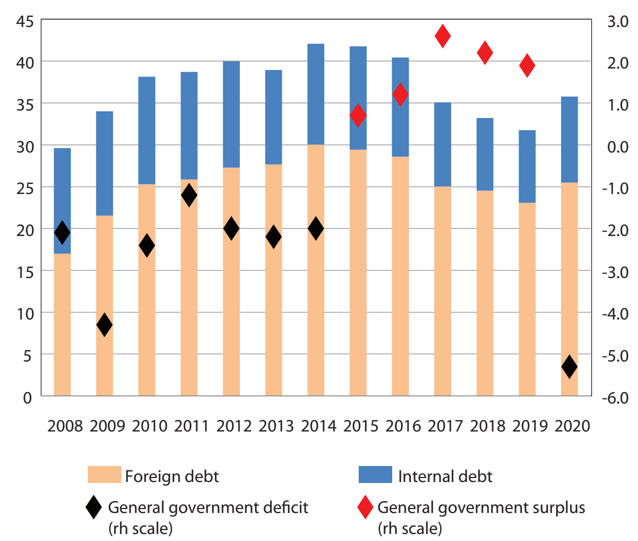
Source: BHAS, CBBH

On the other side of the balance of payments, the sources of financing on the financial side of the balance of payments still significantly exceed the realized current account deficit, so the total balance of payments surplus is unquestionable. It should be noted that the trend was reversed in the structure of net foreign borrowing, that is, other investments increased after two years, as affected by the net borrowing of the government sector. On the other hand, the inflow of foreign direct investments was slightly lower compared to the previous year and amounted to KM 645.4 million or 1.9% of total GDP.

Given the positive macroeconomic expectations for 2021, and that the biggest economic shock caused by the coronavirus pandemic is behind us, the medium-term risk of difficulties in financing of the current account deficit has been significantly reduced, although certain risks are still present. In 2021, a continued decrease of the trade deficit can be expected, which in 2020 fell to a record low value of 18.6% of GDP, but this time due to a somewhat faster recovery of exports compared to the imports of goods. This trend is already observable in the first quarter of 2021 with a 16.6% increase in the exports of goods compared to 2.7% increase of the imports of goods. On the other hand, a recovery in services still cannot be expected, given that there is still a long way before a full normalization, i.e. unrestricted movement of people and tourist arrangements. Therefore, we cannot expect a significant shift in the current account balance beyond the usual limits seen in previous years. A significant pressure can be expected on the financial account side, through a continued reduction of foreign direct investments due to the unfavourable macroeconomic climate and the continuing uncertainties, wherefore we may expect new borrowings and the public debt growth in 2021.

It was the increase in public debt that marked 2020 from the aspect of financial stability. After BH faced the first wave of coronavirus pandemic at the end of the first quarter of 2020, a number of restrictive measures were introduced at various levels of government with the aim to slow down, prevent and control the virus transmission. In parallel with the introduction of restrictive measures, the authorities at all levels in BH adopted a number of economic measures, including legal solutions, with the aim of helping the economy to overcome the new situation of economic shock. Economy relief funds were mostly provided through external and internal borrowings, given the large decline in source revenues in the budgets at all levels. This led to rise in public debt and fiscal deficit, recorded in BH for the first time since 2014, and therefore, the increase of risks to financial stability arising from the fiscal sector (Graph 2.7).

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



Source: BHAS, CBBH

Due to the country's complex constitutional structure and different competencies, BH did not have a single economic plan or measures for economic recovery. Due to its limited competences, the BH Council of Ministers could do very little, so the entities took a dominant role in implementing the economic measures. However, what is common for all economic measures is that they were financed by new borrowing from both the international financial institutions and the local capital market. The most important borrowing came from the IMF, which approved 333 million euros of emergency aid under the Rapid Financing Instrument (RFI) in April 2020. During 2020, the two BH's entities issued a total of KM 905 million of debt securities on the domestic market, which is the highest value of issues recorded in one year on the local capital market since 2015.

Entities borrowed on the local market under somewhat less favourable conditions in 2020 compared to previous years, in terms of slightly higher interest rates achieved at registered auctions. Still, the banking sector remained one of the largest creditors to the government sector. Exposure to government securities in 2020 increased by KM 402.2 million, i.e. 5.2% of total assets, while commercial bank loans to the government sector recorded a gradual increase in the last three years and accounted for 2.9% of total assets in the BH's banking sector. In the first quarter of 2021, the indebtedness of the government sector with commercial banks further increased due to the increase in debt securities and credit liabilities (Table 2.1).

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

Claims	2015	2016	2017	2018	2019	2020	03 2021
Central government	**0.2**	**0.2**	**0.1**	**0.1**	**0.1**	**11.6**	**13.6**
Loans	0.0	0.0	0.0	0.0	0.0	11.6	13.6
Securities	0.2	0.1	0.1	0.1	0.1	0.0	0.0
Entity level government	**1,589.6**	**1,633.3**	**1,624.8**	**1,735.3**	**2,006.8**	**2,439.4**	**2,543.6**
Loans	600.9	424.6	410.0	517.3	580.1	605.7	640.3
Securities	988.7	1,208.7	1,214.9	1,218.0	1,426.6	1,833.7	1,903.3
Canton government	**209.7**	**218.2**	**206.2**	**160.5**	**127.2**	**90.0**	**82.4**
Loans	209.7	218.2	200.2	154.5	114.5	80.9	73.4
Securities	0.0	0.0	6.0	6.0	12.7	9.1	9.0
Municipality government	**304.5**	**282.2**	**293.1**	**295.6**	**308.7**	**350.7**	**344.0**
Loans	301.9	280.2	291.0	285.7	297.7	341.0	334.2
Securities	2.6	2.0	2.1	9.9	11.0	9.8	9.7
TOTAL	**2,103.8**	**2,133.9**	**2,124.2**	**2,191.5**	**2,442.7**	**2,891.7**	**2,983.6**
Loans	1,112.5	923.2	901.2	957.5	992.3	1,039.2	1,061.5
Securities	991.3	1,210.7	1,223.0	1,234.0	1,450.4	1,852.6	1,922.1

Source: CBBH

Text Box 2: Measures for stabilisation and support to the economy taken in BH during the COVID - 19 pandemic

The introduction of measures to combat the coronavirus pandemic after the declaration of the state of emergency in BH in mid-March 2020, led to the weakening or complete cessation of activities in many economic sectors, which had strong negative effects on all segments of the domestic economy. The following is an overview of measures taken by governments and regulators to help crisis-affected sectors, which contributed to the maintaining of financial stability.

BH Council of Ministers:

- *exemption from the calculation and payment of indirect taxes and refunds of the already paid indirect taxes on donated equipment and funds for the prevention, suppression and elimination of the coronavirus (COVID-19) epidemic, including medicines and ambulances;*
- *mandatory application of preferential domestic treatment over one year period, starting from 1st June 2020;*

BH Council of Ministers together with entity governments:

- *IMF credit arrangement of KM 330 million for urgent action in combating economic consequences of the pandemic.*

FBH Government

- *reduction of or complete exemption from rent for the use of business premises managed by the Service for Joint Affairs of the Institutions and Bodies of the FBH;*
- *incentives for agriculture; more funds are reallocated for crop sowing;*
- *suspension of deadlines in judicial proceedings during the state of emergency on the territory of FBH;*
- *postponement of forced collection through public sale for the duration of the state of emergency;*
- *establishment of the price control system by limiting the margins in stores and for companies engaged in petroleum products retail and wholesale in;*
- *subsidizing contributions for mandatory insurance;*
- *suspension of the calculation and payment of default interest on public revenues; revocation of the obligation to pay advance profit tax; revocation of the obligation to pay advance income tax on self-employment; termination of the calculation of default interest on late payments in debtor-creditor relations;*
- *Establishment of a Guarantee Fund in the Development Bank of FBH for maintaining and improving the liquidity of companies.*

RS Government

- *urgent payment of tax refunds and contributions for salary increase in 2019;*
- *prolongation of the payment of tax liabilities (profit tax and income tax) through annual tax return for 2019;*
- *undertaking the obligation of the health fund to cover the costs of treatment for all patients, regardless of whether or not they are insured;*
- *committing to pay health and pension insurance contributions to about 40,000 workers directly affected by the government lockdown measures;*
- *payment of minimum wage for the month of April to all employees of the sector affected by the lockdown measures;*
- *establishment of a loan guarantee model;*
- *three-month moratorium on the repayment of principal and interest, along with the repayment period extension*

by three months to legal entities and entrepreneurs whose funds were placed through financial intermediaries or directly from the funds managed by the Investment and Development Bank of Republika Srpska;
- *deferred payment of the first instalment of the real estate transfer tax;*
- *reduction of the annual lump sum amount of income tax.*

The governments of both entities also announced measures titled 'COVID 2'. The second set of measures is aimed at the most affected sectors: tourism, airports, health and the manufacturing industry exports.

Banking agencies

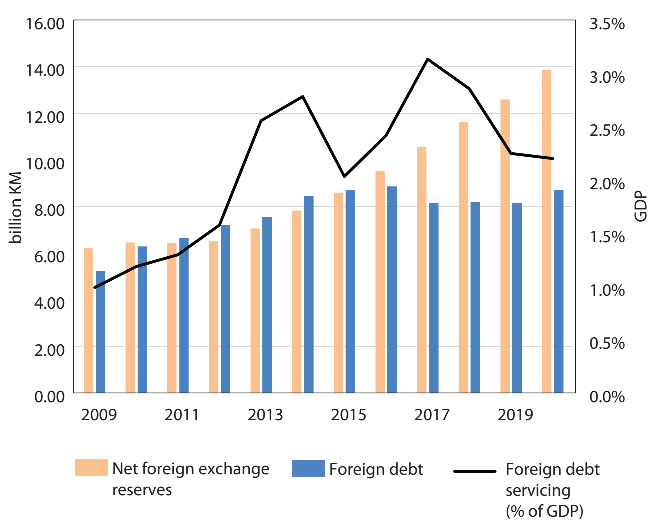
Supervisory measures for banks
- *enabling the approval of moratorium on loans; introduction of a grace period; extension of the repayment deadline; approval of additional exposures to overcome the client's liquidity difficulties; and adjustment of the loan repayment plan in line with revenue reduction;*
- *postponement and/or cancellation of dividend payment for the duration of the decisions on interim measures;*
- *possibility of using a protective layer to preserve capital;*
- *maintaining the existing credit classification for clients when approving special measures;*
- *revision of the maturity compliance limit;*
- *reducing the risk weight for exposures to regional governments;*
- *lower rate of coverage of the expected credit losses for new long-term exposures granted in the function of economic growth;*
- *revision of the limit on the open foreign exchange position in euro currency.*

Supervisory measures for leasing companies and microcredit organizations
- *the possibility of deferral of liabilities, restructuring of liabilities or other reliefs that result in modification of exposures granted to individuals and companies in order to recover from the pandemic's negative consequences on creditworthiness and solvency of the client.*

Consequently, the total public debt of BH at the end of 2020 amounted to KM 12.15 billion, which is historically the highest nominal amount of BH's public debt. Of the total value, 71.3% (KM 8.7 billion) refers to the external debt, and 28.7% (KM 3.5 billion) to the internal debt. The dominant orientation towards external sources of financing in 2020 resulted in external debt reaching the highest level in modern BH history.

With respect to the Maastricht criteria related to public indebtedness, BH is still among the moderately indebted countries with a debt ratio of 35.8% of GDP. However, in 2020, the four-year trend of declining public indebtedness in relation to GDP was reversed, and it is quite certain that in the coming period we can expect a continued growth of external indebtedness, which will certainly increase the country's external vulnerability. As early as at the beginning of 2021, BH signed the Memorandum of Understanding with the European Union for a 250 million euro credit line, through the macro-financial assistance program, while there are likely to be new talks between BH and the IMF on a new financial arrangement worth 750 million euros. The growth of indebtedness with international financial creditors was, among other things, one of the generators of growth of foreign exchange reserves, which at the end of 2020 reached a record nominal value of KM 13.87 billion or 40.8% of GDP, which is historically the highest level of foreign exchange reserves relative to GDP. The importance of the government sector is also reflected in the turnover on domestic capital market. Namely, the government sector remained the dominant player on the two domestic stock exchanges with a share of about 70.0% in the total turnover on SASE and BLSE, primarily through primary public debt issues. Out of the total turnover on BH's stock exchanges, amounting to KM 1.2 billion, only KM 300 million was the turnover in other segments of the market.

Graph 2.8: Foreign Exchange Reserves and Foreign Debt



Source: BHAS, CBBH

Despite the expected growth of public debt and the increased pressure on fiscal stability, it is not very likely that the BH's fiscal position in terms of public debt growth or its servicing, could be significantly undermined. Debt servicing has never been disrupted so far, either due to the high liquidity of budgets themselves or due to the legal framework that prioritizes debt servicing in the revenue distribution. A similar view is taken by the international rating agencies, which have kept BH's long-term credit rating unchanged. The international rating agency Standard and Poor's (S&P) affirmed BH's credit rating of "B" with a stable outlook in early March 2021. Earlier in August 2020, international rating agency Moody's Investor Service also affirmed BH's credit rating at "B3" with a stable outlook. Analysts say, inter alia, that moderate debt levels and fiscal restraint in recent years have provided fiscal space to respond to economic shocks.

Indicators of fiscal stability in 2020 point to an increased risk, which is fully expected given the overall macroeconomic risks that the BH's economy is facing. The main feature of the previous year is the reduced collection of revenues, as a direct consequence of restrictive measures, which ultimately resulted in the first consolidated deficit at the BH level since 2014. Namely, the total budget deficit at the BH level accounted for 5.3% of GDP, thus exceeding the deficit recorded during the 2009 global financial crisis. Based on the fiscal sustainability risk calculations (Table 2.2), almost all risk indicators in 2020 were still in the safe zone according to the defined benchmark levels, but there was a noticeable deterioration in the value of indicators compared to 2019. The cyclically adjusted primary balance (% of potential GDP) was an exception from the safe zone, which is quite expected given the strong decline in budget revenues in 2020 and the realized deficit. In order to compensate for the decline in revenues, there was an increase in financing needs and, consequently, an increase of the total public debt as a percentage of GDP. Although these two indicators recorded a significant deterioration compared to 2019, they are still in the safe zone. It should be noted that the deterioration in the value of these indicators was affected not only by the growth of nominal debt and the amount needed for financing, but was also by the decline in the nominal GDP value. Given that the growth of debt in 2020 was mainly the result of increased indebtedness with international financial institutions (loans with long-term repayment), the amount of short-term debt decreased both as a percentage of total debt and as a percentage of foreign exchange reserves relative to the amount of short-term foreign debt. The deterioration of indicators compared to 2019 was much expected, but the risk to fiscal sustainability is still moderate, bearing in mind that the indicators are in the safe zone, i.e. within the benchmark levels.

The economic recovery expected in 2021 still carries a high degree of uncertainty and financial risks. Any materialization of positive expectations will predominantly depend on the speed of global economic recovery, primarily in EU countries, but also on the economic and stabilization measures within the country itself. A low statistical base will certainly ensure that the technical recession does not recur, but it is quite certain that the volume of economic activity will not be able to return to the pre-recession levels for at least few more years. Therefore, according to the current projections of the Central Bank of BH, real economic growth of 3.4% is expected in 2021 compared to 2020. Although GDP growth is expected to be sector-wide, it should also be noted that negative risks pervade all the projected components of GDP, so continuous adjustments in macroeconomic forecasts are quite certain in volatile macroeconomic conditions. Exports of goods and services, as well as investments, will largely depend on external trends, while total consumption (private and public)

Table 2.2: Indicators of Fiscal Sustainability Risk

Indicator	Safe area	Benchmark level	Level in BH	Changes compared to the previous year
r - g[1]	<	1.1	-0.76	0.33
Public debt of general Government sector (% of GDP)	<	42.8%	35.8%	3.8%
Cyclically adjusted primary balance (% of potential GDP)[2]	>	-0.5%	-4.0%	-5.1%
Financing needs (% of GDP)	<	20.6%	9.4%	7.6%
Share of short-term debt in the total debt, remaining maturity	<	44.0%	11.5%	-0.7%
Debt denominated in foreign currency (non-euro)[3]	<	40.3%	28.4%	-0.6%
Average maturity of public debt (years)(godine)	>	2.3	6.3	-0.1
Short-term foreign public debt (% of foreign currency reserves),remaining maturity	<	61.8%	5.0%	-1.1%

Source:
CBBH, MFT of BH, BHAS, BH Fiscal Council, IMF, Ministries of Finance of FBH and RS, CBBH
Note:
[1] r - Implicit interest rate on government sector debt minus the GDP deflator (moving average for five years); g - real GDP growth rate (moving average for five years)
[2] For 2020, the IMF projection from April 2021 was used.
[3] Calculation of the public debt denominated in foreign currency does not include a part of the public debt denominated in euro due to the fixed rate of the local currency and euro.

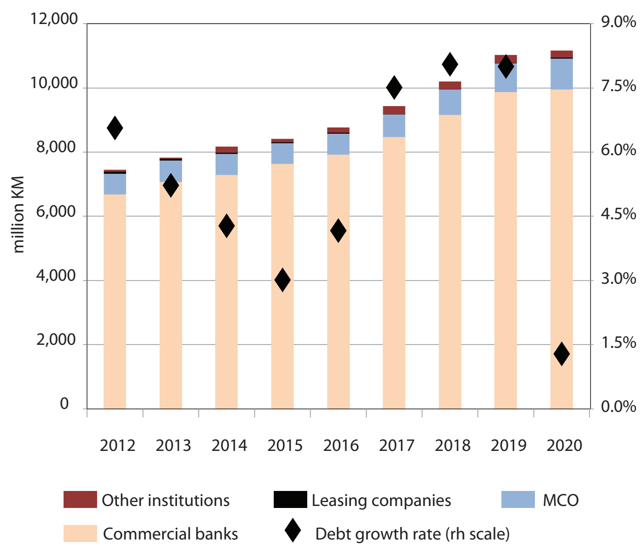
as well as imports of goods and services will predominantly depend on internal factors in the country itself.

3. Households

Negative consequences of the coronavirus pandemic also affected the household sector. The decline in economic activity, and unfavourable labour market trends that contributed to the decreased consumption with an increased risk of declining disposable income, further increased the uncertainties in the household sector and their willingness to spend and borrow. Although in 2020 the quality of loan portfolio in the household segment did not deteriorate, and non-performing loans declined at the sector level, it should be noted that this trend was largely the result of non-performing loan write-offs, and that moratoriums introduced on loan repayment to clients affected by the COVID-19 pandemic during 2020 contributed to the prevention of growth of non-performing loans, which is expected after the expiration of temporary measures of banking agencies. The multiannual trend of declining interest rates on household loans was reversed in 2020, and in the first quarter of 2021 no significant changes in interest rates were recorded. Although total household deposits are still growing, the years-long growth trend of long-term term deposits was stopped in 2020, while the term deposits continued to decline in 2021 both up to one and over one year. Unlike lending rates, deposit interest rates continued to fall in 2020.

Due to the shock caused by the coronavirus pandemic to the level of economic activity in the country, the household sector consumption in 2020 decreased and the labour market conditions deteriorated, and consequently, the growth of indebtedness of this sector slowed down compared to previous years. The total household indebtedness at the end of 2020, according to CRC data, amounted to KM 11.17 billion and, compared to the end of the previous year, increased by a modest 1.3%[2]. A slight increase in household indebtedness is evident in both the commercial banks and other financial institutions. The household indebtedness rate with commercial banks increased slightly (0.8%) compared to the end of the previous year, and commercial banks remained the main creditors of the household sector. The share of debts to these financial institutions accounts for 89.2% of total indebtedness, which is still regarded as the largest contribution to the growth of total household indebtedness. Indebtedness of households with microcredit organizations also increased, i.e. by 7.9% compared to the end of 2019, according to CRC data. The five-year 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 under significantly less favourable conditions and at far higher interest rates from micro-credit organizations[3], which have more flexible credit approval policies. Household indebtedness with leasing companies also increased slightly in 2020, but the share of debt to these institutions in the total household debt was negligible, i.e. only 0.29% (Graph 3.1).

Graph 3.1: Household Debt to Financial Institutions



Source: CRC

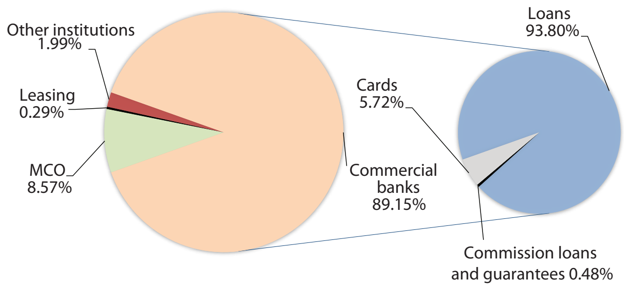
The structure of household indebtedness with commercial banks by the type of debt did not change significantly in the past period.

As in previous years, the largest share of household indebtedness in 2020 involved loans with commercial banks, which recorded a growth of 1.1% in 2020 as compared to the previous year. Unlike the previous year, other types of receivables recorded a slight decrease in indebtedness during 2020, which did not affect the structure of total indebtedness. The share of standard loans in the total household indebtedness with commercial banks continued to grow and, compared to the end of 2019, increased by 25 basis points, thus accounting for as much as 93.8% of household debt to commercial banks (Graph 3.2).

[2] The total household indebtedness in 2019 increased by 8.0%, and in 2018 by 8.1%

[3] In 2020, the average weighted effective interest rate on loans to MCOs in the FBH was 23.98%, while the average weighted effective interest rate on loans to MCOs in the RS was 23.55%.

Graph 3.2: Household Debt per Institution and Type of Debt, 2020



Source: CRC, CBBH

In 2020, the trend of growth of issued payment cards in BH continued. However, there was a decrease in the total used card overdraft and in average household indebtedness on payment cards. Although the number of deferred payment cards decreased, according to CRC data, the total number of active payment cards increased, due to the increase in the number of debit and credit cards. The approved overdraft on active cards available for lending also recorded a slight increase, primarily due to the increase in the number of issued credit cards, while the used amount of limit recorded a decrease in value on all types of cards compared to the end of the previous year (Table 3.1)[4].

The trend of decreasing the average household indebtedness on credit cards continued in 2020. The amount of payment card debt decreased on all types of cards, and the total household indebtedness on payment cards decreased by 4.2% compared to the end of 2019. This decrease was a result of a reduced cash withdrawal from the cards, i.e. by 3.1% compared to the previous year. This trend of credit card indebtedness is largely due to the high costs of this type of borrowing. Although it was to be expected that the COVID-19 pandemic would lead to an increase in indebtedness for all types of cards in 2020, the households' choice to reduce or defer consumption resulted in a reduction in this type of indebtedness.

During 2020, there was a decline in household indebtedness from the general consumption loans, while housing loans and loans for business activities recorded an increase compared to the end of the previous year. The structure of claims on households by purpose, as in previous years, was dominated by general consumption loans, including claims on all types of cards (Graph 3.3). After nine years of consecutive growth, in 2020 the general consumption loans recorded a decrease in value by 3.3%. The decrease in demand for this type of loan was a consequence of reduced consumption of the household sector caused by the pandemic's negative effects, and by the fear and increased uncertainty about economic trends in both domestic and global markets. A significant number of households finance their consumption by relying on these loans, approved card overdrafts, non-purpose or consumer loans, while general consumption loans are partly used to finance housing needs, given that a number of citizens are unable to meet the banks' housing loan criteria.

After the multi-annual downward trend in household debt on housing loans was halted in 2017, the loans with this purpose recorded large annual growth rates for the fourth consecutive year. Housing loans in 2020 recorded

Table 3.1: Claims on Households, Cards in KM

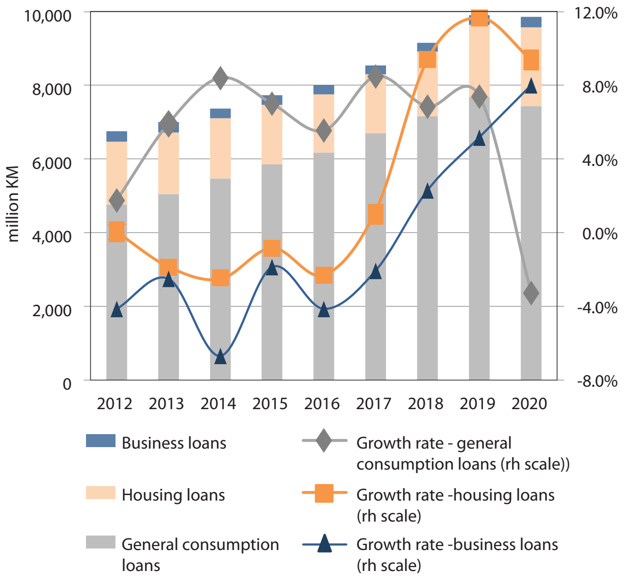
	Number of active cards		Approved amount		Used amount		Debt per card	
	2020	Annual change	2020	Annual change	2020	Annual change	2020	Annual change
Debit cards	718,842	1.4%	860,408,567	1.9%	363,008,559	-1.6%	505	-2.9%
Credit cards	261,556	0.8%	357,914,676	-0.8%	169,375,788	-5.3%	648	-6.1%
Deferred payment cards	147,888	-1.7%	160,942,518	-1.5%	36,852,666	-8.3%	249	-8.3%
TOTAL	**1,128,286**	**0.9%**	**1,379,265,761**	**0.8%**	**569,237,012**	**-3.1%**	**505**	**-4.2%**

Source: CRC

[4] The analysis did not take into account debit cards without the approved amount of allowed overdraft or those without overdrafts, as banks recorded in the CRC

an increase of 9.4% compared to the previous year, and their share in total household loans continued to grow for the third consecutive year, and at the end of the observed period amounted to 21.7%. Household indebtedness on the basis of business loans increased by 8.0% in 2020, however, their modest share in the total household indebtedness did not increase significantly and amounted to 2.8%.

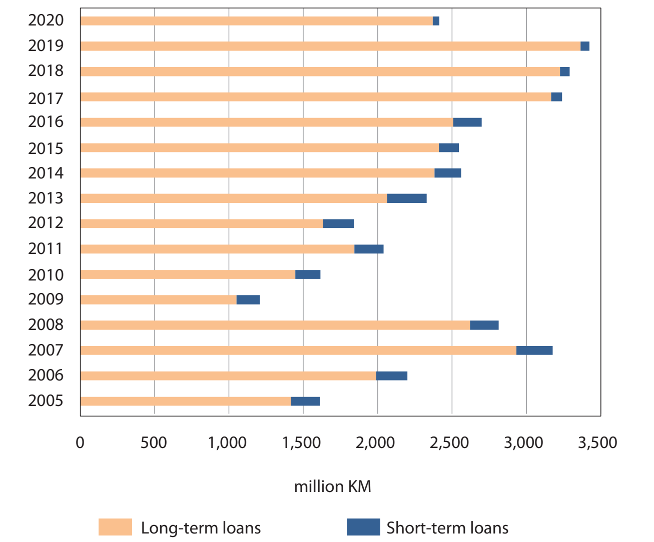
Graph 3.3: Household Loans by Purpose and Credit Growth



Source: FBA and BARS, CBBH

According to CBBH data, in 2020, newly approved households loan were recorded in the amount of KM 2.42 billion, i.e. a significant decrease (29.5%) compared to the previous year. In addition to unfavourable labour market trends and the uncertainties about further development of the coronavirus situation, which led to a significant reduction in consumption and credit demand, the weaker credit activity was significantly affected by the pandemic mitigation measures taken by banks, which were primarily intended for granting moratoriums on household loans. In this record, the newly approved loans also include previously approved rescheduled loans and approved replacement loans, while loans under moratorium were not recorded as newly approved loans. Thus, according to the records on newly approved loans, compared to the previous year, the value of approved or rescheduled household loans was lower by over KM 1 billion in 2020, with a decrease recorded in both long-term and short-term loans (Graph 3.4). It is realistic to expect that the consequences of coronavirus pandemic will be pronounced in the household sector in the short or possibly medium term, which could lead to the strengthening of financial vulnerabilities in this sector.

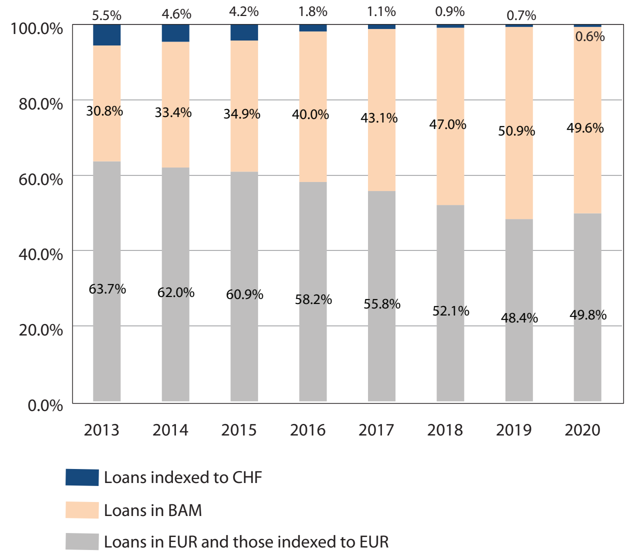
Graph 3.4: Newly Approved Household Loans



Source: CBBH

The currency structure of household loans is dominated by loans with the euro currency clause. Taking into account the existing currency board regime in BH and the commitment to keep it in the future, these debts do not give ground for concern because of the currency risk exposure. Although in 2020 there was a slight increase in the share of loans denominated and indexed in euro currency, in previous years there was a noticeable decrease in the share of loans indexed in foreign currency in total household loans, which further reduced this risk. According to CRC data, loans in euro and loans with a currency clause in euro in 2020 grew at annual rate of 4.1%, while loans in KM recorded a decline of 1.6%. The share of foreign currency household loans and those with currency clause recorded a continuous downward trend, and the decrease in the share of these loans in total loans was most pronounced in 2018. Since most of these loans relate to the loans indexed in euro, it would be redundant to talk about effective currency risk mitigation. Household credit indebtedness indexed in CHF decreased from 5.5% in 2013 to a negligible share (0.6%) in the total households loans at the end of 2020 (Graph 3.5).

Graph 3.5: Currency Structure of Household Loans



Source: CRC

In 2020, there was a decline in short-term and long-term loans to households in relation to all maturity categories, except in the category of long-term loans approved for a period longer than ten years. The remaining indebtedness on loans for up to one year was lower by 18.9% compared to the end of the previous year. Short-term and long-term household loans in domestic currency of up to five years of maturity recorded a significant decline in relation to the previous year, compared to long-term loans with agreed maturities of over five or ten years, which recorded growth. Such trends are expected if we take into account the previously mentioned trends in 2020: a smaller amount of new borrowings involving general consumption loans, moratoriums and reprograms on previously agreed loans, and an increase in housing loans borrowing, which are usually approved for longer maturities. Finally, there is a slight increase in household credit indebtedness compared to the previous year (1.1%), with a decline in household loans in domestic currency of 1.6%, and an increase in loans granted or indexed in euro of 4.1% as compared to 2019 (Table 3.2).

Despite the consequences of the coronavirus pandemic, credit risk did not materialize during 2020. Primarily due to the activities undertaken by banks, such as accounting and permanent write-offs of non-performing loans and more efficient credit risk management, the level of non-performing loans decreased by 79 basis points and at the end of 2020 amounted to 5.8% (Graph 3.6). Also, the deterioration of the loan portfolio quality at the sectoral level did not occur due to temporary measures of banking agencies, primarily the moratoriums on household loans for those directly affected by the pandemic who were unable to continue proper debt servicing.

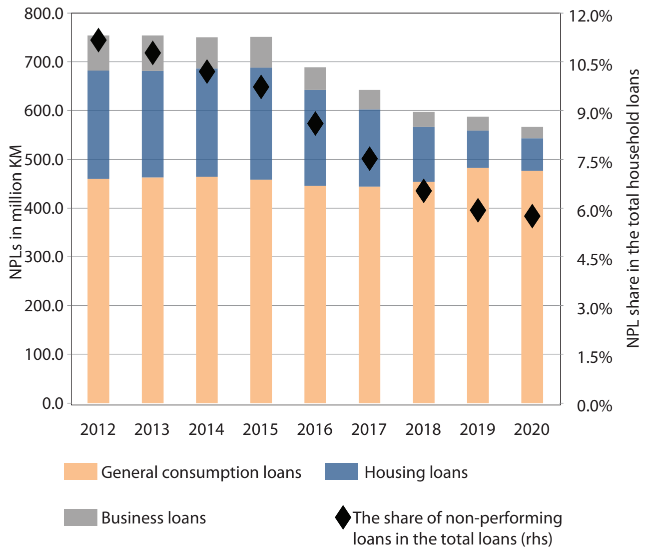
The share of non-performing loans in total household loans in 2020 decreased across all categories of loans by purpose. The largest decrease in the level of non-performing loans in total loans was recorded in the category of loans for business activities of the household sector, i.e. 1.7%, while housing loans and general consumption loans decreased their share by 1.0% and 0.6%, respectively. Observing the quality of loan portfolio by the purpose of loans, in contrast with previous years when the largest decrease in non-performing loans was recorded in the category of housing loans, both in absolute and relative terms, the largest decrease in non-performing loans in 2020 was recorded in the general consumption loans. Thus, non-performing loans for general consumption at the end of 2020 were lower by KM 64 million or 11.9% compared to the end of the previous year. Non-performing loans for housing construction continued the downward trend and in the observed period decreased by KM 13.8 million or 17.0%, while non-performing loans for business activities decreased by KM 2.8 million or 10.7%.

Table 3.2: Loans to Households, Maturity and Currency Structure **in KM**

Remaining debt and due uncollected principal, thousand KM								
Maturity / Currency	BAM		Foreign currency loans and indexed loans				TOTAL	
			EUR		CHF			
	2020	Annual change	2020	Annual change	2020	Annual change	2020	Annual change
Up to 1 year	57,425	-21.0%	4,929	17.3%	0	0.0%	62,354	-18.9%
1 - 3 years	200,754	-34.0%	55,758	-9.5%	3,311	-23.6%	259,824	-29.8%
3 - 5 years	511,555	-32.7%	96,192	-40.1%	25,971	-4.3%	633,718	-33.1%
5 - 10 years	1,847,674	5.6%	1,030,635	-39.3%	19,039	-18.9%	2,897,348	-16.5%
Over 10 years	2,012,317	10.6%	3,465,839	36.2%	5,212	-23.2%	5,483,369	25.5%
TOTAL	**4,629,726**	**-1.6%**	**4,653,353**	**4.1%**	**53,534**	**-13.3%**	**9,336,613**	**1.1%**

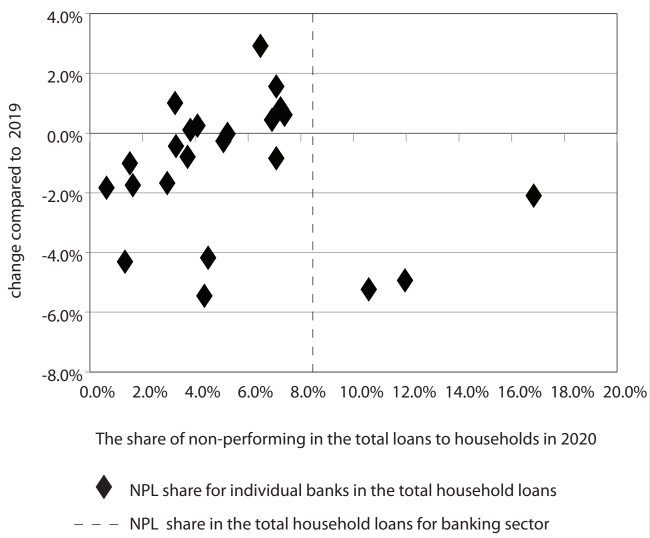
Source: CRC

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



Source: FBA, BARS, CBBH

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

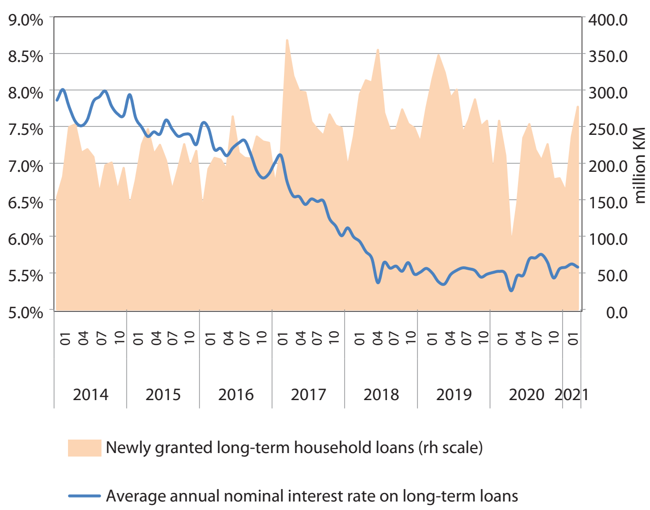


Source: FBA, BARS, CBBH

Observing the quality of 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 2020 declined with most banks in the sector, including the banks with the largest concentration of non-performing loan (Graph 3.7) However, during 2020, six banks recorded an increase in non-performing loans in absolute terms in the category of general consumption loans, where the share in total loans also increased. This could be an indication that the banks approved non-performing and replacement loans in recent years with more lenient criteria, which allowed households to borrow heavily, and that over-indebtedness of some households was unsustainable in terms of income. Negative effects of the coronavirus pandemic further increase the risk of inability to service the assumed liabilities of households, therefore it is possible to expect a deterioration in the quality of loan portfolio of the household sector in the coming period.

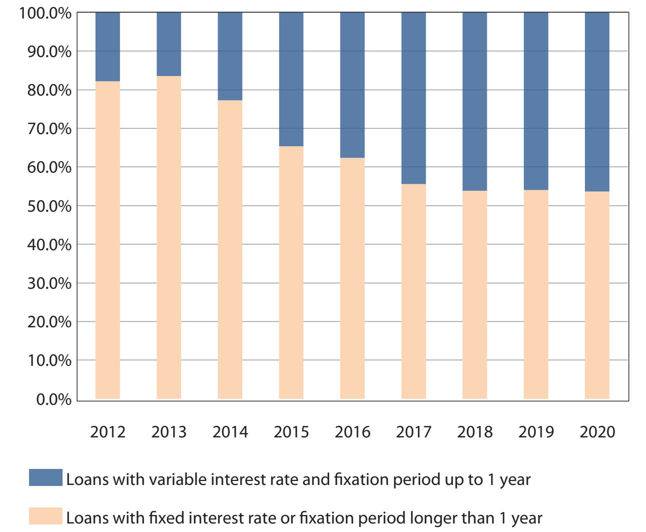
In the conditions of continued low interest rates in the international financial markets, despite the increased uncertainties, interest rates on household loans did not record major changes in 2020. The average nominal interest rate on long-term loans in 2020 was 5.56% and was 8 basis points higher than in the previous year. The multi-annual trend of declining interest rates came to a halt, and interest rates stayed at low levels despite the increasing risks arising from the pandemic, implying they hit their minimum in domestic market. The more favourable borrowing conditions for household in the past few years partly contributed to the growth in demand for loans, which was significantly reduced due to the negative effects of the coronavirus pandemic in 2020. During the first three months of 2021, the average weighted interest rate on long-term loans did not change significantly and remained at the level of the average weighted interest rate recorded during 2020 (Graph 3.8).

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



Source: CRC, CBBH

Graph 3.9: Newly Granted Loans according to the Interest Rate Fixation Period



Source: CRC, CBBH

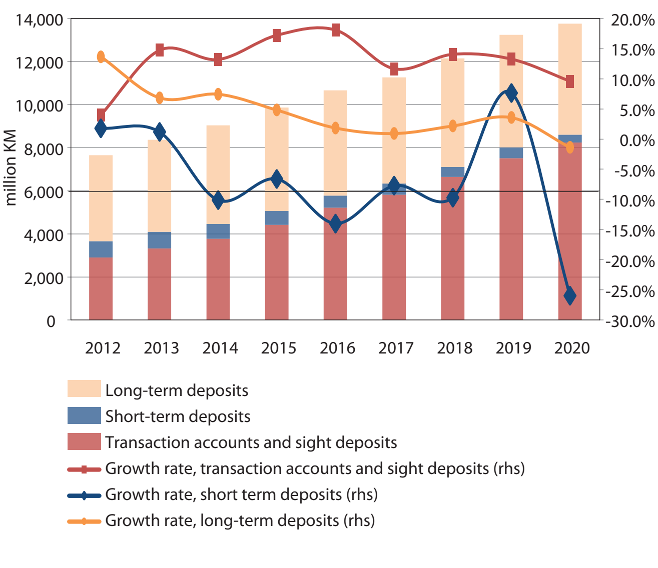
Although no significant growth in interest rates is expected by the end of the year, both in the euro area and in BH, households' exposure to interest rate risk should not be underestimated, especially given that total household loans are dominated by loans with floating interest rates or with an interest rate fixation period of up to one year. However, given the increasing uncertainties about the growth of disposable income and employment, even a potentially mild rise in interest rates would place a significant burden on some households and further complicate the repayment of credit liabilities. In recent years, interest rate risk in the BH banking sector has been partially mitigated by increasing the volume of lending at fixed interest rates or by extending the interest rate fixation period. Additionally, the rescheduling of previously approved loans often entails signing contracts with more favourable terms for clients, such as fixation of previously floating interest rate. The share of loans with floating interest rates or a fixation period of up to one year in newly approved loans to households has been declining since 2014, along with the decline in average interest rates on newly approved loans. At the end of 2020, these loans accounted for 53.7% of the total newly approved household loans, i.e. 39 basis points less than at the end of 2019. (Graph 3.9).

In 2020, the short-term and long-term term household deposits decreased, but the total household deposits continued to grow due to an increase in funds on transaction accounts and an increase in demand deposits.

According to CBBH data, household deposits amounted to KM 13.76 billion at the end of the year, which is 3.9% more than the amount of household deposits at the end of 2019. The largest contribution to the growth of total household deposits, both in absolute and relative terms, is given by the growth of funds in transaction accounts, which recorded an increase of 13.4%, as well as the growth of demand deposits, which grew at a rate of 5.2%. Deposits with a term of up to one year, on a downward trend in the previous years, with the exception of 2019, experienced a significant decline of 26.0% in 2020. On the other hand, the ten-year growth trend of long-term deposits was halted, and a decrease of 1.4% compared to 2019 was recorded (Graph 3.10). The uncertainties and the increased risks caused by the coronavirus pandemic in March 2020, when a significant number of individuals lost part or all of their income, caused the withdrawal of funds from bank accounts and a decrease in total household deposits by 2.3% compared to the previous month. However, the amounts on transaction accounts and demand deposits began to grow in April, and the funds on transaction accounts almost reached the balance recorded at the end of February 2020. On the other hand, the level of short-term and, in particular, long-term household deposits continued to decrease in April and May 2020. Due to the uncertainties involving the increase of potential risks associated with the pandemic, households did not opt for new deposit contracts or were no longer able to save due to their declining incomes, so they kept the matured term deposits as demand deposits or redirected them to consumption.

According to the BH Deposit Insurance Agency data for 2020, the category of deposits exceeding the amount of the insured savings of KM 50,000 recorded a significantly higher growth compared to the category of deposits up to KM 50,000. Deposits in the category over KM 50 thousand increased in the observed period compared to 2019, both in terms of the number of concluded deposit contracts (4.2%) and the amount of term deposits (5.0%). On the other hand, although the category of deposits up to KM 50 thousand recorded a significant decline in terms of the number of concluded deposit contracts, the value of these deposits increased by 2.6% compared to the previous year. If it is taken into account that only 2.2% of the total number of deposit accounts, were deposits over KM 50 thousand, and that deposit accounts with smaller amounts of funds[5] prevailed among the deposit accounts up to KM 50 thousand, which also include all current accounts of households, it may be inferred that household savings increased in the observed period. However, only a small part of households is in a position to save funds, especially to save in significant amounts.

Graph 3.10: Household Deposits by Maturity



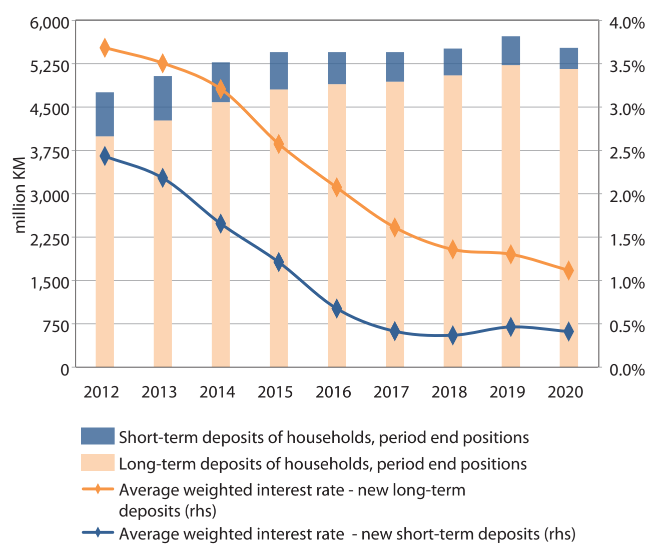
Source: CRK, CBBH

[5] The average amount of funds on deposit accounts in the category of de posits up to KM 50 thousand at the end of 2020 amounted to KM 2,867.

Household deposits continued the same trends in the first four months of 2021, and at the end of April recorded a growth of 3.7% compared to the end of 2020. The growth of total deposits was primarily a consequence of the growth of deposits in transaction accounts and demand deposits, unlike the short-term and long-term deposits, which continued the downward trend.

Deposit interest rates continued to fall in 2020. The weighted average interest rate on household deposits with agreed maturity (term deposits) was 0.98% in 2020, i.e. 19 basis points lower than in the previous year, while the weighted average interest rates on long-term and short-term household deposits were lower by 19 and 5 basis points, respectively. Weighted average interest rates continued to fall significantly from January to December 2020, when they recorded a slight increase above the annual average. (Graph 3.11).

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



Source: CBBH

4. Corporates

Total debt of the non-financial corporate sector to domestic financial intermediaries in 2020 remained at approximately the same level as in the previous year. Credit activity was slightly weaker compared to the previous year. In the financing of its business activities, the corporate sector, as in previous years, relied mostly on the bank credit support. Average interest rates on loans remained low, which enabled companies to borrow on relatively favourable terms. The decrease in non-performing loans in the non-financial corporate sector continued due to *the implementation of new supervisory regulations and the measures taken by banks towards clients in order to mitigate the pandemic's negative effects. Currency risk is still not a significant source of risk, while the interest rate risk slightly increased. The rise of risks in the non-financial corporations sector is possible after the expiration of temporary measures adopted by governments and regulators in order to mitigate the negative economic consequences of the pandemic.*

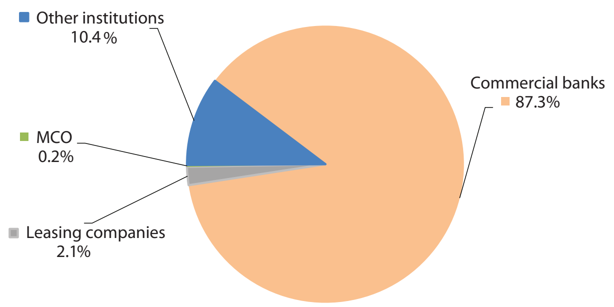
The volume of foreign trade in 2020 decreased due to the decline in the value of imports, as well as in the value of exports, as a consequence of global economy slowdown caused by the Covid-19 pandemic. The total value of exports in 2020 amounted to KM 10.52 billion, i.e. a decrease of KM 977.3 million or 8.5% compared to the previous year. *The Base Metals, namely Iron and Steel, and Aluminium and Aluminium Products* remained the most important export product; however, the export of these products recorded a sharp decline of 17.1% compared to the previous year. The value of iron and steel exports decreased by 20.3%, due to a decrease in demand on the global market, which began to recover in the third quarter of 2020, causing price spikes in late 2020 and 2021. Exports of steel and iron ore products also decreased by 7.3%. The decline in exports of this group of products was mostly due to the decline in exports of aluminium and aluminium products by 33.1%. In the group of most important export products, products of mineral origin, as in the previous year, recorded the largest decline in exports in 2020 (18.7%). The Bosanski Brod Oil Refinery was in the process of overhaul and gasification throughout 2020, which negatively affected the production and export of petroleum products, which decreased by 57.5%. Also, electricity exports decreased by 13.5% compared to the previous year.

The realized value of goods imports in 2020 amounted to KM 16.9 billion, and compared to the previous year it decreased by KM 2.6 billion or 13.4%. The decline in imports was the result of a reduction in foreign trade due to restrictions imposed to prevent the spread of the coronavirus pandemic, the closure of borders and the cancellation of contracts. In all categories with the highest nominal value of imports, a decrease in imports was recorded. *Mineral Fuels, Mineral Oils and Products of their Distillation* recorded the largest decline in the value of imports, i.e. 39.4% compared to the previous year, due to the slowdown in economic activity and the decreasing oil prices, which was more pronounced in the first half of the year. Imports of products *Base Metals, Aluminium and Aluminium products, Iron and Steel, Iron and Steel Products* decreased by 7.2%, while imports of machinery and appliances and electrical devices decreased by 8.8%. A larger decrease in imports as compared to the decrease in exports resulted in an increase in the coverage of imports by exports, which amounted to 62.3% in 2020, and therefore, in a reduction of trade deficit of 20.0%, the value of which amounted to KM 6.4 billion at the end of the year.

Table A3 in the Statistical Appendix shows groups with the largest share in foreign trade, and the estimated price effects and effects of changes in the volume of exported and imported goods on the value of exports and imports in the most important commodity groups compared to 2019. The crisis caused by the COVID-19 pandemic in 2020 had a negative impact on global economy, and thus on the foreign trade of our country.

Total indebtedness of the non-financial corporate sector to domestic financial intermediaries in 2020 remained at approximately the same level as in the previous year. According to CRC data, the total indebtedness of legal entities to all groups of financial intermediaries at the end of 2020 amounted to KM 13.5 billion. Measured by the share in GDP, the total indebtedness of companies to all groups of financial intermediaries accounted for 39.6% of GDP. Indebtedness of the corporate sector in the domestic financial market mostly involved debt to the banking sector, while indebtedness in the capital market was still insignificant. Indebtedness of legal entities in the banking sector accounted for 87.3% of total debt to all financial intermediaries in BH (Graph 4.1).

Graph 4.1: Corporate Debt to Financial Institutions at 2020 End



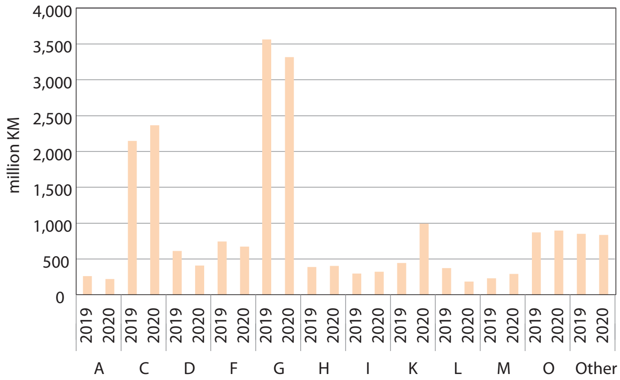
Source: CRC

According to CRC data, the total debt of legal entities to banks in BH at the end of 2020 amounted to KM 11.4 billion or 33.6% of GDP. The share of corporate debt to microcredit organizations and leasing companies in the total debt was still insignificant, although the debt of legal entities to microcredit organizations in 2020 increased by 26.5%, while the total debt of legal entities to leasing companies increased by 1.5% compared to the previous year.

In 2020, credit activity in the non-financial corporate sector was somewhat weaker than in the previous year. During 2020, commercial banks in BH approved KM 3.47 billion of new loans to non-financial private companies sector, which was a decrease of 5.1% compared to the previous year. The dynamics of approving new loans was also affected by moratoriums, which were treated as existing loans and were not recorded as new loan agreements. Entity banking agencies made decisions on interim measures that banks, microcredit organizations and leasing companies would apply to recover from negative economic consequences caused by the Covid-19 pandemic. Measures from these decisions allow for moratoriums on loan repayment, as well as the adjustment of the manner and dynamics of loan repayment for the clients affected by negative economic effects of the pandemic. It is worth noting that, unlike previous year, the year of 2020 recorded an increase in the financing of large investment projects with bank loans in non-financial corporate sector, given that the amount of newly approved long-term placements in the category over one million euros increased by 8.4% compared to the previous year.

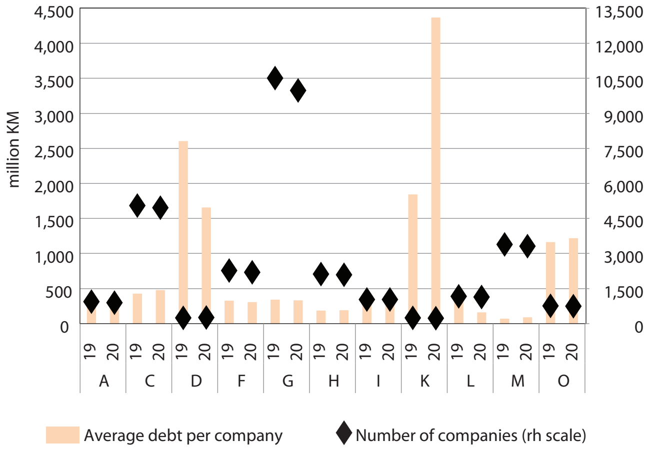
The activities to which the banking sector is most exposed recorded a decline in gross value added, as a result of the COVID-19 pandemic, with a decline in indebtedness. In 2020, there was a decline in gross value added in most activities, and the most pronounced was in the activities: G *(Wholesale and retail trade)*, H *(Transport and storage)*, I *(Hotels and restaurants)*, and then activities: B (*mining and quarrying)* and C *(Manufacturing)*. On the other hand, the growth of gross value added during 2020 was recorded only by Public sector activities and Professional, technical and support service activities. Traditionally, the exposure of the banking sector in BH is the highest to companies from the *Trade and Manufacturing industry,* and the claims of the banking sector on companies from these two industries account for 52.0% of total receivables. Due to the slowdown in economic activity caused by the coronavirus pandemic, and the negative impact on the company's operations and the decline in gross value added in these activities, there was a decrease in credit indebtedness of companies in the Trade activity by 6.9%. In the *Manufacturing industry*, after the decline recorded in the first half of the year, in the third quarter, due to the improvement of the macroeconomic environment and the situation in this industry, growth was recorded, and at the end of the year the companies' indebtedness of this industry amounted to 10.2%. The largest increase in credit indebtedness was recorded in Financial and insurance activities by even 122.0%. This increase at the systemic level was primarily influenced by the activities of one bank, which significantly increased its credit exposure to non-resident banking institutions. Significant growth in indebtedness was also recorded by companies from *Professional, scientific and technical activities* of 25.5%. In the activity Real estate business there was a decrease in indebtedness by 50.9%, and in the activity *Production and supply of electricity, gas, steam and air conditioning* a decrease of 33.1% was recorded (Graph 4.2).

Graph 4.2: Claims on Companies by the Selected Activities in 2020



Source: FBA,BARS

Graph 4.3: Average Corporate Debt by the Selected Activitie in 2019 and 2020



Source: FBA,BARS, BHAS, CBBH

Legend:	
A	Agriculture, forestry, fishing
C	Manufacturing industry
D	Production and supply of electric energy, gas, steam and air conditioning
F	Construction
G	Wholesale and retail trade, repair of motor vehicles and motorcycles
H	Transportation and warehousing
I	Accommodation and catering (hotel and catering industry)
K	Financial and insurance activities
L	Real estate business
M	Professional, scientific and technical activities
O	Public administration and defence, mandatory social insurance
OTHER	
E	Water supply, sewerage, waste management, and environment remedial activities
J	Information and communication
N	Administrative and auxiliary service activities
P	Education
Q	Health and social care
R	Art, entertainment and recreation
S	Other service activities

Considering the average indebtedness of companies, given that the total number of companies decreased, there was an increase of average indebtedness in most activities. As previously mentioned, an increase in one bank exposure in the system to non-resident banking institutions, in activity K *(Financial and insurance activities)*, resulted in significant increase in average indebtedness of 137.2%, with even slightly less number of companies compared to the previous year. A decrease in the number of companies was recorded (Graph 4.3) in all activities, except D *(Production and supply of electricity, gas, steam and air conditioning)*.[6]

Loan indebtedness of non-financial corporates decreased from KM 8.2 billion in 2019 to KM 8.1 billion in 2020, or 1.0%. After last year's decrease in the share of classic loans with a contractual maturity of over 10 years, in 2020 there was a slight increase in the share of these loans by 0.36 percentage points. According to the data from the CRC, in 2020 there was a decrease in debt on the basis of classic loans to corporates in the categories of maturity up to 1 year, 1 to 3 years and 3 to 5 years, while in the categories 5 to 10 years and over 10 years there was debt increases. In the corporate sector, according to the agreed maturity, as in previous years, long-term loans prevail. Loans with an agreed maturity of up to 1 year recorded a decrease in 2020 by 20.3% compared to the previous year. Loans with a contractual maturity of 1 to 3 years decreased by 7.3% compared to the previous year, while loans with a maturity of 3 to 5 years decreased by 2.9%. Loans with a maturity of 5 to 10 years increased by 5.6%, while loans with a maturity of over 10 years increased by 1.3%. Looking at the structure of long-term loans, loans with an contractual maturity of 5 to 10 years, of 44.0%, still have the largest share, which is an increase of 2.8 percentage points compared to the previous year (Table 4.1).

[6] Data on the number of companies were taken over from the Agency for Statistics of BH from the Information of the Unit of the Statistical Business Register on 30 June 2020, and refer to the number of companies on 30 June 2020 and 30 June 2019.

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

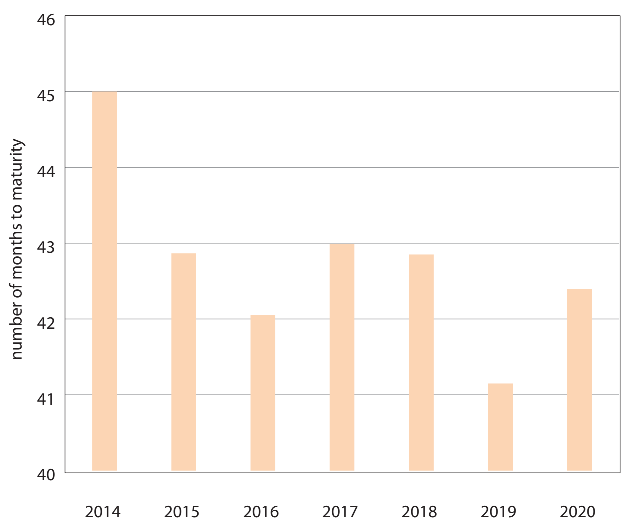
Maturity	BAM	Foreign currency loans and indexed loans				TOTAL
		EUR	CHF	USD	KWD	
Up to 1 year	409,655	140,748	0	18,873	0	**569,275**
1 to 3 years	760,512	468,992	0	33,816	0	**1,263,320**
3 to 5 years	758,551	655,289	215	0	402	**1,414,458**
5 to 10 years	1,370,031	2,193,687	284	0	439	**3,564,442**
Over 10 years	389,353	896,502	151	378	32	**1,286,415**
TOTAL	**3,688,101**	**4,355,218**	**650**	**53.067**	**873**	**8,097,910**

Remaining debt and due uncollected principal

Source: CRC

The weighted average maturity of loans[7] in the corporate sector, calculated according to the remaining maturity at the end of 2020, is 42.4 months and it is 1.3 months longer than in the previous year (Graph 4.4).

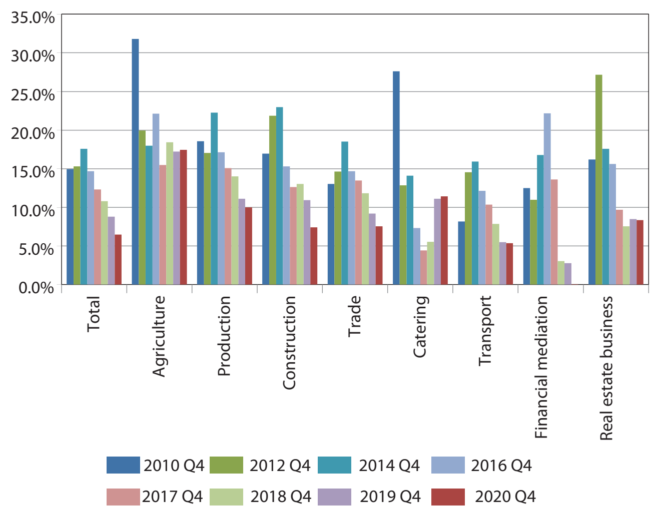
Graph 4.4: Average Loan Maturity



Source: CRK, CBBH

The credit risk of the corporate sector in 2020 has been reduced, although there is still a relatively high level of non-performing loans of this sector in the balance sheets of certain banks. The share of non-performing loans in total loans in the corporate sector at the end of 2020 was 6.5%, which is 2.3 percentage points less than in the previous year. In the previous periods, activities were undertaken in banks to solve the problem of non-performing loans by selling a part of the non-performing loans portfolio to companies authorized to purchase receivables, as well as with permanent write-off of non-performing loans. Beginning from 2020 banks are required to write-off the balance sheet exposure in two years after the bank recorded the expected credit losses in the amount of 100% of the gross book value of that exposure and declared it fully matured, except for financial leasing exposure. Implementation of above mentioned regulations significantly affected the continuing improvement of this indicator in 2020. Consequently, most banks in the system recorded a lower level of credit risk arising from operations with the corporate sector. Considering the quality of the loan portfolio by activities, in almost all groups of economic activities, a decrease in non-performing loans in total loans was registered in 2020, except in the activities Agriculture and Hotels and restaurants (Graph 4.5).

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



Source: FBA, BARS, CBBH

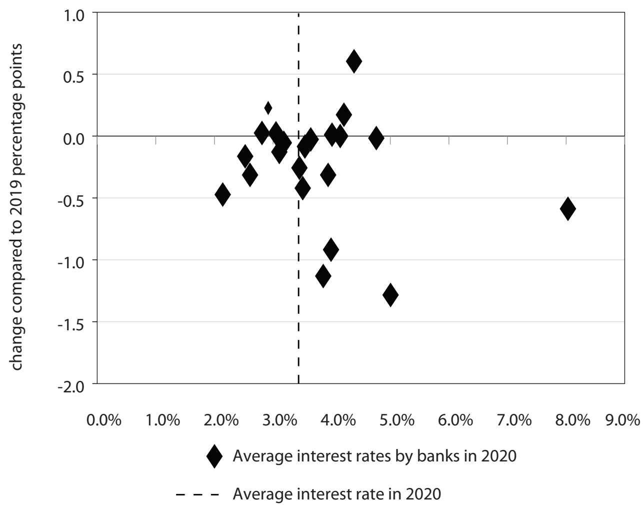
[7] While calculating the average maturity of loans the data on loans at the year-end reported into CRC by commercial banks was used. Average maturity of loans at the end year was calculated as weighted average of the remaining maturity, where, as weight we used the outstanding debt per each individual loan.

Compared to the previous year, the exposure of the corporate sector to currency risk did not change significantly. Currency risk against the euro in the current monetary regime is not a significant source of risk to corporates business operations. At the end of 2019, corporate debt denominated or indexed in euro currency amounted to 53.8% of total claims of banks on the corporate sector. Compared to the previous year, their share decreased by 1.9 percentage points. At the same time, the share of loans approved in domestic currency increased by 2.5 percentage points, and at the end of 2020, the remaining debt from these loans accounted for 45.5% of the total indebtedness of the corporate sector. The share of debt denominated in other currencies is only 0.7% and records a decrease of 0.5 percentage points compared to the previous year. Given the maturity categories, in the maturity category up to 1 year and from 1 to 3 years, the largest part of debt, as in the previous year, is denominated in KM currency, while in all other maturity categories, the largest part of debt is denominated in euro.

The environment of low interest rates on newly approved loans in the sector of non-financial companies continued in 2020. According to the CBBH data, the average interest rate[8] in the sector of non-financial companies in 2020 was 3.31% and compared to the previous year it is lower by 0.11%. With the exception of six banks, all other banks in the system recorded a decline of the average interest rate (Graph 4.6). The average interest rate ranged from 2.14% to 8.03%. In 2020, the average interest rate on newly approved loans in local currency is lower than in the previous year and amounts to 3.07%. The average interest rate on newly approved loans indexed in foreign currency also decreased compared to the previous year and amounted to 1.54%. Low interest rates on the domestic banking market were primarily affected by favourable financial conditions in international markets and still low banks financing costs, as well as competition between banks in the domestic banking market and a high level of liquidity. It is certain that banks will maintain a policy of low lending interest rates as long as they are able to amortize the pressure on net interest margins from operating income, under favourable borrowing conditions in international markets.

[8] Official interest rates are regularly published at the CBBH web site, while for the analytical needs, we make the calculations, i.e. weighting of interest rates by the volume of the approved loans from all categories.

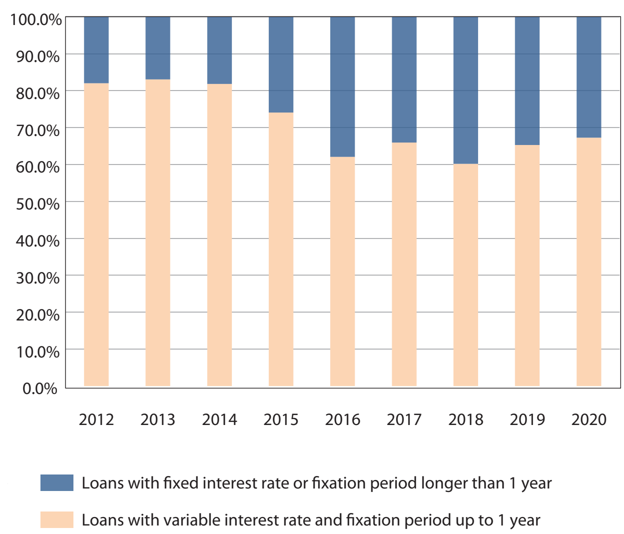
Graph 4.6: Interest Rates on Loans to Companies, by Banks



Source: CBBH

During 2020, there was an increase of the corporate sector exposure to interest rate risk, due to somewhat more intensive borrowing with a variable interest rate. From 2018, the share of loans with variable interest rates, i.e. the initial period of fixing the interest rate up to 1 year in the structure of newly approved loans, has slightly increased, and also in 2020 it was higher by 2.0% compared to the previous year, at 67.3%. (Graph 4.7). In case of an increase of interest rates, customers who have concluded contracts with a variable interest rate may be exposed to indirect credit risk.

Graph 4.7: Newly Granted Loans according to the Interest Rate Fixation Period



Source: CBBH

5. Financial Intermediaries

The total assets of financial intermediaries in 2020 remained at the level from the previous year. The decline of the asset value was recorded in case of insurance and investment funds, while other financial intermediaries, due to the regulators' measures, managed to keep and even slightly raise the value of their assets. The financial sector structure stayed unchanged, with the dominating share in the total assets of financial intermediaries still belonging to banking sector (Table 5.1).

low interest rates. Unfavourable maturity structure of financing sources remained one of the key risks for financial stability. Sound capital positions of banks and high grades in liquidity segment should enable banks to be a key factor in mitigating negative consequences on BH economy in the period to come.

In 2020, banking sector assets recorded a much weaker growth, amounting to 1.2%, compared to the previous year when the annual asset growth rate amounted to 8.9%. Although credit growth was not recorded, due to a strong decline of economic activity, banking sector assets expressed in per cents of GDP in the end of 2020 reached the highest recorded level of 96.9%, with the share of loans in GDP amounting to 61.1% in the end of the observed period (Graph 5.1).

Table 5.1: The Financial Intermediaries Assets Value

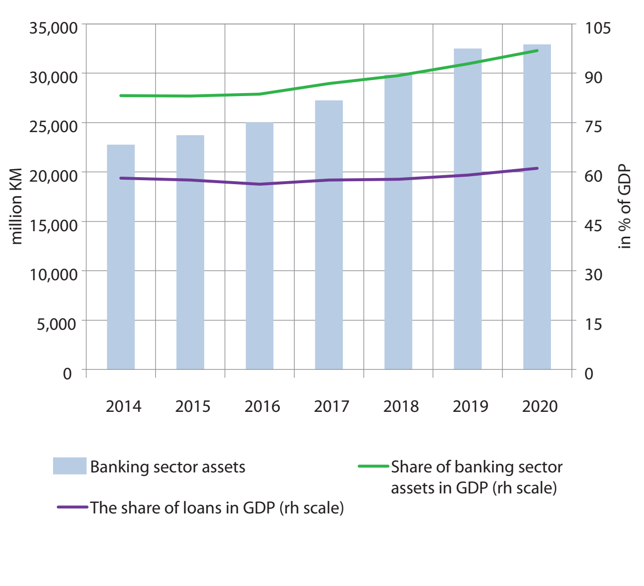
	2018		2019		2020	
Maturity	Value, million KM	Share, %	Value, million KM	Share, %	Value, million KM	Share, %
Banks [1)]	29,854.2	88.5	32,508.2	88.7	32,905.0	88.8
Leasing companies [1)]	297.2	0.9	323.7	0.9	343.8	0.9
Microcredit organisations [1)]	887.5	2.6	991.0	2.7	1,078.8	2.9
Investment funds [2)]	887.3	2.6	852.1	2.3	811.1	2.2
Insurance and reinsurance companies [3)]	1,818.7	5.4	1,966.9	5.4	1,911.0	5.2
Total	**33,744.8**		**36,641.9**		**37,049.7**	

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

5.1. Banking sector

The negative consequences of the coronavirus pandemic which brought about a significant decline of economic activity due to restrictions on the movement of people, goods and services, and increased uncertainty and risks, were partly reflected also in BH banking sector. The measures undertaken by the Entity Agencies in the forms of approved moratorium for the repayment of due liabilities, and other special undertaken measures influenced the mitigation of negative consequences of the pandemic and limited spill-overs to credit institutions. The absence of credit growth in 2020 was a result of lower demand for loans and tightening of lending standards in banks' business policies in conditions of adverse economic developments. Despite unfavourable conditions in 2020, almost all financial soundness indicators were improved. Over the observed period, BH banking sector was adequately capitalised, asset quality improved, and considerable liquidity was maintained. Yet, due to a decline of economic activity, net profit significantly decreased compared to earlier years. Exposure to government sector increased due to the increased purchase of the Entity securities. A dynamic growth of deposits of domestic resident sectors was continued in circumstances of

Graph 5.1: Assets and Loans in Per Cents of GDP

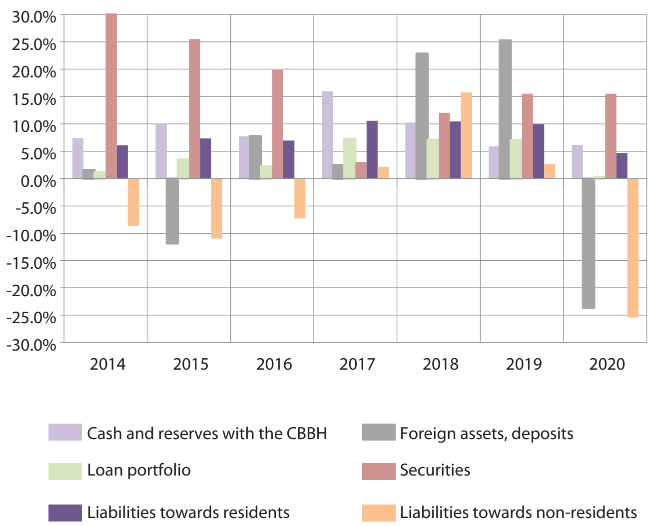


Source: FBA, BARS, BHAS, CBBH

Unlike previous years, the 2020 key trends in banks' balance sheets included a strong decline of foreign deposits in assets, unchanged value of credit portfolio and a considerable decrease of liabilities towards non-residents. Over the previous two years, banks, trying to minimise the costs of negative remuneration on holdings exceeding required reserve, had redirected a part of excess liquid assets from reserve accounts with the CBBH to accounts with foreign banks, resulting in a growth of foreign assets. In 2020, a considerable decline of deposits with foreign banks was recorded, while increase of cash and funds at the rate of 6.1% was recorded in reserve accounts with the Central Bank of BH. Banks' operations in circumstances of unfavourable macroeconomic environment and uncertainty brought about by the pandemic impacted the adjustment of banks' business models and tightening of lending standards. The CBBH carried out a bank lending survey in the end of 2020 and the beginning of 2021, aimed at gaining insight into the trends of standards and terms of lending of commercial banks, and observe supply and demand for loans in BH. The survey results show that lending terms and conditions tightened in supply, with demand of households and enterprises for loans decreasing at the same time. The main reasons impacting the tightening of lending conditions are related to risk perception, resulting from deteriorated economic conditions related to recession. In the first quarter of 2021, the lending terms for households and enterprises remained stricter, but with slightly lower intensity than in 2020. Expressed expectations related to supply show that relaxing of lending terms is not expected to take place soon, and with regard to demand, a slow increase of demand for loans of households and short-term loans for enterprises is expected. Such development in the market is expected taking into account economic consequences of the pandemic due to coronavirus, similar trends being also observed in other economies.

Following a three year dynamic growth, liabilities towards residents recorded a slower growth, with liabilities towards non-residents being much lower than in the previous year. The annual growth rate of the portfolio of securities remained at the last year's level (15.5%) and was mainly related to investments in securities of the Entity governments (Graph 5.2).

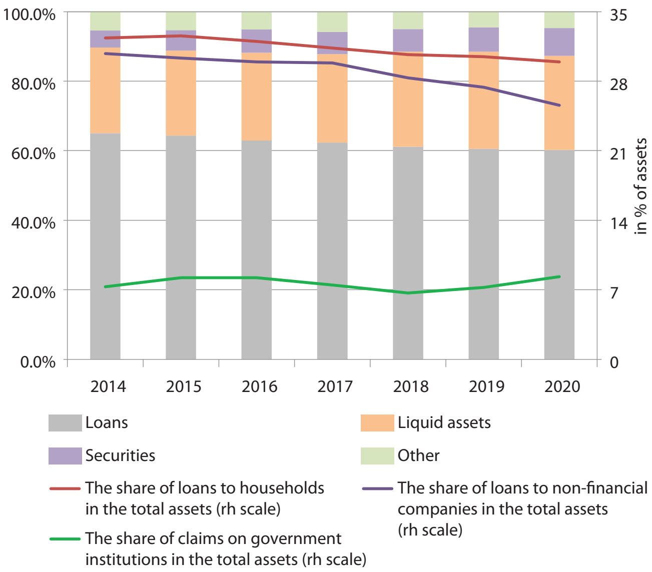
Graph 5.2: Changes in Main Items of Banking Sector Balance Sheet



Source: FBA, BARS, CBBH

Following a three year long dynamic growth of lending, a significant slowdown of credit growth was recorded in 2020, with the amount of extended loans being slightly higher compared to the 2019 end. During 2020, the total banking sector assets were impacted by decreased credit growth, which coupled with the growth of share of securities led to an increase of total assets by KM 397 million or 1.2% compared to the previous year, this being the lowest asset growth in the recent eight years. Over the observed period, banks recorded a slight growth of credit portfolio amounting to KM 64 million or 0.3% compared to the previous year. Although their share in the total assets was low, at 8.4%, local and foreign securities in 2020 recorded the highest nominal and percentage growth of 371 million or 15.5% in the total assets compared to the previous year (Graph 5.3).

Graph 5.3: Banking Sector Assets



Source: FBA, BARS, CBBH

The share of the total loans in banking sector assets did not change significantly compared to the previous year, amounting to 63.1% in the end of 2020, with the value of the total loans amounting to KM 20.7 billion, which is at the level of the last year's amount. Out of the total loans in 2020, KM 9.9 billion or 47.5% referred to loans to households, KM 8.4 billion or 40.6% to loans to private non-financial companies, while KM 882.9 million or 4.3% referred to loans to government institutions.

Unlike earlier years, when stable credit growth had been recorded in the sector of non-financial companies, a decrease of the total value of extended loans to this sector amounted to 5.5% in 2020.

The share of loans extended to non-financial companies in the total assets remained on a downward trend, amounting to 25.6% in the end of 2020, which was lower by 1.8 percentage point compared to the previous year. In the household sector, much weaker lending was observed compared to earlier years, significantly impacted by the measures implemented by banks with purpose of mitigating negative effects of the pandemic, primarily related to the approval of moratorium on household lending. The level of the total claims on households did not significantly change compared to the previous year. A decline of general consumption loans was observed in this sector, including claims based on payment cards, while on the other hand, newly approved housing loans remained on a dynamic upward trend at the annual rate of 9.4%. The share of household loans in the total assets in 2020 amounted to 29.9%, having decreased by 51 basis points compared to the previous year.

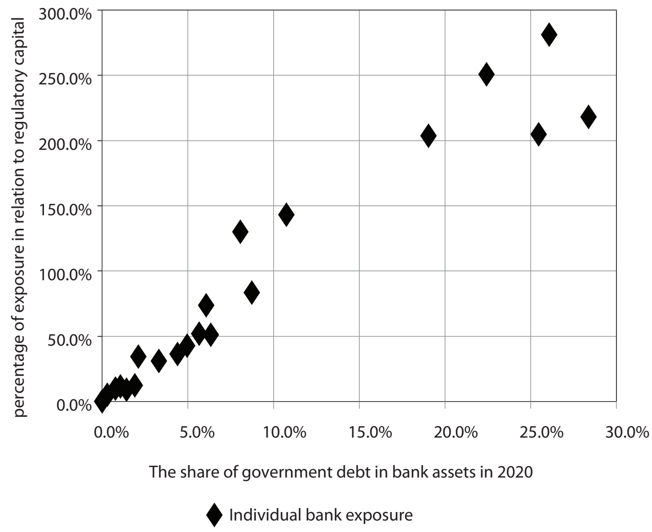
In 2020, banking sector exposure to government sector continued to increase, still staying at moderate level. The total exposure of banking sector to government sector in the end of 2020 amounted to KM 2.89 billion, which is higher by KM 449 million or by 18.4% compared to the previous year. Banks in 2020 increased their exposure to government sector mainly due to purchases of Entity securities, while loans to government institutions also increased, so the share of government debt in the total banking sector assets reached the level of 8.3%. At the level of entire banking system, exposure to government sector in the end of 2020 was at the level of 77.8% of banking system regulatory capital[9].

Graph 5.4 shows individual exposure of banks towards all the levels of BH authorities, including off-budget funds and social care funds[10]. The graph shows that some banks have a high exposure to government sector, rather close to the maximum allowed limit. With low interest rates, banks with modest average asset and equity return rates, were trying to adjust their business models to the situation in the market, trying to ensure additional safe earning through increased investing in government sector. In this way, a stronger relation between banking and government sectors was achieved. However, although risks of BH fiscal sector are currently at low level, due to market uncertainties and decreased economic activities resulting from coronavirus pandemic, stronger increase of such risks and accumulation of imbalances in the government sector can be expected as well, which could increase these banks vulnerability taking into account a strong concentration of exposure to market and credit risks.

[9] According to local regulations, the maximum allowed exposure to government sector is up to 300% of regulatory capital.

[10] The data on individual bank exposures were taken over from monetary and financial statistics of the CBBH. According to the IMF methodology, the data on Entity securities include also the securities of public companies.

Graph 5.4: Exposure to Government Sector, by Banks, in 2020



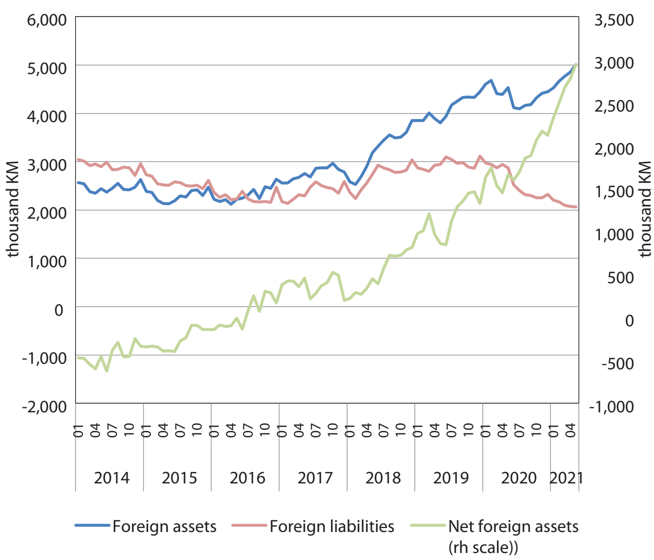
Source: CBBH

The several years long trend of liquid asset growth reversed in 2020, with liquid assets reaching KM 9.3 billion or less by 2.0% compared to the previous year, while liquid asset share in the total assets decreased to 29.3%. Within liquid assets, funds in deposit accounts with foreign banks decreased most by KM 604 million or 23.7% compared to the end of the previous year. Reserve account balance[11] increased by KM 154.5 million or 2.7%, while cash in vaults increased by KM 268.8 million or 21.3% compared to the previous year.

In 2020, a considerable decrease of liabilities towards non-residents was recorded. According to the CBBH data, foreign liabilities of banking sector decreased by KM 794 million or 25.5% compared to the end of the previous year (Graph 5.5). Decrease of foreign liabilities of banking sector was affected by decrease of deposits and loan liabilities towards other non-residents and towards sister legal entities, while liabilities to direct foreign investors remained at roughly the same level as in the previous year. On the other hand, foreign assets of commercial banks during 2020 remained at the level of the last year's amount of KM 4.4 billion, and did not change significantly despite a strong decline of deposits with non-residents.

Under the effect of decrease of foreign liabilities with the unchanged amount of foreign assets, net foreign assets continued its several yearlong growth trend. Since mid 2016, when foreign liabilities became equal with foreign assets for the first time, banks became net creditors towards non-residents, increasing the net foreign asset amount in years.

Graph 5.5: Foreign Assets and Liabilities of Commercial Banks

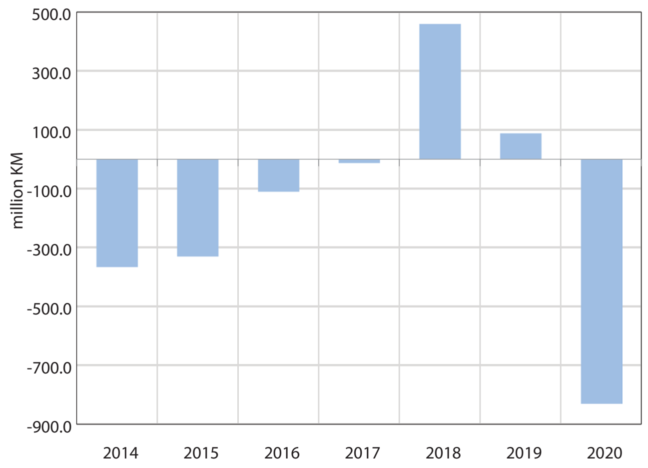


Source: CBBH

BH banking sector in 2020 recorded a net outflow of foreign liabilities in the amount of KM 829.8 million (Graph 5.6). The decline of foreign liabilities resulted from the outflow in all the categories of foreign liabilities, mainly the outflow of liabilities towards related companies from foreign countries. Deposits of related legal entities in 2020 compared to the previous year decreased by even KM 495.3 million or 68.0%. Deposits of other non-residents also decreased by KM 141.3 million or by 18.9% while the liabilities to majority legal owners decreased by KM 156.9 million or by 16.6%. Due to the growth of deposits of resident sectors and decreased spending, and tightened conditions of lending due to stronger market uncertainties, foreign sources of financing decreased. During 2020, financing of lending from domestic sources increased. However, it is important to stress that the structure of local financing sources additionally deteriorated over the observed period due to the increase of share of short-term deposits.

[11] Razvojna banka Federacije BiH is excluded from the data.

Graph 5.6: Flows of Foreign Liabilities in the Banking Sector



Source: CBBH

Text box 3: Network analysis of systemic risk spill-overs

The purpose of the analysis of network structure in BH banking sector is assessment of intensity of potential shocks due to mutual connections, as well as cross-border exposure of domestic commercial banks. The analysis was carried out on the basis of data as of 31 December 2020, in two directions, as: the analysis of mutual balance exposures of 23 commercial banks, with simulation of failure of each of them, and the analysis of cross-border exposure of domestic commercial banks towards banking and public sectors of 34 countries[12]*.*

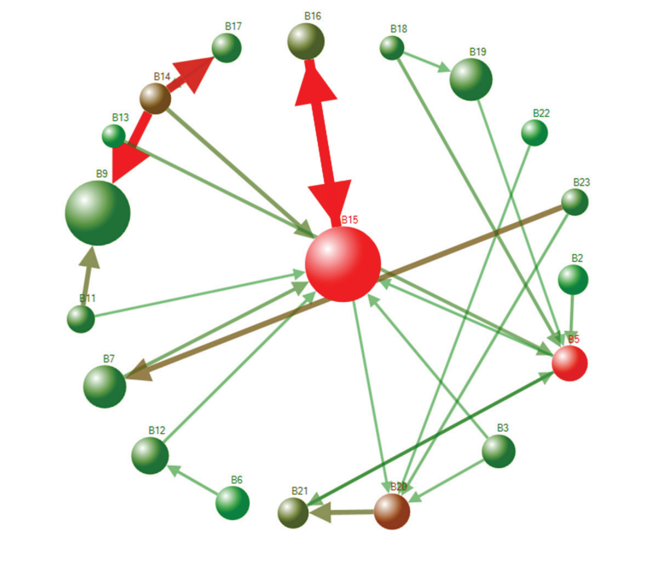
In the network structure analysis, focus is on credit risk, and the main assumption in respect of credit shock is maximum loss on the basis of failure to settle obligations, i.e. the loss of entire amount of claims. As a condition of existence of interbank contagion, the situation was taken when losses exceed a part of regulatory capital above the amount fulfilling the regulatory minimum of capital adequacy rate, which would lead to a decline of capital adequacy rate of individual bank below the prescribed level of 12.0%. The basic finding of the analysis is the number of under-capitalised banks arising from the failure to settle the obligations of individual banks or a foreign bank system. A bank is considered undercapitalised in case capital adequacy rate falls below the minimum regulatory requirement.

[12] The analysis does not include the amounts of claims and liabilities of commercial bank to some of the countries if they account for less than 1.0% of the total bank's regulatory capital

The findings of interbank exposure analysis do not point out the existence of high exposures at the system level, or risks of financial contagion in the local interbank market. According to the Banking Agencies' data, the total interbank exposures of commercial banks in BH as of 31 December 2020 amounted to KM 94.5 million and they were lower by 11.2% compared to the end of 2019. The amount of the total interbank exposures of commercial banks accounted for 2.5% of the total regulatory capital of banking sector, i.e. only 0.3% of the total assets.

The network of interbank exposures in BH banking sector, shown in Graph TO 5.1, is not very dense, as the graph shows only interbank liabilities and claims of banks on a specific day, while the average volume of overnight transactions between individual domestic banks could not be included in the analysis.

Graph TO3.1: Interbank Exposure Network, as of 31 December 2020



Source: FBA, BARS, CBBH

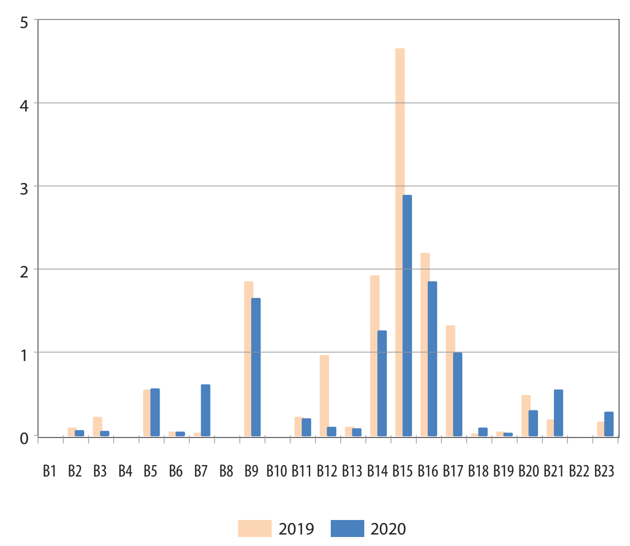
The size of the circles in Graph TO 3.1., representing banks in BH banking sector, is determined by the total asset amount. The amount of interbank exposures is shown through the width of connections and their colour, shown in the range from green to red. The wider the connections and the stronger the red colour, the bilateral claims and liabilities among banks are higher. The colour of circles indicates the number of connections of the bank with other banks. It is also shown in the range from green to red. Banks marked with a stronger red colour are connected with a higher number of banks in the domestic banking sector.

As in the case of network analysis which was carried out a year before, the network analysis results conducted on the basis *of the data from the end of 2020 do not indicate large threats for bank capitalisation arising from interbank exposure. In a credit shock, assuming that, due to the bank's failure to settle its liabilities, the other bank would face a loss in the amount of 100% of its claims towards insolvent bank, capital adequacy would not be jeopardised for any bank.*

The analysis results are not significantly different even if the financing shock is included in the analysis besides the credit shock. If the loss of 50.0% of the exposure amount due to the end of the financing which could not be substituted, is a basic assumption for this shock, the findings of the analysis do not show that any bank would face serious problems or that capitalisation would be endangered. In addition to low interbank exposure, such favourable results of analysis are mainly influenced by the adequate bank capitalisation, which, compared to the end of 2019, was additionally improved in most banks in the sector.

Contagion index and vulnerability index also indicate lower risks compared to the previous year (graphs TO 3.2 and TO 3.3). Contagion index [13] was lower with most banks compared to the end of 2019, including banks with the highest contagion indices in the sector. It shows a lower significance of individual banks for other banks in the sector, which decreases the average percentage of bank losses due to a possible failure of one bank. In case of only five banks, the contagion index was slightly higher than in the end of 2019.

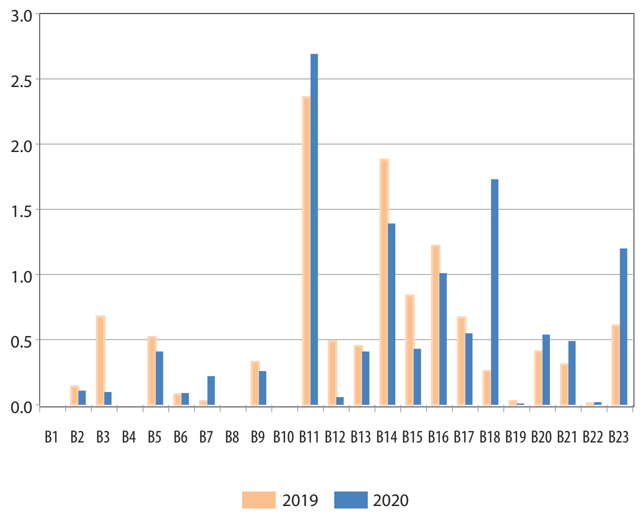
Graph TO3.2: Contagion Index by Individual Banks



Source: FBA, BARS, CBBH

The vulnerability index[14] also shows lower vulnerability of most banks in the sector in case of insolvency of other banks compared to the end of 2019. Out of seven banks with higher vulnerability indices compared to the end of the previous year, two small banks faced a stronger increase of the average percentage of loss due to possible failure of all other banks in the sector, while in case of another, small bank in the sector with the highest vulnerability index in the end of 2020 (Graph TO 3.3), vulnerability to other banks was continually increasing since 2017.

Graph TO3.3: Vulnerability Index by Individual Banks



Source: FBA, BARS, CBBH

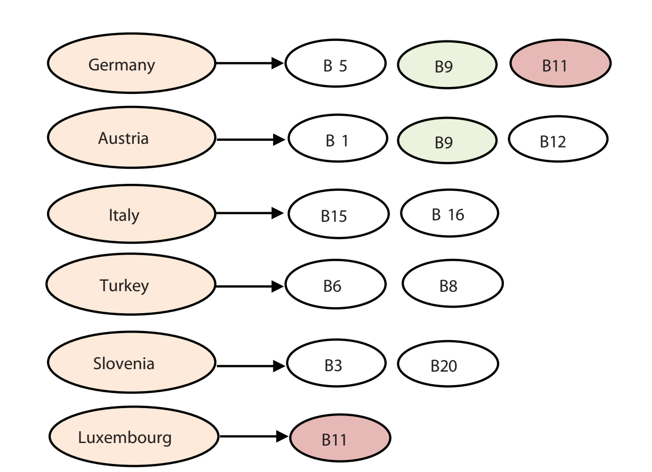
In order to identify foreign banking systems which are systemically important for banks in BH, network analysis of cross-border relations was carried out. The same as in the previous two years, the analysis included two shocks: credit shock and financing shock, with the assumptions identical to those used in the analysis of interbank relations. The analysis of cross-border relations pointed out that the contagion risk from cross-border exposure is higher than from exposure in domestic interbank market. The results of the analysis show that large shocks in several countries towards which banks from BH have significant exposures could have direct contagion effects for some banks in BH, however, the analysis did not show the existence of indirect contagion effects. If the bank with the capital adequacy rate lower than the defined regulatory minimum in the end of 2020 is excluded from the analysis, a slightly lower bank vulnerability was recorded towards cross-border shocks compared to the previous year. Possible large

[13] The contagion index shows a significance of one bank for other banks in the sector, i.e. it shows the average percentage of loss of other banks in case of possible failure of one bank.

[14] Vulnerability index shows how much a bank is vulnerable in case of insolvency of other banks, i.e. it represents an average percentage of loss due to the failure of all other banks in the sector.

shocks in six countries could spill over to one or more banks in BH, and the total of eleven banks in case of large shocks in some of the countries and with the set assumptions would have considerable losses, which would lead to the decline of capital adequacy rate below the regulatory minimum. The spill-over of risks from Germany and Austria is a key risk of cross-border financial contagion for banks in BH while there are significant exposures of some banks towards Italy, Turkey and Slovenia. Two banks showed vulnerability to possible shocks in two countries (Graph TO 3.4). Unlike network analysis conducted on the basis of the data as of 31 December 2019, a lower number of countries from which contagion could be spread to banks in BH was recorded, and also one bank less showing vulnerability to cross-border shocks. Also, two banks less showed vulnerability to shocks from more than one country.

Graph TO3.4: Cross-border Spillover of Systemic Risks on Banks in BH

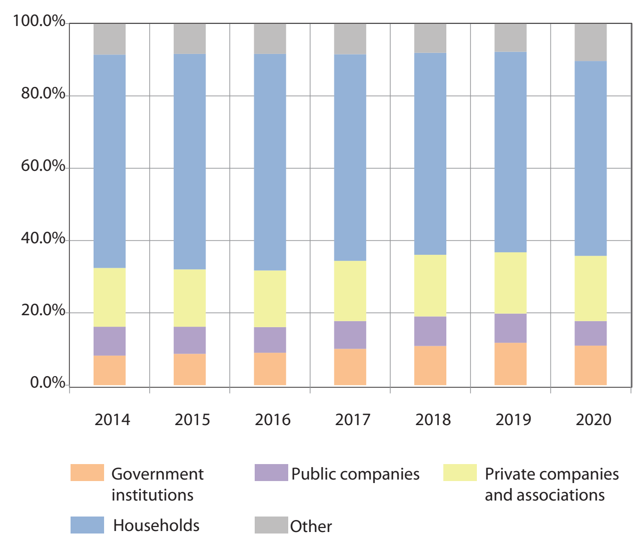


Source: CBBH, FBA,BARS

Lower bank vulnerability arising from interbank exposure, and lower vulnerability to cross-border shocks, and non-existence of indirect contagion effects results from slightly lower exposure and better capitalisation of banks in 2020. Although the network analysis did not identify the risk of spreading contagion through the system, but only risks due to cross-border exposures for some banks, which would not spill over to other banks in the sector, the fact should not be neglected that banks vulnerable to shocks from some countries, due to strong relations firstly with mother bank and sister companies, include several large banks in the sector. In the final assessment of the risks arising from inter-bank and cross-border exposures, it should be stressed that the analysis, due to limited data, did not include average overnight transactions among banks, and inter-connection of bank sector and other financial sectors in the country. Also, when assessing risks arising from interbank and cross-border exposure, the existing risks in the country and abroad arising from the coronavirus pandemic should not be neglected either, so, depending on the intensity of spill-over of risks from real to financial sector, stronger pressures on capitalisation can be expected, particularly in case of smaller and less resilient banks.

In 2020, a dynamic growth of deposits of domestic resident sectors was continued. The total deposits in the end of the year amounted to KM 26.18 billion, and increased by 9.8% compared to the end of 2019. In the total deposit structure, household deposits were the most important participating with 53.8% in the total deposits. In the end of 2020, these deposits amounted to KM 14.1 billion and increased by KM 889 million or 6.7% compared to the previous year. Deposits of private companies, participating with 18.1% in the total deposits, continued their upward trend, and increased in 2020 by KM 698.4 million or 17.3% compared to the previous year. In 2020, a slower growth of government institutions' deposits was recorded, amounting to 1.8%, compared to earlier years, while the value of deposits of public companies declined compared to the end of 2019 by 7.7%. (Graph 5.7).

Graph 5.7: Sectoral Structure of Deposits



Source: FBA, BARS, CBBH

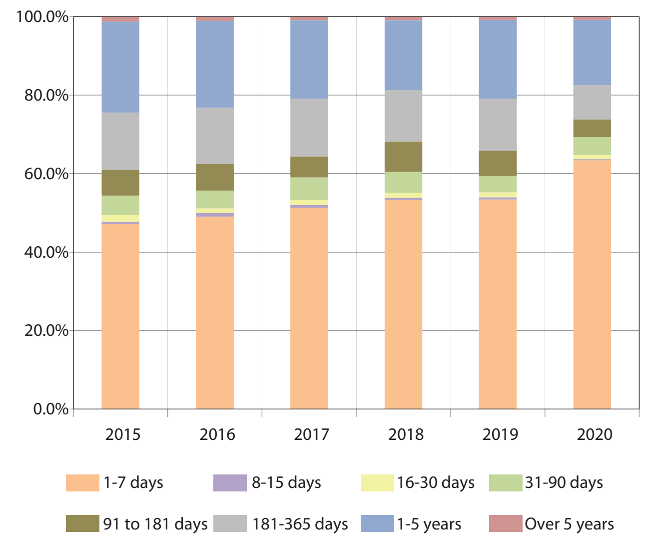
According to the CBBH data, in the end of 2020, deposits in transaction accounts and demand deposits participated with 33.2% and 26.7% in the total household deposits. At the same time, several years long downward trend of the share of long-term deposits in the total deposits continued, so the share of long-term deposits in the total deposits in 2020 decreased by 2 percentage points compared to the previous year, to the level of 37.5%.

The several years long upward trend of household deposits continued mainly due to the growth of deposits in transaction accounts (KM 537.9 million or 13.4%) and demand deposits (KM 182.8 million or 5.2%). On the other hand, although growth was recorded in 2019, in 2020, there was a decline of short term deposits and long term deposits. Long term deposits of households amounted to KM 5.15 billion at the end of the year, having decreased by KM 72 million or 1.4% compared to 2019, while short term deposits were lower by KM 129 million or by 26.0% amounting to KM 367.7 million. The weakening of economic activity and increased uncertainty due to the pandemic brought about uncertainty and fear of citizens, resulting in a decrease of personal spending and increase of the inclination to accumulate funds in bank accounts, which brought about a growth of deposits of households in transactions accounts and demand deposits.

In 2020, due to low interest rates and non-existence of alternative forms for safe investments, and increased uncertainty due to the coronavirus pandemic, a dynamic growth of deposits in transaction accounts and demand deposits significantly contributed to the decrease of residual maturities of the total banking sector liabilities compared to the previous year.

Deposits with maturities from 1 to 7 days in 2020 recorded a dynamic growth of 20.4% and increased their share in the total deposits reaching 63.4% at the end of the observed period. Unlike previous year, the share of deposits with maturities from 1 to 5 years decreased by 3.3 percentage points from 20.0% in 2019 to 16.7% in 2020, which also contributed to the deterioration of deposit maturity structure. On the basis of the data from the end of 2020, deposits with remaining maturities shorter than one year accounted for 82.6% of the total deposits, so the share of these liabilities in the total liabilities was higher by 3.4 percentage points compared to the previous year. On the other hand, deposits with remaining maturities longer than one year decreased their share over the observed period in the total deposits to 17.4%, while long term deposits participated with only 0.8% in the total deposits (Graph 6.8). The highly adverse structure of the sources of funds, which was additionally deteriorated in 2020, with increased risk of maturity transformation of short-term sources into long-term investments, can represent a limiting factor for a future credit growth, particularly in the current circumstances of a strong contraction of economic activity brought about by the coronavirus pandemic, where long-term lending to economy will be necessary for economic growth and recovery.

Graph 5.8: The Total Deposit Structure by the Remaining Maturity

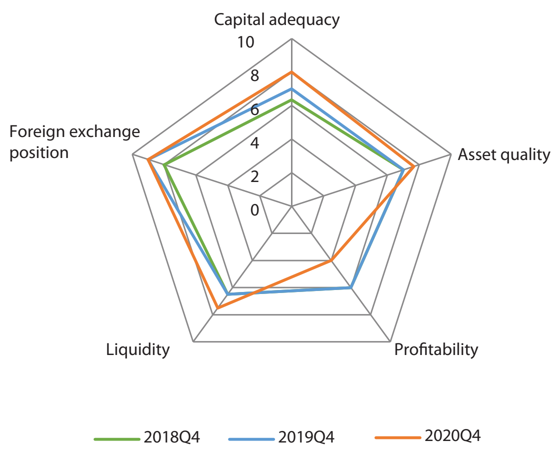


Source: FBA and BARS, CBBH

The assessment of the banking sector stability was summarized in the chart of financial soundness indicators, and shows the changes of the main indicators on the basis of which capital adequacy, asset quality, profitability, liquidity and foreign exchange risk are assessed in banking sector. The chart shows assessments for the previous year and their values for the period of comparison, i.e. the previous two years. General assessment of banking sector stability indicators in 2020 shows that BH banking sector is stable, adequately capitalised, highly liquid, with increased resilience to risks despite decreased profitability (Graph 5.9). The assessment of banking sector stability indicators is at satisfactory level, while indicators improved in all segments except for the profitability segment, where assessment significantly decreased. In

2020, banks improved capitalisation indicators due to the implementation of new regulations and decrease of the total risk exposure and increase of regulatory capital. By increase of capital, banks increased their absorption power for potential shocks, which, in the conditions of the coronavirus pandemic and its negative consequences on the entire economy contributed to preserving the stability of BH banking sector. Indicators of asset quality remained on the several years long trend of improvement at the system level, and the improvement of the quality of credit portfolio over the previous three years impacted the improvement of the assessment in this segment. Decrease of non-performing loans at the system level with the improvement of the quality of credit portfolio was present in almost all the banks so credit risk with most banks was restricted. BH banking sector at the end of 2020 showed a significantly lower net profit and recorded lower values of indicators of return on average assets and return on average equity compared to the same period of the previous year. High grades in liquidity segment, particularly in the segment of foreign exchange position, show that banking sector remained highly liquid, and, due to the currency board arrangement, foreign exchange risk is minimal. Due to the continuous decrease of shares of indexed and foreign currency loans in the total loans, a slight improvement of the assessment in foreign exchange reserve segment was recorded.

Graph 5.9: Map of the Banking Sector Financial Soundness Indicators



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

Source: CBBH

BH banking sector at the end of 2020 was adequately capitalized and, except for one bank, all the banks in the system met the regulatory requirements in respect of capital adequacy and financial leverage ratio[15]. Tier 1 capital to the total risk exposure amount and regulatory capital to the total risk exposure amount at the end of 2020 amounted to 18.1% and 19.2% respectively, while the financial leverage ratio at the banking sector level amounted to 10.19%. In 2020, the increase of regulatory capital was KM 50.3 million or 1.4% compared to the same period of the previous year, while at the same time Tier 1 capital decreased by the same percentage. The lower value of Tier 1 capital was impacted by a higher amount of presented losses with one bank, while regulatory capital recorded an increase due to the growth of Tier II capital, firstly due to the lower value of general impairments for credit risk compared to the previous year.

The total amount of risk exposure was KM 19.4 billion. Out of the total risk exposure, the credit risk weighted exposure accounted for KM 17.37 billion or 89.6% of the total risk exposure, exposures for market risk accounted for KM 213.9 million or 1.1% of the total risk exposure, while risk exposure for operational risk accounted for KM 1.8 billion or 9.3% of the total risk exposure.

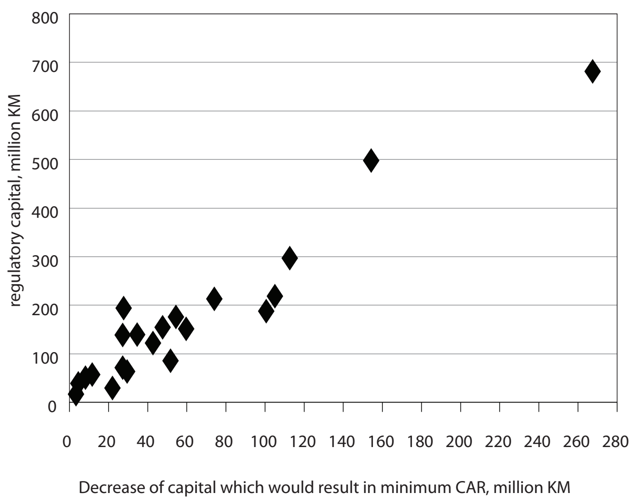
Except for one bank, the recapitalisation of which is expected as soon as FBH Commission for Securities functions, all the banks in the system were adequately capitalised, however, in case of several small banks, rather small decreases of regulatory capital would endanger the fulfilment of the prescribed level of capital adequacy (Graph 5.10)[16]. In deteriorated macroeconomic circumstances brought about by the coronavirus pandemic, pressures on banking sector capitalisation are expected, which in the period ahead could jeopardise the operations of banks with much lower capital positions compared to the rest of the system. On the other hand, the graph shows that most of banks with

[15] Decisions on calculating bank capital („Official Gazette of FBH", ref :81/17 and „Official Gazette of RS", ref: 74/17) have defined the methodology of calculation as well as regulatory framework for monitoring the financial leverage amount. Banks are obliged to ensure and maintain the financial leverage rate, as a ratio of Tier 1 capital and the measure of the total exposure in the minimum amount of 6.0%. The total exposure represents the value of exposure of balance sheet position assets decreased by value adjustments and off-balance sheet items decreased by loan loss provisions subject to the application of conversion factors according to the level of risk which off-balance sheet items are exposed to.

[16] The graph shows how much regulatory capital should decrease for each bank, with the total weighted risk from the end of 2020, to lower the capital adequacy rate to the regulatory minimum of 12.0%.

the unchanged level of risky assets could stand a significant decrease of regulatory capital before CAR goes down to the lower limit of regulatory minimum.

Graph 5.10: The Effect of Simulated Regulatory Capital Decrease on CAR, by Banks Q4 2020



Source: FBA, BARS, CBBH

During 2020, five year trend of improvement of asset quality indicators at the system level continued, with a significant improvement of the credit portfolio quality evident in almost all the banks over the recent three years.

The share of non-performing in the total assets in the end of 2020 amounted to 4.0%, representing a decrease of 1.22 percentage points compared to the end of the previous year. Decrease of non-performing assets at the system level was mainly the result of accounting and permanent write-off of assets estimated as loss and conducted activities for the collection of non-performing loans. These are loans which were in banks' balance sheets for at least two years, and were declared due and recorded as cost in 100% amount. In 2020, banks wrote off KM 45.8 million of assets and KM 2 million of interest estimated as loss. The largest part of non-performing assets were non-performing loans which in 2020 decreased by KM 262.7 million (17.1%). The activities conducted by banks regarding the write-off of non-performing loans and also favourable financing conditions reflected in low interest rates also to a lower degree contributed to the decrease of non-performing loans.

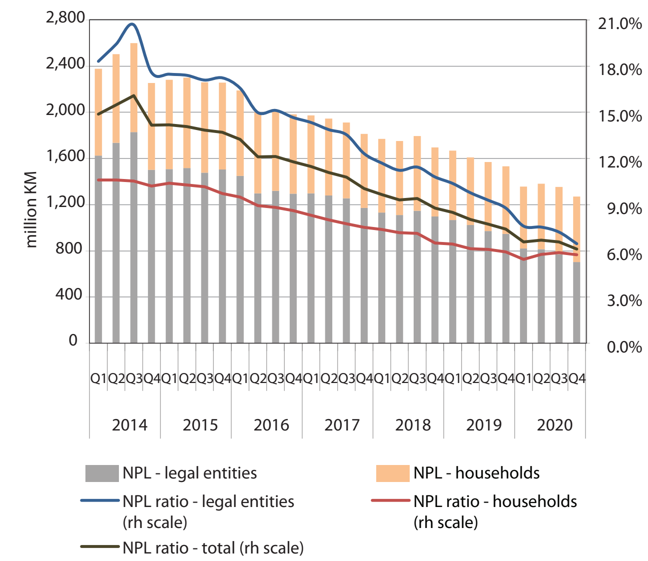
Unlike previous year, when the total loans recorded the 7.0% annual growth rate, in 2020, the absence of credit growth was registered so the level of the total loans did not change significantly, staying at the level of KM 20.7 billion. Due to the beginning of the implementation of new regulations related to the obligation of accounting write-off of non-performing loans, they significantly decreased by KM 262.7 million or 17.1%. Although these write-offs influenced the total level of loans, the share of non-performing in the total loans decreased by 1.29 percentage points compared to the previous year and in the end of 2020, it amounted to 6.12%. The average coverage of non-performing loans with provisions in the end of 2020 at the banking sector level amounted to 78.4% and compared to the previous year, it was higher by 1.4 percentage points.

The implementation of regulations including the accounting write-off of uncollectible claims significantly influenced the continuous improvement of this indicator since the beginning of 2020. The low level of non-performing loans in the total loans was partly maintained due to the measures adopted by the Banking Agencies, mainly the moratorium introduced by banks for the customers which in the coronavirus pandemic encountered problems in the repayment of their debts. According to the available information of Entity Banking Agencies, in the end of 2020, at the system level, the total of KM 2.4 billion or 11.5% of the total loan amount was covered by some of provisional measures.

One billion of KM or 6.7% in the Federation of BH and 20.0% or KM 1.4 billion in Republika Srpska of the total gross loans extended by banks was covered by provisional measures.

The share of non-performing in the total loans was significantly decreased in the corporate sector, by 2.3 percentage points, and in the end of 2020, it amounted to 6.5%, while in the household sector, this indicator was lower by 18 basis points compared to the end of 2019 amounting to 5.8%.

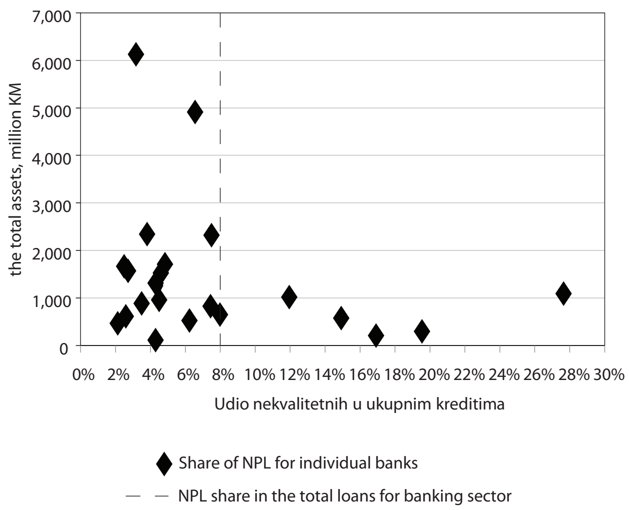
Graph 5.11: Credit Portfolio Quality



Source: FBA, BARS, CBBH

Although the trend of weakening of credit risk, i.e. decrease of non-performing in the total loans continued in 2020 with almost all the banks, credit risk remained pronounced with several smaller banks in the system (Graph 5.12). Taking into account a strong contraction of economic activity and significant deterioration of macroeconomic conditions as negative consequences of the coronavirus pandemic, the growth of credit risk can be expected in the period ahead at the banking sector level. The banks which besides strong credit risk also have weak capital positions will be most affected.

Graph 5.12: The Share of Non-performing in the Total Loans by Banks at 2020 End



Source: FBA, BARS, CBBH

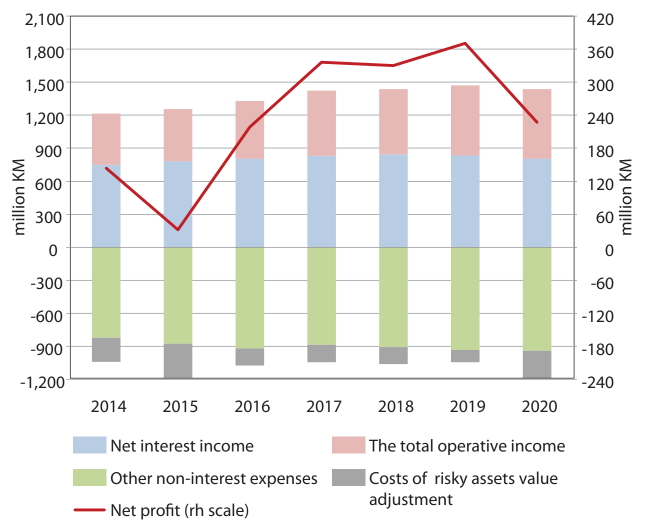
In 2020, there were no large changes in respect of interest risk exposure, despite the fact that the share of loans with variable interest rate, i.e. initial interest rate fixation period up to one year in the total new loans increased compared to loans extended in 2019. In the household sector, the share of these loans in the total newly approved loans to households was lower by 39 basis points compared to the previous year amounting to 53.7%. On the other hand, in the corporate sector, the share of loans with variable rate and the fixation of interest rate up to one year increased by 2 percentage points amounting to 67.3%. The share of these loans in newly approved loans during the year in both sectors increased from 59.9% in 2019 to 61.7% in 2020. Long-term sources of bank financing are mainly contracted with variable interest rate, related to EURIBOR as a benchmark rate, so the bank preference to approve loans with variable interest rate makes sense when lending is done from such sources. Having in mind that the structure of sources of bank financing in BH in the recent five years (Graph 5.8.) was dominated by short-term domestic deposits, and at the same time, the contracting of loans with fixed interest rate was intensified, banks expect that at least in medium term they will not have to significantly increase deposit interest rates. From the view of risk management, contracting of loans with fixed interest rates, i.e. longer period of interest rate fixation, is a kind of protection for a bank from the growth of indirect credit risk.

At the end of 2020, BH banking sector presented a much lower net profit and recorded lower values of indicators return on average assets and return on average equity compared to the same period of the previous year.

Net profit of banking sector in 2020 amounted to KM 227.1 million, which is lower by even 38.7% than in the end of the previous year. Decline of banking sector profit was recorded as a consequence of the significant decline of the total income with simultaneous increase of non-interest expenses and costs of risky asset value adjustments (Graph 5.13). Costs of impairments of assets at risk increased significantly by KM 141.16 million compared to the same period of the previous year due to the implementation of new regulations, and the largest increase was recorded in two banks in the system, which applied stricter standards in respect of provisions for expected loan losses compared to regulatory requirements.

The largest part of the banking sector profit remained concentrated in several large banks. The two largest banks recorded profit higher than half of the profit of entire sector, even 52.4%, while the four most profitable banks generated 70.1% of the total net profit of banking sector.

Graph 5.13: Banking Sector Profitability



Source: FBA, BARS, CBBH

The dominant source of banking sector income, interest income, was influenced by decreased lending and low interest rates on loans to households and non-financial companies, and continued their downward trend in 2020. The total interest income at 2020 end amounted to KM 993.54 million and was lower by KM 35.4 million or 3.4% compared to the same period of the previous year. The strongest effect on the decrease of the total interest income came from decreased income from extended loans, which, compared to the previous year, was lower by KM 28.1 million (3.1%). At the same time, decreased income from placements to other banks in the amount of KM 1.1 million, and decreased income from deposits held by banks with other deposit institutions in the amount of KM 3.1 million additionally affected the decrease of interest income.

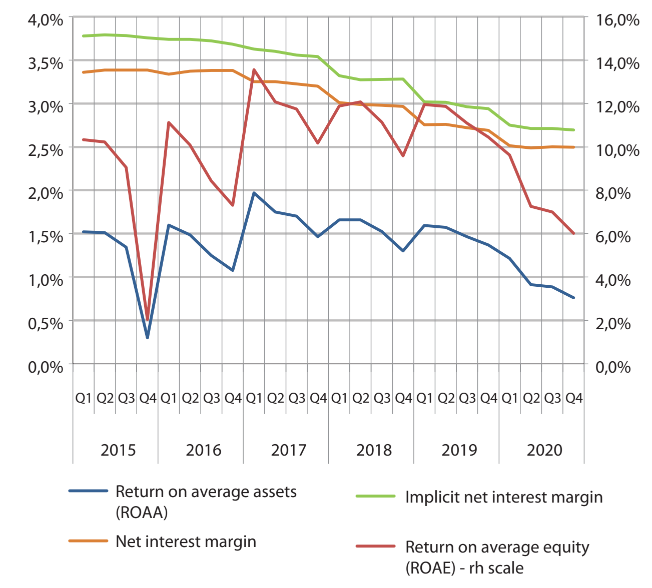
On the other hand, favourable financing conditions for banks mainly contributed to decreased interest expenses at the banking sector level. The total interest expenses and other similar expenses in 2020 amounted to KM 189 million and were lower by KM 4.1 million or 2.1% compared to the same period of the previous year. Unlike earlier years, when banks managed to compensate for the decline of interest income completely by decreasing interest expenses, the impact of savings in interest expenses weakened during the previous two years. Net interest income recorded a decrease of their value, so in 2020, they were lower by KM 31.3 million or 3.7% compared to the previous year.

Operating income, which had been the strongest generator of growth of the total income in 2020, recorded a slow decline (0.7%), mainly impacted by decreased fees for services and decreased income from foreign exchange operations, but the upward trend of their share in the total income continued. In the end of 2020, operating income in banking sector amounted to KM 631.35 million, their share in the total banking sector income amounting to 44.0% at the end of the observed period.

Profitability indicators ROAA and ROAE in the end of 2020 amounted to 0.76% and 6.01% respectively and their values decreased by 61 bp and 4.44 percentage points compared to the same period of the previous year. Decline of profitability indicators resulted from a significant decrease of profit which banks reported in the end of 2020 compared to a slight increase of average assets and equity (Graph 5.14)[17].

[17] Implicit net interest margin is a ratio of net interest income and average interest bearing assets. Average interest bearing assets at the end of the fourth quarter were calculated as the average balance of interest bearing assets at the end of the fourth quarter of the previous year and the fourth quarter of the current year.

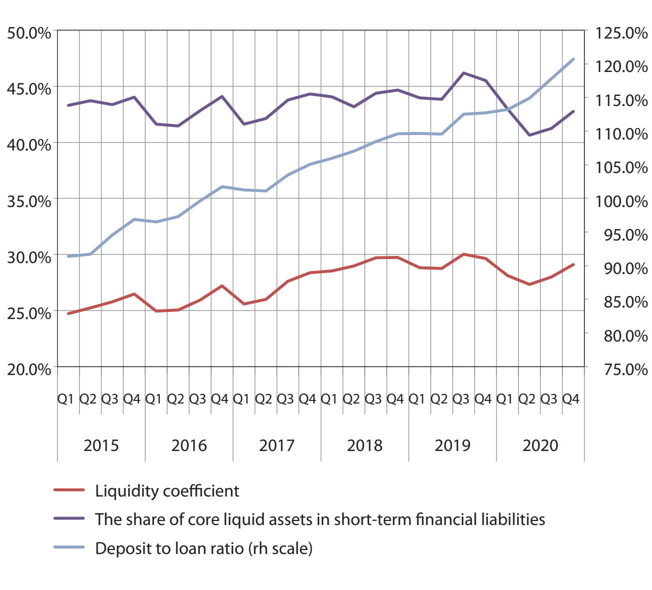
Graph 5.14: Profitability Indicators



Source: FBA, BARS, CBBH

During 2020, the satisfactory values of banking sector liquidity indicators were kept, despite the decrease of core liquid assets. However, maturity structure of sources of funds remained unfavourable resulting in the maturity transformation risk for banks. Liquidity maintenance is a basic obligation of a bank and the assumption for its sustainability in the financial market, and one of the key preconditions for strengthening confidence in the stability and safety of banking sector. High levels of BH banking sector liquidity indicators were recorded during 2020, mainly due to the continuing trend of deposit growth (Graph 5.15).

Graph 5.15: Liquidity Indicators



Source: FBA, BARS, CBBH

In the end of 2020, liquid assets accounted for 29.1% of banking sector assets, while 42.7% of short-term liabilities was covered by liquid assets. Liquidity Coverage Ratio (LCR) representing the ratio between the liquidity buffer level and the total net liquidity outflows (in duration of 30 calendar days during the stress period) at the banking sector level amounted to 247.1%. In the end of 2020, all the banks met requirements related to LCR, most of them well above the defined regulatory minimum [18]. High values of liquidity indicators at the system level point out that banks have considerable liquidity buffers, which, besides banks' short-term liabilities growth in 2020 will contribute to the maintenance of stability in deteriorated macroeconomic conditions.

Text box 4: Stress tests

Despite deteriorated macroeconomic circumstances, BH banking sector recorded an improvement of capitalisation and asset quality indicators compared to the end of 2019, and due to a good starting base for stress tests, the situation from the end of 2020 banking sector managed to maintain stability even with assumed shocks in stress tests. Despite the ongoing COVID-19 situation, which will inevitably be reflected in the credit portfolio quality and banking sector profitability, banking sector would not suffer a considerable decrease of capitalisation in baseline scenario in the three year period of stress test. Results of stress tests point out that capitalisation at the sector level would be retained significantly above the regulatory minimum of 12.0%, even in stronger extreme scenario which includes a considerable additional deterioration of macroeconomic conditions in the country and abroad.

On quarterly basis, the CBBH conducts top-down stress tests for banking sector in the country, which is one of the basic tools for the assessment of its resilience to potential shocks from macroeconomic environment and banking sector. Stress tests are used to assess the capacity of the entire banking sector and also individual banks to stand potential losses which would occur in case assumed shocks materialise.

With purpose of assessing the banking sector solvency, three macroeconomic scenarios have been considered – one baseline and two adverse scenarios. Each scenario includes projections

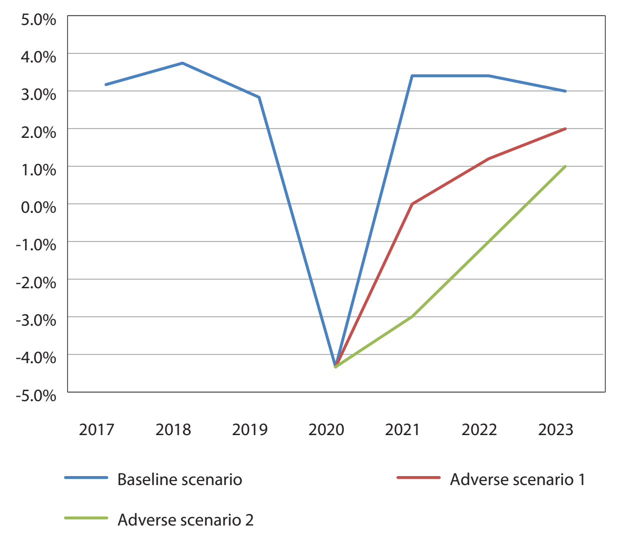
[18] According to the Decision on managing bank liquidity risk („Official Gazette FBH", ref. 39/21) and the Decision on liquidity risk management („Official Gazette RS", ref. 62/21) the minimum liquidity coverage ratio is 100%.

of a high number of macroeconomic and financial variables for the period 2021 - 2023. Scenarios and assumptions for stress tests conducted on the basis of data from the end of 2020 are set in the light of the most recent circumstances in macroeconomic environment which in 2021 are also determined by the COVID-19 pandemic, and also expected implications for BH banking sector.

The baseline scenario is based on the projections of trends of the main macroeconomic indicators and the CBBH assumptions on the trends of other relevant indicators in the economy and banking sector of BH, and projections of trends in European financial markets of the European Central Bank (ECB) and the Organisation for Economic Cooperation and Development (OECD). The stress test includes two adverse scenarios, which are different by the intensity of shocks and the time period needed to recover economic activity. A mild adverse scenario assumes continued weak economic activity. In the first year of stress testing, the same level of economic activity is assumed as in 2020, with a slow economic growth in the next two years, which is still not sufficient to return economic activity to the level before the pandemic. A stronger adverse scenario assumes unforeseen negative developments in restraining the COVID-19 pandemic, which could result from virus mutations, insufficient vaccine efficiency in case of new virus variants, delays in production and distribution or the very process of vaccination of population, a new wave of contagion due to premature relaxation of the measures and other unexpected negative events which would weaken the economy further, i.e. would lead to continuing decline of economic activity both at the global level and in BH. A continuing decline of external and domestic demand is assumed and decreased inflow of remittances from abroad. In this scenario, GDP records a decline in the first two years of stress testing and as early as in 2023, a slow economy recovery starts. The scenario itself is based on quite strict assumptions and is aimed at estimating the banking sector resilience to extremely strong shocks, either brought about by the COVID-19 pandemic or additional shocks for economic activity, which cannot be predicted.

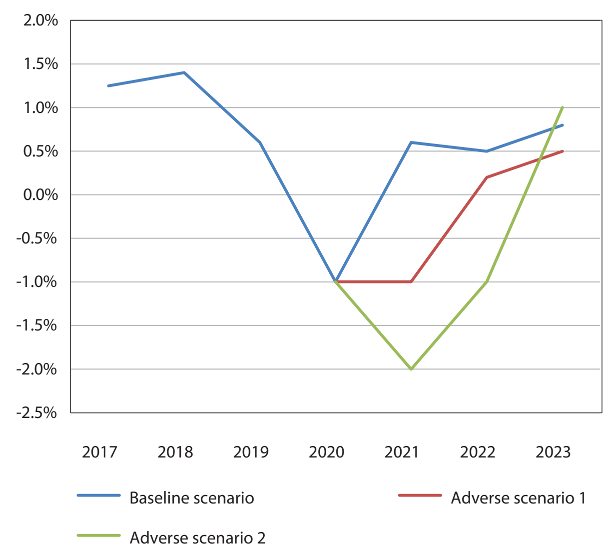
The quantification of scenario includes the projections of macroeconomic and financial variables – such as real GDP, inflation, interest rates in the euro area, long-term interest rates on loans to households and companies, real estate prices and credit growth. The framework for stress tests includes the effect of risk of interbank contagion, based on the network analysis of spill-over of systemic risks in BH banking sector. The effects of this risk are estimated at the end of the third year of stress test, and as interbank exposures are not significant, these effects are quite weak and would have almost no impact on capital adequacy ratio at the banking sector level. Graphs from TO4.1 to TO4.6 show the basic assumptions used in the stress tests scenarios.

Graph TO4.1: Real Growth of GDP



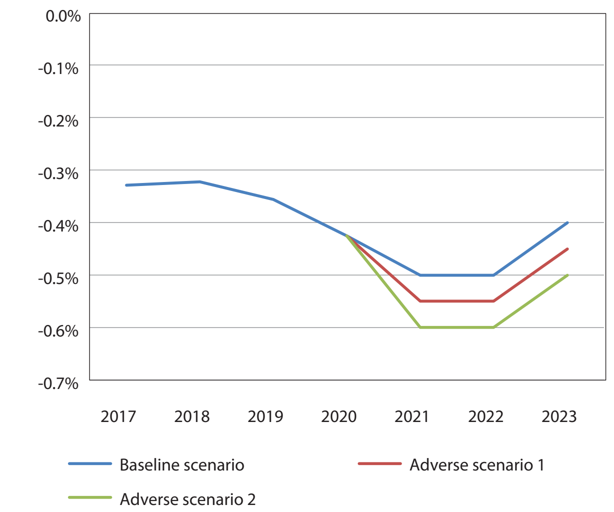
Source: CBBH

Graph TO4.2: Inflation Ratio



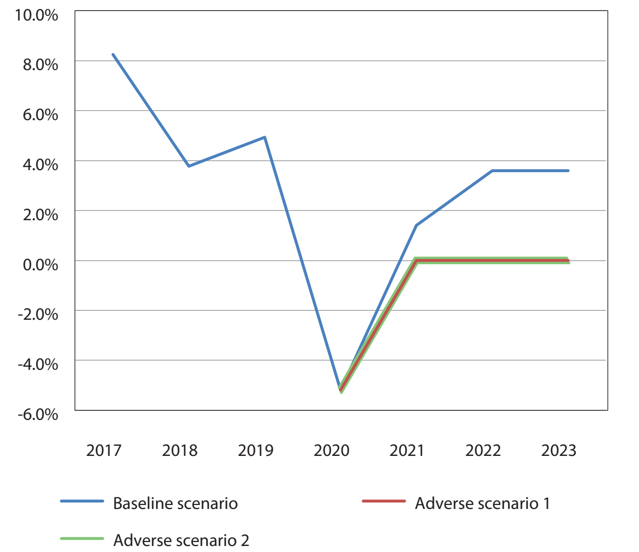
Source: CBBH

Graph TO4.3: Euribor



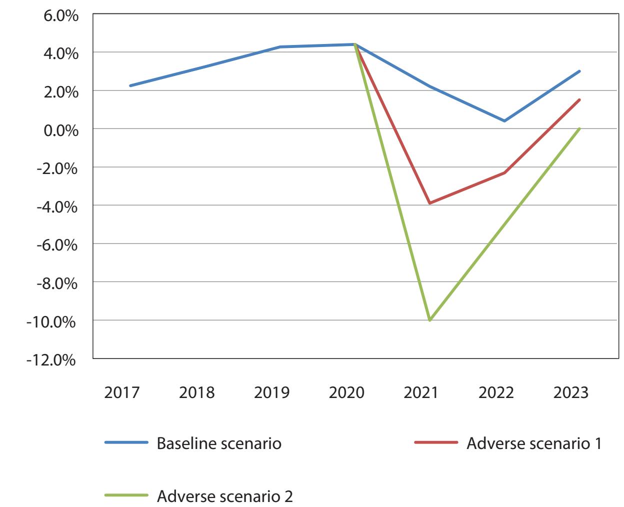
Source: CBBH

Graph TO4.5: Credit Growth, Companies



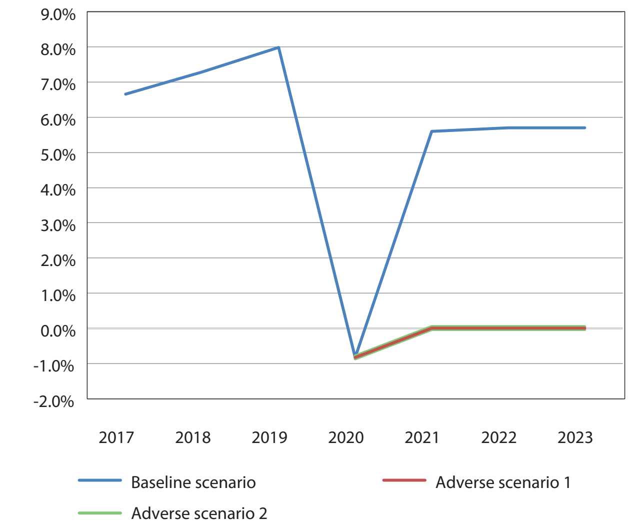
Source: CBBH

Graph TO4.4: Real Estate Price Growth



Source: CBBH

Graph TO4.6: Credit Growth, Households

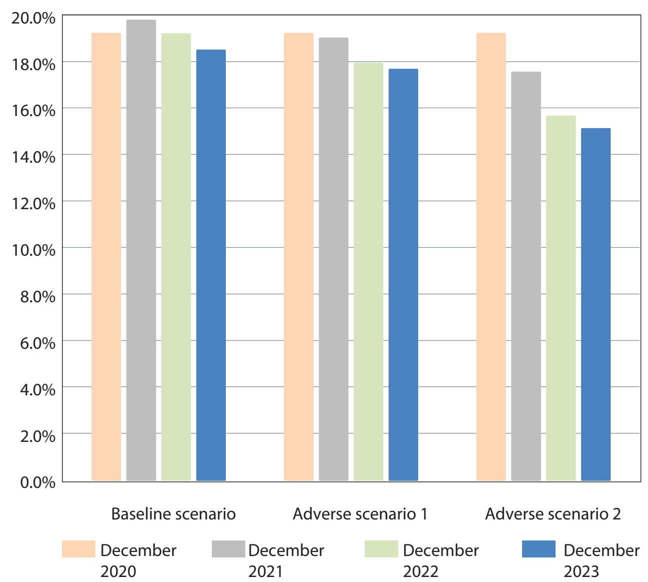


Source: CBBiH

The impact of stress tests on capital adequacy ratio was quantified on the basis of the initial balance as of 31 December 2020. Although the ongoing COVID-19 pandemic will result in consequences on some indicators in the banking sector, such as credit portfolio quality and the banking sector profitability, with the set assumptions in the baseline scenario, banking sector would not suffer considerable decrease of capitalisation in the three year period of stress testing. Observing the results of stress tests for individual banks, besides the bank which according to the actual 2020 end data had a lower capital adequacy ratio than the regulatory minimum, assuming that banks would not have a possibility for recapitalisation, another small bank would fail in maintaining the capital adequacy ratio within the regulated limits in the third year of the baseline scenario, while the total recapitalisation needs of these two banks would amount to KM 36.4 million. The share of assets of these banks in the total banking sector assets according to the data from the end of 2020 amounted to only 5.2%, on the basis of which it can be concluded that no systemic risks for banking sector in BH have been identified in the situation of the ongoing shock brought about by the COVID-19 pandemic.

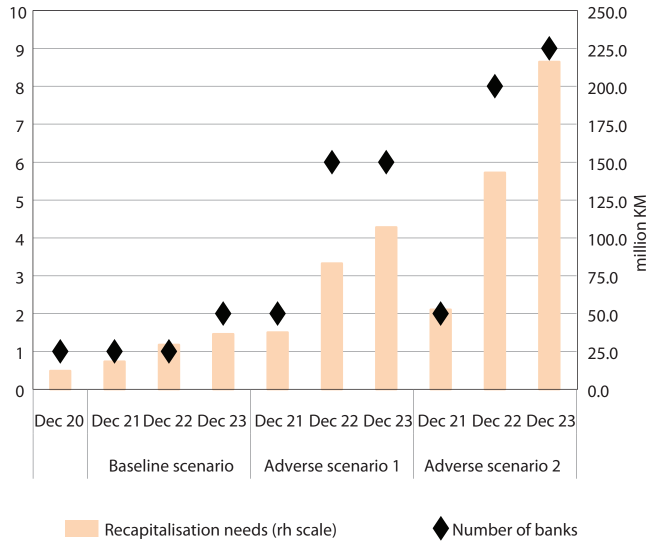
In case of materialization of the shocks assumed in extreme scenarios, banking sector would, mainly due to the existing *good capital base, be capable of absorbing the assumed shocks. In the Adverse 1 scenario, capital adequacy ratio at the aggregated level would decrease from initial 19.2% to 17.6% (Graph TO4.7). In this scenario, the total of six banks would have their capital adequacy ratios lower than regulatory minimum as early as in the end of the second period of stress test. The total capital needed to return the capital adequacy ratios of these banks to the regulatory minimum of 12.0% in 2023 would amount to KM 107 million. In Adverse 2 scenario, capital adequacy ratio at the aggregate level would go down to 15.1%, and the total of nine banks would not satisfy the minimum defined capital level. Recapitalisation needs at the system level would amount to KM 216.2 million, which is 0.6% of gross domestic product from 2020 (Graph TO4.8). Despite such strong shocks assumed in stress tests, banking system on the whole would retain stability.*

Graph TO4.7: Banking Sector Capital Adequacy Ratio



Source: CBBH

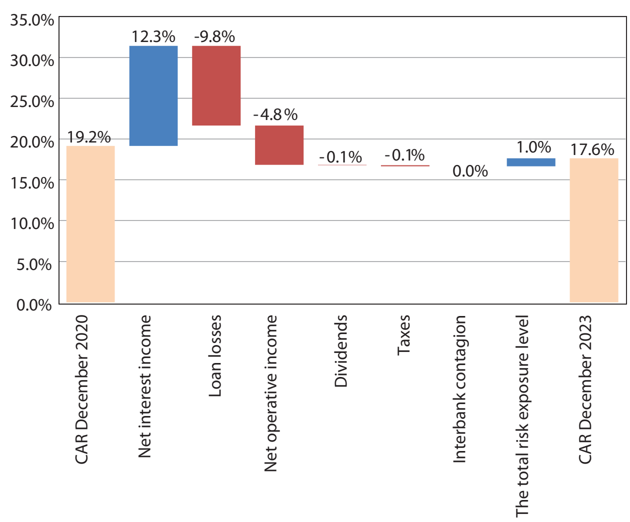
Graph TO4.8: The Number of Banks with Insufficient Capital and Recapitalisation Needs



Source: CBBH

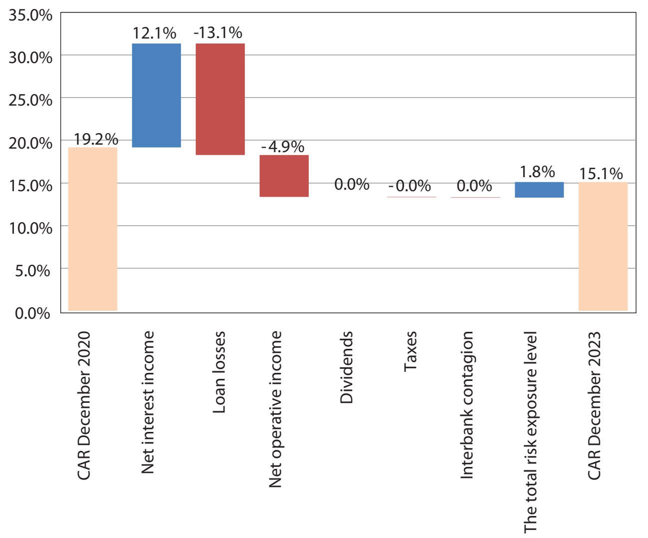
Graphs TO4.9 and TO4.10 show the contributions of some positions of balance sheet and profit and loss statement on the change of capital adequacy ratio at the system level, cumulative, in adverse scenarios, in the period from the end of 2020 to the end of 2023.

Graph TO4.9: Impact of Individual Positions on Capital Adequacy Ratio, Adverse scenario 1



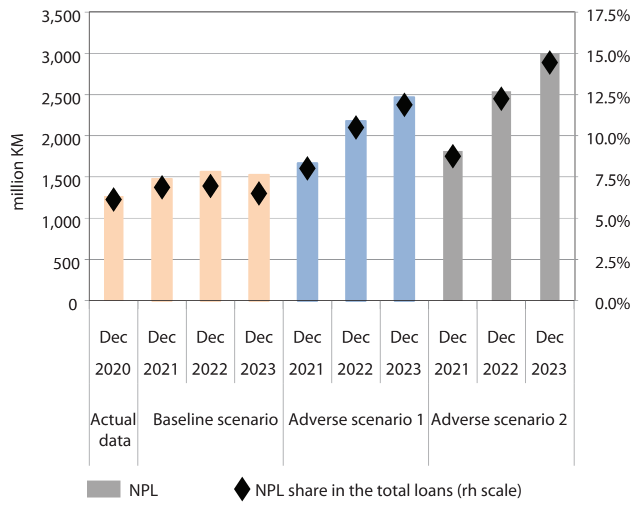
Source: CBBH

Graph TO4.10: Impact of Individual Positions on Capital Adequacy Ratio, Adverse scenario 2



Source: CBBH

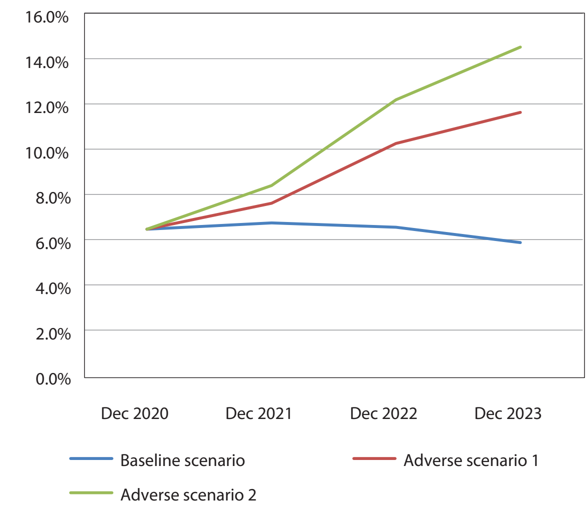
Graph TO4.11: Non-performing Loans and Share of Non-Performing in the Total Loans



Source: CBBH

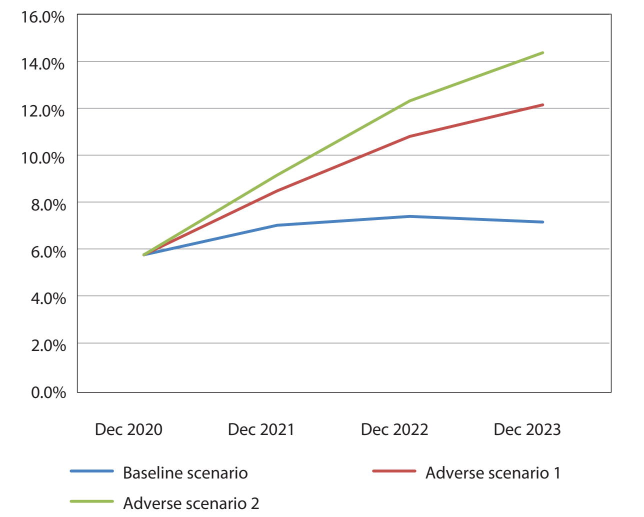
Credit risk in stress tests is distinguished as the most important risk in BH banking sector. The results of stress tests indicate that the quality of credit portfolio is very vulnerable to changes in macroeconomic conditions. The decline of capital adequacy ratio in the three year period is under the dominating impact of losses based on the growth of provisions due to the deterioration of credit portfolio quality. The non-performing loans to the total loans ratio, as a basic measure of credit risk, slowly deteriorates in the first two years of the baseline scenario, so consequently, loan loss provisions increase. Their growth is particularly strong in the second period of stress testing, as a delayed pandemic effect on the growth of non-performing loans which was slowed down due to the implementation of moratorium on repayment of loans in the previous period. The forecasted economic recovery would have a positive effect on the credit portfolio quality in the third year of stress testing, so, ultimately, in 2023 of the baseline scenario, the non-performing loans to the total loans ratio would start to decrease compared to the end of 2022. In adverse scenarios, the level of non-performing loans increases considerably, as well as the non-performing loans to the total loans ratio, both in corporate and in household sector. Consequently, banks will have to increase significantly credit risk provisions, which will affect their profitability. Graphs from TO4.11 to TO4.13 show the quality of credit portfolio by years and scenarios.

Graph TO4.12: The Share of Non-performing Loans in the Total Loans to Companies



Source: CBBH

Graph TO4.13: The Share of Non-performing Loans in the Total Household Loans



Source: CBBH

5.2. Non-banking financial sector

The sector of non-banking financial institutions is still an underdeveloped segment of financial market, with a very modest share in the total assets of financial intermediaries. (Table 5.1). The corona crisis did not result in significant consequences in microcredit and leasing sector, partly because these sectors were treated with provisional measures of Banking Agencies. The largest and the most significant segment of non-banking financial sector, insurance and reinsurance companies indirectly suffered the consequences of the pandemic, reflected in the decline of calculated premiums in both categories of insurance, life and non-life insurance.

The operations of microcredit sector in 2020 were marked by: asset growth, growth of gross loans, capital increase, accompanied by the growth of the value of delayed loans, and significant deterioration of financial performance compared to the previous year. In the end of 2020, 28 microcredit organisations (MCO) operated in BH, out of it, 13 microcredit foundations (MCF) and 15 microcredit companies (MCC). During 2020, one new microcredit company was established. The total assets of microcredit sector in the end of 2020 were higher by 9.0% compared to 2019, while loans increased by 10.2% (Table 5.2). Out of the total microcredit amount, 97.5% was extended to private individuals, the agriculture sector financing remaining primary (30.2%), followed by the service sector (16.0%) and housing needs (15.5%).

In 2020, the loans the repayment of which is in default for more than one day took the share of 3.8% in the total credit portfolio. Although the indicator of risk of microcredit sector credit portfolio was within the defined standard of 5.0%, this indicator was slightly lower compared to the previous year. Loans delayed for more 90 days also slightly increased accounting for 0.63% of the total credit portfolio. The delays of clients in the repayment of loans mainly resulted from negative effects of the COVID 19 pandemic, regardless the fact that the provisional measures to mitigate negative economic consequences and preserve the stability of financial sector applied also to microcredit organisations.

In the structure of liabilities, the liabilities on loans represent the basic source of MCO funds and recorded a growth of 10.6% compared to the previous year. A significant change of the structure of liabilities on loans was evident compared to the previous year, resulting primarily from the change of maturity in MCO FBH. The final effect was a decrease of short-term liabilities on loans by even 73.1%, and their transformation into long-term liabilities on loans, the growth of which amounted to 32.6%. The total capital of the sector in the end of 2020 increased by 7.5% compared to the previous year, the income exceeding the expenses by KM 209.6 million (46.5% of the total capital), still representing the dominating source of capital.

In the end of 2020, microcredit sector achieved a positive financial result in the amount of KM 23.63 million and recorded a decline of profitability of 30.5% compared to

Table 5.2: Simplified Balance Sheet of Microcredit Organisations **million KM**

Assets			Liabilities		
	2019	2020		2019	2020
Monetary funds and placements to other banks	71.3	86.5			
Loans	807.2	889.6	Liabilities based on loans	517.0	571.8
Loan loss provisions	-7.7	-14.,6	Other liabilities	52.5	55.0
Other assets	118.5	116.5	Capital	419.9	451.2
TOTAL	**989.4**	**1,078.0**	**TOTAL**	**989.4**	**1,078.0**

Source: FBA, BARS, CBBH

2019. The total income amounted to KM 177.23 million. A slower growth of the total sector income (4.7%), compared to the previous years was under a dominating effect of the recorded income from compensations and other income, the value of which was lower by even 53.6% compared to the previous year. Interest income remained a dominating source of the sector income, so, with all the difficulties in operations of financial intermediaries in 2020, their growth reached 13.0%. A strong growth of interest income was mainly contributed by very high interest rates. The average weighted effective interest rate on the total loans in FBH in 2020 amounted to 23.98%, and in RS 23.55%. Effective interest rates on short-term loans were quite high, having increased in 2020 again in both Entities. The total expenses of microcredit sector amounted to KM 149.96 million and recorded an increase of 12.9% compared to the previous year. The growth of the total expenses was influenced by the growth of all the basic items of expenses, with the strongest impact of the increase of costs of provisions for loan and other losses in the amount of KM 7.64 million.

In 2020, additional contraction of leasing sector was evident, while slightly better financial indicators were achieved compared to the previous year. In the end of 2020, four leasing companies had operating licences. The total assets of leasing sector amounted to KM 343.8 million, having recorded a growth of 6.4% compared to the previous year. Financial leasing accounted for 80.4% of the value of contracts on leasing, while operative leasing accounted for the remaining 19.6%. The value of new contracts of financial and operative leasing in 2020 amounted to KM 164.8 million, which was lower by 16.4% compared to the previous year. In the end of 2020, the leasing sector recorded a positive financial result in the amount of KM 4.3 million. The growth of operating income by 8.7%, and a considerable decrease of costs of loss provisions by 26.1% contributed to the return of the sector into the profitable zone. High costs of loss provisions in the previous year at the sector level were generated by one leasing company which ceased its operations in 2020. The sector of leasing is generally underdeveloped, with basic activities of this sector representing a kind of substitution for standard bank loans.

In the insurance market, there were no significant changes compared to the previous year. In the end of 2020, 25 insurance companies and one reinsurance company operated in BH. During the year, one insurance company was merged with another, which shows that market was gradually consolidating. The corona crisis indirectly brought about the decline of activities in the insurance market. Due to lower banking sector lending activity, and deterioration of conditions in the labour market and growth of uncertainty in respect of the development of epidemiological situation, the upward trend of the insurance premium from previous years was stopped in 2020, while the total calculated premium amounted to KM 756.4 million, so, compared to the same period of the previous year, it decreased by 0.8%. Although a decline of the premium was recorded, due to the decline of the country' economic activity, the share of the premium in the total GDP remained at approximately the same level as in the previous year (2.23% of GDP). Out of the total calculated premium, non-life insurance accounted for 79.3%, i.e. KM 600 million.

Low share of voluntary types of insurance remained a key weakness and the limiting factor of the development of BH insurance market. The most significant share in the total insurance premium stayed with car liability insurance (more than 50.0%). Among the significant kinds of insurance in the category of non-life insurance, except for the growth of car liability insurance and property insurance, a decline of other kinds of insurance was evident. A decline of the value of premiums of policies related to loan insurance and guarantees was particularly visible, as well as health insurance and insurance against accident. The calculated premium for life insurance amounted to KM 156.4 million and recorded a decrease of 1.3% compared to the previous year. The total gross paid damages amounted to KM 309.8 million and accounted for 41.0% of the total calculated premium.

According to the CBBH data, insurance companies held a considerable part of assets in highly liquid and low risk forms of assets. In accounts with commercial banks, insurance companies held 33.0% of the total assets in different forms of deposits. Investments in securities amounted to 21.9% of the total assets, with 73.6% of investments in securities related to government securities.

In 2020, 35 investment funds, out of them 16 in FBH and 19 in RS, had operating licences. Out of the total of 35 investment funds, 23 were open investment funds, while 12 funds were closed investment funds. The total value of net assets of investment funds in the end of 2020 amounted to

KM 811.1 million, which was lower by KM 41 million or 4.8% compared to the end of the previous year.

The value of the total trading on BH stock exchanges in 2020 increased. The total trading amounted to KM 1,275.1 million, and compared to the same period of the previous year, it was higher by KM 372 million or 41.2%. Out of the total trading, KM 541.1 million, i.e. 42.3% was recorded in Sarajevo Stock Exchange (SASE), while KM 734.0 million or 57.7% was recorded in Banja Luka Stock Exchange (BLSE). In 2020, Sarajevo Stock Exchange recorded a growth of trading by 25.6% or by 110.1 million while trading in Banja Luka Stock Exchange increased by KM 261.9 million or 55.5%.

The growth of trading on BH stock exchanges in 2020 was mainly generated by stronger activities in the primary market of debt instruments. The government sector, as the main driver of activities in this market segment, increased the intensity of borrowing in the domestic capital market under the pressure of increased needs for providing financial assistance to domestic sectors in overcoming the negative consequences of the coronavirus pandemic. The total market capitalisation in BH in the end of 2020 amounted to KM 9,312 million and was almost unchanged compared to the previous year (-0.6%), however, opposite trends were evident in two stock exchanges. The decrease of market capitalisation on SASE amounted to KM 278 million (5.9%), while the increase of market capitalisation on BLSE amounted to KM 225 million (5.0%) compared to the end of 2019.

6. Financial Infrastructure

6.1. Payment systems

In 2020, the Central Bank of BH successfully fulfilled its legal obligation to maintain adequate payment systems. Payment operations were carried out smoothly through the systems of giro clearing and real time gross settlement (RTGS). The Central Registry of Credits (CRC) and Single Registry of Business Entities' Accounts (SRBEA) were maintained, while transactions through the international clearing of payments with foreign countries were carried out smoothly. During the years, payment systems have been continually upgraded with purpose of fulfilling all the necessary technological and safety standards, the biggest step having been made in 2019 when giro clearing system was adjusted with the operating procedure in the European Union (EU), thus creating the assumption for a faster integration of the CBBH payment systems into the EU developments.

During 2020, there was a slight increase in the number of transactions, and at the same time, a decline of the total value of all transactions through the giro clearing and RTGS payment systems. The total value of interbank payment transactions in 2020 went down by 14.5%, which could be a consequence of the decreased economic activity in the country due to the crisis resulting from the coronavirus pandemic. The total number of transactions went up by 0.4% compared to the year before. The first ten banks in BH by volume of transactions in 2020 participated in the total number of RTGS and giro clearing interbank transactions

Table 6.1: 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
2020	43.8	105,132	398.2	85

Source: CBBH, BHAS

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

Period	10 banks with the largest shares	
	Number of transactions	Value of transactions
Decembar 2008	1,271	1,381
Decembar 2009	1,233	1,413
Decembar 2010	1,256	1,346
Decembar 2011	1,230	1,287
Decembar 2012	1,278	1,295
Decembar 2013	1,337	1,378
Decembar 2014	1,350	1,310
Decembar 2015	1,314	1,305
Decembar 2016	1,307	1,322
Decembar 2017	1,320	1,349
Decembar 2018	1,344	1,335
Decembar 2019	1,397	1,471
Decembar 2020	1,352	1,249

Source: CBBH

with 73.33% in 2020, which is a small increase compared to 2019. On the other hand, the share of the first ten banks in the total transaction value declined from 78.94% in 2019 to 76.24% in 2020.

The decrease in the value of the total payment transactions in 2020 and slower circulation of money resulted in an increase of the number of days needed to carry out transactions in the value of the annual nominal GDP (Table 6.1). The downward trend of the number of intra-bank transactions and the upward trend in the number of interbank transactions continued in 2020. Although the number of intra-bank transactions dropped by 5.2%, and the number of interbank ones rose by 0.3% compared to the same period of the last year, intra-bank transactions remained predominant in the total number of transactions, their share being 55.0% (53.9 million transactions), while the share of interbank transactions number was 45.0% (43.7 million transactions). The value of intra-bank transactions in 2020 was KM 100.4 billion or 49.0% of the total payment transaction value, the value of interbank transactions being KM 105 billion or 51.0%.

Table 6.2 shows the values of the Herfindahl-Hirschmanovog index (HHI[19]), which illustrates the concentration of the total number and value of interbank payment transactions for 10 banks with the largest shares in both payment systems (giro clearing and RTGS). Although most interbank payment transactions take place between small number of large banks, the HHI index value indicates a moderate concentration of interbank payment transactions and the absence of systemic risks in payment systems. In 2020, there was a decrease of the HHI index both in the number and the value of transactions for the ten largest participating banks, indicating a lower risk of concentration.

In 2020, CBBH continued maintaining the CRC, which was during the year, updated by 77 institutions in real time, which provides the financial institutions which are users of this database with the data on credit history and current debt level of their existing or potential customers thus enabling them to carry out better quality risk assessments when making decisions on extending funds. The CBBH continued to maintain the Single Registry of Business Entities Accounts of BH (SRBEA), which, in the end of 2020, included 240,131 active and 97,410 blocked accounts. After the system upgrade in late 2018, SRBEA now includes all accounts of business entities performing their payment transactions in BH via accounts opened with banks and the CBBH. SRBEA is primarily useful for 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 illegal manner, e.g. for tax evasion, money laundering, etc. Also, this registry provides information to all legal entities and natural persons pursuing collection of their claims through enforcement via authorised institutions.

International clearing of payments between banks from BH and the Republic of Serbia continued in 2020, so the total of 10,622 payment orders in the total value of EUR 235.1 million were performed in the system, which shows an active use of this platform for the settlement of payment transactions.

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

6.2. Regulatory framework

For continuing harmonisation of regulatory framework, the adoption of new Deposit Insurance Law in Banks in BH was very important, which has taken effect on 17 June 2020 ("Official Gazette of BH", ref. 32/20). Compared to the previous law, three important changes stand out in the new Law: the obligatory membership in deposit insurance scheme for each bank licenced to operate by the competent Banking Agency; introduction of new authority for BH Deposit Insurance Agency to participate with the funds of the Deposit Insurance Fund in the process of bank restructuring in some cases defined by this law and laws on banks; shortening of period for payments to depositors due to the revoke of bank licence to 20 work days instead of the previous 90 days.

In 2020, new regulations have taken effect which apply to bank operations: decisions of Banking Agencies on credit risk management and determining expected credit losses, regulating the rules to manage credit risk, manner of classification of exposures into credit risk levels and determination of expected credit losses, and eligible collateral for the purposes of determination of expected credit losses and for the setting exposure limits with reference to eligible capital.

In the end of March 2020, the Banking Agencies adopted decisions on provisional measures applied by banks with purpose of mitigating negative economic consequences brought about by the coronavirus. Banks were enabled to grant facilities for customers affected directly or indirectly by negative effects of the pandemic in the form of moratorium, i.e. postponement of loan repayments. At the same time, rules for credit risk management were defined as well undertaking of prevention measures with purpose of preserving capital, including retaining profits from 2019, postponement or cancelling of dividend and bonus payments, and possibility to use capital buffers. After the expiry of six months, new decisions on provisional measures prolonged the period in which customers submit applications for facilities in loan repayments to banks, until the end of 2020. During 2021, deadlines for submitting customers' applications were prolonged until the end of the first half of the year, with the final expiry of the measures at the end of 2021. Decisions on provisional measures were also passed for microcredit organisations and leasing companies.

Besides provisional measures, with purpose of preserving operations and financial soundness of banks during the coronavirus pandemic, the Banking Agencies during 2020 adopted decisions to ease the minimum requirements for the management of foreign exchange risk and liquidity risk, and the criteria related to the minimum rate of provisions for expected credit losses for long-term exposures approved during the pandemic with purpose of stimulating economic growth and development and decrease of unemployment in the country. In 2021, the Agencies continued the process of adjusting bank regulations and supervision of banks in BH with the EU regulatory framework.

In September 2020, the Memorandum of understanding among Croatian National Bank (HNB) and the Banking Agency of the Federation of Bosnia and Herzegovina (FBA), Banking Agency of Republika Srpska (BARS) and the Central Bank of Bosnia and Herzegovina (CBBH) was signed. This memorandum is a kind of upgrade to the previous Memorandum on cooperation and exchange of information in the area of supervision of bank operations, which was achieved in 2003, representing the platform to improve and expand cooperation of the competent institutions after the Republic of Croatia joins the Exchange Rate Mechanism (ERM II).

A delay in the functioning of the Commission for Securities in FBH, dating back in 2019, was not overcome in 2020. In the beginning of July 2021, members of the Commission were appointed by the House of Representatives of the Parliament of FBH, which could be an indication that the issue could be solved soon.

Statistical 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-	Stable	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
	23 04 2021	BB	Positive	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
	13 09 2019	BBB	Positive	A-2
	24 04 2020	BBB	Stable	A-2

Table A1: Sovereign Rating Changes

Country	Date of change	Standard & Poor's rejting		
		Standard & Poor's rating	Outlook	Short-term
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
	18 09 2020	A	Negative	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
	23 10 2020	BBB	Stable	A-2
Cyprus	until 2009	A+	Negative, watch	A-1
	21 07 2010	A+	Negative	A-1
	16 11 2010	A	Negative	A-1
	30 03 2011	A-	Negative, watch	A-2
	29 07 2011	BBB	Negative, watch	A-2
	12 08 2011	BBB+	Negative, watch	A-2
	27 10 2011	BBB	Negative	A-3
	13 01 2012	BB+	Negative, watch	B
	01 08 2012	BB	Negative, watch	B
	17 10 2012	B	Negative	B
	20 12 2012	CCC+	Negative	C
	21 03 2013	CCC	Stable	C
	10 04 2013	CCC	-	C
	28 06 2013	SD	Stable	SD
	03 07 2013	CCC+	Stable	C
	29 11 2013	CCC+	Positive	B
	25 04 2014	B	Stable	B
	24 10 2014	B+	Positive	B
	27 03 2015	B+	Positive	B
	25 09 2015	BB-	Stable	B
	18 03 2017	BB+	Positive	B
	15 09 2017	BB+	Stable	B
	14 09 2018	BBB-	Stable	A-3

Source: Standard & Poor's

Table A2: Real Estate Price Index (2015= 2015)

		Sarajevo	Mostar	Zenica	Tuzla	TOTAL
2006	Q1	69	72	53		**68**
	Q2	74	71	49		**71**
	Q3	73	70	52		**70**
	Q4	80	60	55		**74**
2007	Q1	87	73	56		**83**
	Q2	98	76	67		**93**
	Q3	108	73	72		**98**
	Q4	117	77	74		**105**
2008	Q1	125	85	78	95	**112**
	Q2	133	82	84	98	**119**
	Q3	132	83	88	106	**120**
	Q4	138	87	99	107	**126**
2009	Q1	129	104	101	97	**120**
	Q2	120	101	100	100	**114**
	Q3	115	105	100	107	**112**
	Q4	111	104	93	115	**109**
2010	Q1	111	100	99	112	**108**
	Q2	111	110	101	110	**110**
	Q3	107	104	99	105	**106**
	Q4	106	106	107	104	**106**
2011	Q1	105	107	105	97	**105**
	Q2	105	103	107	89	**103**
	Q3	104	98	102	91	**102**
	Q4	105	104	102	89	**103**
2012	Q1	105	112	101	102	**106**
	Q2	104	101	109	96	**103**
	Q3	101	104	95	94	**100**
	Q4	100	101	103	96	**100**
2013	Q1	101	108	105	93	**102**
	Q2	99	109	104	90	**100**
	Q3	98	105	97	94	**99**
	Q4	97	109	106	90	**99**
2014	Q1	98	104	98	95	**99**
	Q2	96	102	97	93	**97**
	Q3	98	94	99	99	**98**
	Q4	98	96	101	92	**98**
2015	Q1	98	101	100	98	**99**
	Q2	101	99	99	101	**101**
	Q3	99	103	102	100	**100**
	Q4	102	97	99	100	**101**
2016	Q1	99	94	97	96	**98**
	Q2	100	97	104	99	**100**
	Q3	102	114	101	96	**104**
	Q4	103	113	104	98	**104**
2017	Q1	104	110	104	97	**104**
	Q2	104	96	105	97	**103**
	Q3	104	104	104	103	**104**
	Q4	107	93	105	100	**104**
2018	Q1	108	103	103	100	**106**
	Q2	109	110	102	100	**108**
	Q3	109	104	102	102	**107**
	Q4	109	106	102	104	**108**
2019	Q1	111	105	106	103	**110**
	Q2	113	110	109	109	**112**
	Q3	112	109	113	109	**112**
	Q4	115	108	107	108	**113**
2020	Q1	117	109	112	110	**115**
	Q2	117	122	125	103	**117**
	Q3	117	113	123	118	**117**
	Q4	118	106	121	117	**117**

Source: CBBH
Note: Compared to the real property prices index presented in the FS Report 2019 basis period is changed.

Table A3: Main Positions in Foreign Trade of Goods

Main groups of export products

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)	
	2019	2020	I - XII 2020 / I - XII 2019		Price effect	Export volume effect
	1	2	3	4 = 2/1	5	6
Base metals and base metal products	**2,100.1**	**1,740.0**		**-17.1**		
Out of which: Iron and steel	575.5	458.5	93.0	-20.3	-7.0	-13.3
Iron and steel products	780.1	723.4	96.0	-7.3	-4.0	-3.3
Aluminium and aluminium products	542.9	363.1	95.5	-33.1	-4.3	-29.2
Machinery, appliances, mechanical and electrical equipment	1,590.2	1,582.7		-0.5		
Machinery, appliances, mechanical equipment, boilers and parts thereof	804.3	768.5	98.1	-4.4	-1.9	-2.5
Electrical machinery, equipment and parts thereof, sound recorders or reproducers, television image and sound recorders or reproducers and parts and equipment for such products	785.9	814.1	102.0	3.6	2.0	1.6
Miscellaneous products	**1,114.8**	**1,127.4**		**1.1**		
Out 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	1,007.3	1,021.6	101.0	1.4	1.0	0.4
Mineral origin products	**1,070.0**	**870.2**		**-18.7**		
Out of which: Mineral fuels, mineral oils and products of their distillation, electric energy, bituminous substances and mineral waxes	929.2	713.8	93.2	-23.2	-6.8	-16.4
Products of chemical industry or related industries	**936.5**	**783.0**		**-16.4**		
Inorganic chemical products, organic and inorganic compounds of precious metals, rare metals, radioactive elements and isotopes	622.4	506.3	90.0	-18.7	-10.0	-8.7
Wood and wood products	**756.3**	**718.3**		**-5.0**		
Wood and wood products; charcoal	751.8	714.0	98.2	-5.0	-1.8	-3.2

Main groups of import products

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)	
	2019	2020	I - XII 2020 / I - XII 2019		Price effect	Export volume effect
Mineral origin products	**2,882.3**	**1,747.2**		**-39.4**		
Out of which: mineral fuels, mineral oils and products of their distillation, electric energy, bituminous substances and mineral waxes	2,731.8	1,638.5	90.0	-40.0	-10.0	-30.0
Machinery, appliances, mechanical and electrical equipment	**2,758.6**	**2,516.5**		**-8.8**		
Machinery, appliances, mechanical equipment, boilers and parts thereof	1,603.6	1,349.5	95.4	-15.8	-4.6	-11.2
Electrical machinery, equipment and parts thereof, sound recorders or reproducers, television image and sound recorders or reproducers and parts and equipment for such products	1,55.0	1,166.9	101.0	1.0	1.0	0.0
Base metals and base metal products	**2,152.7**	**1,997.9**		**-7.2**		
Iron and steel	621.7	554.8	96.3	-10.8	-3.7	-7.1
Out of which: Iron and steel products	510.9	491.9	98.2	-3.7	-1.8	-2.0
Aluminium and aluminium products	411.8	371.7	92.2	-9.7	-7.8	-2.0
Products of chemical industry or related industries	**1,752.5**	**1,681.8**	**98.2**	**-4.0**	**-1.8**	**-2.2**
Inorganic chemical products, organic and inorganic compounds of precious metals, rare metals, radioactive elements and isotopes	150.9	68.4	86.0	-54.6	-14.0	-40.6
Pharmaceutical products	632.9	665.9	103.0	5.2	3.0	2.2
Essential oils and resins, perfumery, cosmetic or toilet products	245.9	213.3	95.3	-13.2	-4.7	-8.5
Miscellaneous chemical industry products	169.5	190.7	105.0	12.5	5.0	7.5
Food products	**1,658.4**	**1,603.8**		**-3.3**		
Cereal, flour, starch or milk products; pastries	231.9	231.0	99.1	-0.4	-0.9	0.5
Miscellaneous food products	285.3	295.9	102.2	3.7	2.2	1.5
Beverages, alcohols and vinegar	357.0	308.1	97.0	-13.7	-3.0	-10.7
Food industry waste and scraps; prepared animal food	197.2	193.1	98.3	-2.1	-1.7	-0.4

Source: BHAS, CBBH

Table A4: Financial Soundness Indicators

		Capital			Asset quality			Profitability				Liquidity				Foreign exchange risk		
Period	Number of banks	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
2020	23	18.08	19.18	12.52	4.03	7.83	6.12	0.76	6.01	56.03	83.00	29.11	42.75	120.71	78.51	53.95	48.12	4.43

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	Merged to BOR banka d.d. Privredna banka Sarajevo d.d. Sarajevo	Q4 2016
	Privredna banka Sarajevo d.d. Sarajevo	Privredna banka Sarajevo d.d. Sarajevo merged with BOR banka d.d. Sarajevo	Q4 2016
4	UniCredit Bank d.d. Mostar		
	UniCredit Zagrebačka banka BiH d.d. Mostar	UniCredit Zagrebačka banka BiH changed its name into UniCredit Bank d.d. Mostar	Q1 2008
	Zagrebačka banka BH d.d. Mostar	Merging with Univerzal banka d.d. Sarajevo into UniCredit Zagrebačka banka BiH	Q3 2004
	Univerzal banka d.d. Sarajevo	Merger with Zagrebačka banka BH d.d. Mostar into UniCredit Zagrebačka banka BiH	Q3 2004
	HVB Central Profit banka d.d. Sarajevo	HVB Central profit banka Sarajevo merged to UniCredit Zagrebačka banka BiH	Q1 2008
	HVB banka d.d. Sarajevo	Merger with Central Profit banka into HVB Central Profit banka d.d. Sarajevo	Q4 2004
	Central Profit banka d.d. Sarajevo	Merger with HVB banka d.d. Sarajevo into HVB Central Profit banka d.d. Sarajevo	Q4 2004
	Travnička banka d.d. Travnik	Merged to Central Profit banka d.d. Sarajevo	Q4 2002
5	UniCredit Bank a.d. Banja Luka	Nova Banjalučka banka a.d. Banja Luka changed its name	Q2 2008
	Nova Banjalučka banka a.d. Banja Luka	Merged to HVB group, continued its operations as a separate legal 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.	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		Q1 2003
	Raiffeisen Bank HPB d.d. Mostar	Merged to Raiffeisen banka d.d. Sarajevo	
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 Luka	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 changed its seat	Q3 2007
	Agroprom banka a.d. Banja Luka	Merged to Nova banka a.d. Bijeljina	Q1 2003
21	Naša banka a.d. Bijeljina		
	Pavlović International Banka a.d. Slobomir Bijeljina	Changed its name into Naša banka a.d. Bijeljina	Q4 2019
	Privredna banka a.d. Doboj	Merged to Pavlović International banka	Q2 2003
	Privredna banka a.d. Brčko	Merged to Pavlović International banka	Q4 2002
	Semberska banka a.d. Bijeljina	Merged to Pavlović International banka	Q4 2001
22	Komercijalna banka a.d. Banja Luka		
23	MF banka a.d. Banja Luka		
	IEFK banka a.d. Banja Luka	Changed its name into 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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