BOSNA I HERCEGOVINA
MINISTARSTVO FINANCIJA/
FINANSIJA I TREZORA

БОСНА И ХЕРЦЕГОВИНА
МИНИСТАРСТВО ФИНАНСИЈА
И ТРЕЗОРА

BOSNIA AND HERZEGOVINA
MINISTRY OF FINANCE
AND TREASURY

Bosnia and Herzegovina Public Debt Sustainability Analysis 2021-2024

Sarajevo, May 2022

Content:

Introduction

Bosnia and Herzegovina Public Debt Sustainability Analysis (BIH DSA) is based on the methodology developed by the International Monetary Fund (IMF) for countries with market access (MAC DSA Methodology)[1].

The aim of BIH DSA is to assess the current state of the BiH indebtedness and medium term public indebtedness trends, as well as to define the basic risks which might affect the public debt sustainability.

It is important to note that this approach does not explicitly define the threshold after which public debt becomes unsustainable, it rather provides a series of indicators, information and implications of defined stress tests on the basis of which it is assessed whether the current situation and estimated public debt trends are sustainable and under which conditions.

Public Debt Sustainability Analysis facilitates the efficient Public Finance Management and macroeconomic stability through representation of effects and consequences of public indebtedness, i.e. the impact of different indebtedness portfolio scenarios on certain macroeconomic indicators.

[1] http://www.imf.org/external/pubs/ft/dsa/mac.htm

Methodology clarifications

The present analysis implies assessment of the key macro-economic variables and public debt trends, as well as testing the vulnerability of projected public debt trends against different macroeconomic shocks in accordance with the MAC DSA methodology.

In accordance with the MAC DSA, the analysis is based on a formal and standardised tool (MAC DSA Template). Namely, MAC DSA Template was developed in order to facilitate the preparation for the public debt analysis. It is based on the risks and thus implies that the same level of analysis is not required for all countries. Likewise, there is a distinction between two types of countries: developed countries (NE) and developing countries (TN)[2].

For Debt Sustainability Analysis (DSA) and debt risk, it is necessary to observe the debt in terms of certain indicators, whereat debt burden indicators and debt profile indicators are used in the analysis. Considering that MAC DSA methodology distinguishes two types of countries, the indicators used have different threshold values for TN and NE countries. Having in mind that BiH is classified as a developing country, DSA BiH uses debt burden and debt profile indicators for TN countries (Table 1).

Table 1 BiH 2020 debt burden and debt profile indicators

	Indicators	BiH (2020)
Debt burden indicators		
Public debt (% of GDP)	60	31,4
Gross public sector financing needs (% of GDP)[3]	15	5,1
Debt profile indicators		
Bond yield spreads (basic points) [4]	800	496,8
Foreign financing needs (% of GDP)[5]	20	20,9
Public debt held by non-residents (% share in total debt)	60	71,3
Public debt in foreign currency (% share in total debt)	80	71,3
Changes in short term public debt (% of total debt)[6]	1,5	1,5

The stated indicators (measures, reference marks) for public debt-GDP ratio and gross public debt financing needs-GDP ratio include two important concepts related to debt difficulties, i.e. solvency and liquidity. In terms of debt profile indicators, the experience shows that debt difficulties events were typically preceded by the increase in the share of the short term debt and debt denominated in foreign currency in total debt and increase in foreign financing needs, which in turn increase the pressure on the existing foreign currency reserves, while the high share of debt held by non-residents increases the vulnerability in terms of recovery and interest rate risks, which is why they are observed.

[2] Countries are designated as NE or TN on the basis of their classification in the World Economic Outlook. https://www.imf.org/en/Publications/WEO/weo-database/2022/April/select-country-group
[3] Including primary balance, public debt interest and principal payments and other factors such as recapitalization of banks, privatisation proceeds, deposit withdrawal, changes in matured outstanding obligations and debt acquaintance.
[4] On December 31, 2020, Republika Srpska issued a 5 year bond at the international financial market (Vienna Stock Exchange).
[5] Defined as a current account balance plus repayment of total short term foreign debt (private and public) under remaining maturity.
[6] Change in short term public debt (under original maturity) as a percentage of total public debt in the end of the current year, compared to the end of the previous year.

Assumptions for the Debt Sustainability Assessment of BiH (DSA BIH)

For preparation of the Debt Sustainability Analysis (DSA), the most important role is assumed by the quality of input data, both historical input and macro-fiscal projections (baseline scenario), considering that the unreal macro-framework may produce a “distorted image” while defining the results in the analysis.

As key input data for the preparation of the DSA BiH, historical data were used from the Central Bank of BiH (CB BiH), Agency for Statistics of BiH, Ministry of Finance and Treasury of BiH (MFT BiH) and Entity Ministries of Finance and Finance Directorate of Brcko District (FD BD), as well as projections based on the macro-economic indicators projections of the Directorate for Economic Planning of BiH (DEP BiH) for the period 2020-2025 and from March 2022, central government fiscal projections in the Global Framework of Fiscal Balance and Policies in BiH 2022-2024 (GFFBP BiH), projections of foreign debt interest rates trends in the Medium Term Debt Management Strategy of BiH and MFT BiH data on BiH domestic and foreign debt.

DSA BiH includes public debt, i.e. domestic debt of Entities and Brcko District BiH and foreign debt of Bosnia and Herzegovina which, in turn, includes foreign state debt[7], foreign debt of Entities’ and Brcko District BiH[8] and ’foreign debt’ of local self-government units[9].

The projected BiH foreign public debt state for the period 2021-2024 is based on the amount of withdrawn credit funds plus estimated withdrawals under projects in implementation and projects in the procedure of conclusion[10] and minus the estimated amount of principal repayment.

DSA BiH assumes the following:

- BiH credit rating will not be lowered in the medium term,
- There will be no significant increases of referent interest rates and foreign exchange rates,
- CB BiH will maintain the monetary stability in line with the Currency Board Arrangement, pursuant to provisions of the Law on the Central Bank of Bosnia and Herzegovina,
- There will be no significant delays in implementation of the projects financed or planned to be finance from external sources, all recorded in MFT BiH.

Accordingly, DSA BiH is based on the assumptions shown in Table 2, representing the baseline scenario in the analysis.

[7] Foreign state debt is the state debt incurred pursuant to an international agreement with the Ministry of Finance and Treasury of BiH as a borrower on behalf of Bosnia and Herzegovina.
[8] Foreign debt of Entities and BD BiH is debt of Entities and BD BiH incurred pursuant to an international agreement with an Entity Ministry of Finance as a borrower on behalf of the Entity/BD BiH Finance Directorate as a borrower on behalf of BD BiH.
[9]Foreign debt of local self-government units is debt incurred pursuant to an international agreement concluded directly between a local self-government unit and a creditor which is serviced directly by the local self-government unit.
[10] Projects in the procedure of conclusion are projects for which there is an initiative to negotiate, projects for which negotiations are ongoing with the creditors, projects in the procedure of approval by creditors and projects which are concluded and are in the ratification procedure, all recorded in MFT BiH. This includes projects in the area of road, railway, water and communal infrastructure, energy, health care, agriculture, banking, education, etc.

Main risks related to the 2021-2024 baseline scenario estimates are as follows:

- Actualisation of DEP BiH assumptions related to the real GDP growth from projections of macro-economic indicators for the period 2021-2024 and fiscal projections from the Global Framework of Fiscal Balance and Policies in BiH (GFFBP BiH) for the period 2022-2024, which defines the financing needs and directly affects the decrease/increase of the debt level,
- Actualisation of assumptions related to floating interest rates values and foreign exchange values,
- Actualisation of assumptions on the dynamics of withdrawal of funds under foreign credits under implementation and credits in the procedure of conclusion, and
- downgrading of BiH credit rating in the medium term.

Applied scenarios and stress tests

The baseline scenario represents the medium term macro-economic and fiscal projection, the actualisation of which depends on numerous risks. Shock implications and scenarios are observed in order to estimate their influence.

In this regard, in order to analyse vulnerability of the baseline scenario to defined shocks and changes and determine the main risks related to sustainability of debt, DSA BiH uses two alternative scenarios and six stress tests.

- Alternative scenarios applied are two standardised alternative scenarios, i.e. a historical scenario and a constant primary balance scenario, the results of which are shown in Table 3. Stated scenarios are described below:

  - **Historical scenario** – real GDP growth, primary balance and real interest rate are set on historical averages throughout the projection period, while other variables are the same as in the baseline scenario.
  - **Constant primary balance scenario** - primary balance-GDP ratio throughout the projection period is set at the value of the first year projection, while other variables are the same as in the baseline scenario.

- Stress tests used in DSA BiH relate to decrease of the real GDP growth, increase of the primary deficit relative to GDP, interest rate growth, depreciation of domestic currency, combination of stated shocks and to shocks of potential obligations of the financial sector (Table 4). Detailed clarifications of the stated stress tests are shown below:

  - **Primary balance** - primary balance-GDP ratio is equivalent to 50% of the planned cumulative adjustment, i.e. divergence of the primary balance in comparison with the historical average. Interaction thus created is such that it will lead to significant increase of the interest rate by 25 basis points per increase in the primary deficit by 1% of the GDP.

- **Real GDP growth** - real GDP growth is decreased by one standard deviation over two consecutive years of projection (historical average minus one standard deviation). Real growth decrease results in lower inflation (0.25 percentage point per GDP increase decrease by 1 percentage point). Revenues-GDP ratio remains the same as in the baseline scenario, however the ratio of primary expenditures and GDP increases since the level of expenditure is the same as in the baseline scenario which results in primary balance decrease. Primary balance decrease results in interest rate increase by 25 basis points.

- **Interest rate -** nominal interest rate increases over the projected period, excluding the first year of projection, by the amount of the difference between maximal real interest rate over the previous ten years and the average realistic interest rate over the projection period.

- **Exchange rate** - depreciation of domestic currency of 30 per cent in the projected period, excluding the first year of projection and the effects of the exchange rate on inflation, with given elasticity of 0,25 per cent in the second year of the projection.

- **Combined macro-fiscal shock** - represents aggregation of individual shocks, whereat avoidance of double counting of individual shocks affecting more variables is taken into consideration. Combined shock includes the biggest impact of individual shocks on all appropriate variables (real GDP growth, inflation, primary balance, exchange rate and interest rate).

- **Shocks of potential obligations of the financial sector** - one-time increase of primary expenditures in the amount of 10% of the banking sector assets in the second year of the projection results in real GDP shock growth, i.e. real growth decreases by one standard deviation over two consecutive years. Revenues-GDP ratio remains the same as in the baseline scenario. Accordingly, the primary balance decreases which results in a higher interest rate, while the decrease of the real growth results in a lower inflation.

MAC DSA Template, for each stated scenario and stress tests, also shows the flows which result in debt creation. Based on the results achieved from the stated scenarios and stress tests, assessment of public debt sustainability can be made over a particular time period.

Results of the Debt Sustainability Assessment of BiH (DSA BIH)

DSA results enable determination of highest risks that can affect to debt sustainability (Table 5) and make qualitative estimates of debt sustainability, primarily depending on the quality of historical data and macro financial estimates.

- The DSA BiH results indicate that BiH is the country with public debt sustainable over the medium term based on the baseline scenario for the period 2021-2024, with 3,0% to 5,4 % real growth, 0,6 to 3,2% inflation, -2,1 to 1,7% GDP primary balance and 2,0 to 2,3% effective interest rate.

  In addition, the analysis showed that basic risks that may affect debt sustainability arise from the debt profile, i.e. that the basic risks are represented by public debt held by non-residents, foreign financing needs, changes in short-term public debt, debt in foreign currencies as well as market perception. Namely, the indicator of the debt profile related to the public debt held by non-residents exceeds the indicative parameter and represents a significant risk to debt sustainability in the medium-term considering that 71.3% of public debt is held by non-residents, which is above the indicative parameter of 60%. Also, the need for external financing represents a high risk considering that they amount to 20,9% of GDP and exceed the indicative parameter of 20%. The level of this risk was mostly affected by the external short-term private debt.

  Indicators of changes in the short-term public debt as a percentage of total debt, public debt in foreign currencies as a percentage of total debt and bond yield spreads do not exceed indicators, but pose certain risks to debt sustainability. Namely, indicator of changes in the short-term public debt of 1,5% of total public debt poses a high risk that could potentially affect public debt sustainability (the assumption is that the risk is high above 1%). Also, the share of public debt in foreign currency of 71.3% in the total public debt represents a high risk that can affect the sustainability of the public debt (the assumption is that the risk is moderate if it ranges between 20 and 60%, and a high risk is above 60%). However, considering the Currency Board Arrangement enforced by the Central Bank of BiH, i.e. correlation of BAM with EUR and high share of debt in EUR, this risk is deemed as moderate. The market perception risk is moderate at 496.8 basis points for the bond spread[11] considering that the moderate risk ranges between 200 and high risk above 600 basis points.[12]

- Debt burden indicators (public debt/GDP and public sector financing needs/GDP), based on the baseline scenario and stress tests are within the defined indicators (measures, references).

[11] Bonds spreads are defined as a spread above German bonds with similar maturity. The term “bonds spread” relates to a difference between interest rates of two bonds, i.e. deduction of yields of one bond from the other. Bonds spread reflects relative risks of bonds comparison. The wider the spread, the higher the risk.

[12]Basis points (BPS) relate to a common unit of measurement for interest rates and other percentages in finance. Relation between percentage changes and basis points may be summarised as follows: 1% change=100 basis points or 0.01% =1 basis point.

- Public debt/GDP indicator in 2020 was 34,4% and it is not high according to the international standards. Its increase compared to previous years was affected by the global health crisis caused by the Covid-19 pandemic in Bosnia and Herzegovina, which also caused a downturn in economic activity. In this regard, support for the economic stabilization and the program of reforms, macro-financial assistance and the continuation of implementation of infrastructure projects will be necessary in the forthcoming period. All macro-fiscal projections from the stated used sources as well as the current variations in the public debt, indicate to the growth of GDP and revenues and to the increase of the public debt. In accordance with the baseline scenario assessment, the stated indicator tends to decrease from 34,4% in 2020 to 34,2% in 2021, 34,3% in 2022, 33,6% in 2023 and 32,7% in 2024. Such trend is primarily the result of higher GDP growth than the increase in the state of the public debt in the mentioned period. Taking into consideration the real GDP growth variation coefficient, there is a certain risk to actualisation of this indicator, with respect to the deterioration of the projected public debt/GDP.

- The BPF/GDP indicator, in accordance with the baseline scenario, increased from 5,1 % in 2020 to 6,0% in 2021, and decreased to 5,3% in 2022, 5,1% u 2023 and 3,3% in 2024. In comparison to 2020, BPF will increase in 2021, primarily as the result of the projected primary deficit of 1,7% of GDP. However, the increase in economic activity due to the weakening of the Covid pandemic influence also causes gradual recovery in the coming period, as well as an expected reduction of the deficit to 0,4% in 2022 and the achievement of a surplus of 1,1% in 2023 and 2,1% in 2024.

- Public debt service in comparison with revenues, in accordance with the baseline scenario is increased from 9,9% in 2020, to 10,4% in 2021, 11,8% in 2022, 15,0% in 2023 and 13,1% in 2024, primarily due to the increased service of the current foreign debt. Assessment of reality of the projected primary balance trajectory through its comparison to the primary balance which the country maintained in the past, shows a significant risk in its actualisation. In this regard, caution is required with the public debt repayment profile due to possible variations in actualisation of revenues and expenditures projections. Taking into account the aforementioned, we consider that when contracting future borrowings, the borrowings should be preferred with principals maturing after 2024.

Table 2 BIH Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

(in percent of GDP unless otherwise indicated)

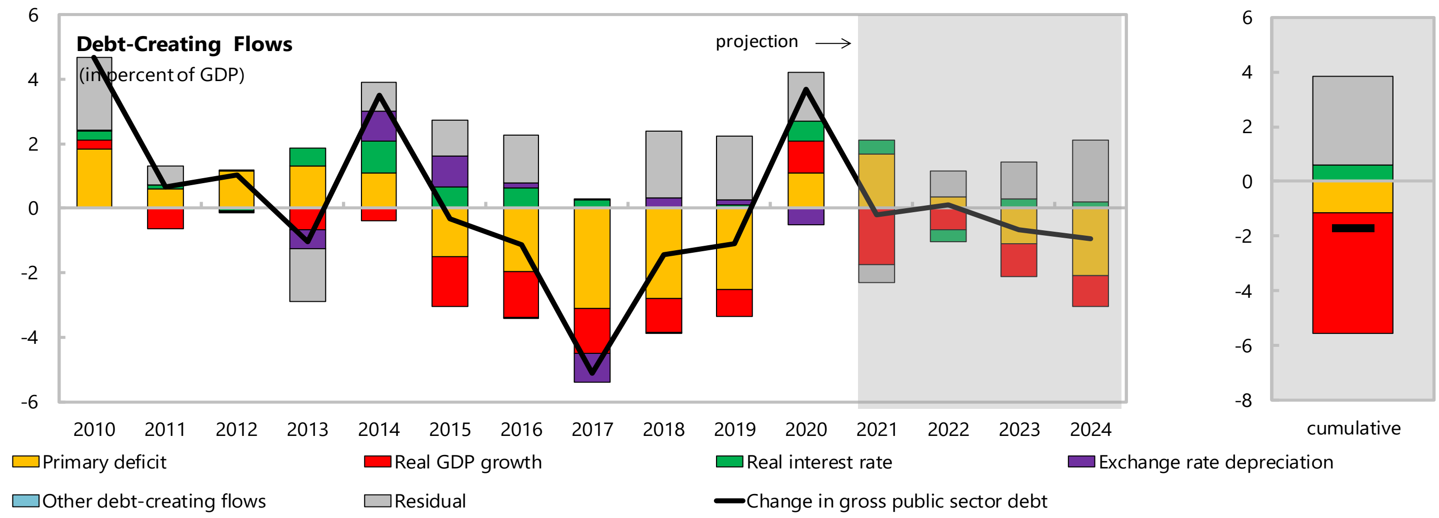
Debt, Economic and Market Indicators [1/]

	Actual			Projections			
	2010-2018 [2/]	2019	2020	2021	2022	2023	2024
Nominal GDP (in million BAM)	29.962,70	36.527,1	35.452,2	37.578,0	39.590,0	41.344,0	43.303,0
Nominal gross public debt	36,5	30,7	34,4	34,2	34,3	33,6	32,7
Public gross financing needs	3,9	1,6	5,1	6,0	5,3	5,1	3,3
Public debt (in percent of potential GDP)	36,4	31,6	33,3	33,8	34,3	33,6	32,7
Real GDP growth (in percent)	2,1	2,8	-3,2	5,4	2,1	3,1	3,0
Inflation (GDP deflator, in percent)	0,9	1,8	0,3	0,6	3,2	1,3	1,7
Nominal GDP growth (in percent)	3,0	4,6	-2,9	6,0	5,4	4,4	4,7
Effective interest rate (in percent) [4/]	2,0	2,2	2,1	2,0	2,1	2,2	2,3

As of septembar 22, 2021		
Sovereign Spreads		
Bond Spread (bp) 3/		444
5Y CDS (bp)		n.a.
Ratings	Foreign	Local
Moody's	B3	B3
S&Ps	B	B
Fitch	n.a.	n.a.

Contribution to Changes in Public Debt

	Actual			Projections					
	2010-2018	2019	2020	2021	2022	2023	2024	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	0,1	-1,1	3,7	-0,2	0,1	-0,7	-1,0	-1,7	-0,8
Identified debt-creating flows	-0,7	-3,1	2,2	0,4	-0,7	-1,8	-2,9	-5,0	
Primary deficit	-0,4	-2,5	1,1	1,7	0,4	-1,1	-2,1	-1,2	
Primary (noninterest) revenue and grants	40,8	41,1	40,8	42,1	41,8	41,5	41,2	166,6	
Primary (noninterest) expenditure	40,4	38,6	41,9	43,7	42,2	40,4	39,1	165,4	
Automatic debt dynamics [5/]	-0,3	-0,6	1,1	-1,3	-1,0	-0,7	-0,8	-3,8	
Interest rate/growth differential [6/]	-0,4	-0,7	1,6	-1,3	-1,0	-0,7	-0,8	-3,8	
Of which: real interest rate	0,4	0,1	0,6	0,4	-0,4	0,3	0,2	0,6	
Of which: real GDP growth	-0,8	-0,8	1,0	-1,8	-0,7	-1,0	-1,0	-4,4	
Exchange rate depreciation [7/]	0,1	0,1	-0,5	...	...	...	...	...	
Other identified debt-creating flows	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Please specify (1) (e.g., privatization receipt	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Contingent liabilities	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Please specify (2) (e.g., other debt flows) (+	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Residual, including asset changes [8/]	0,8	2,0	1,5	-0,6	0,8	1,1	1,9	3,3	



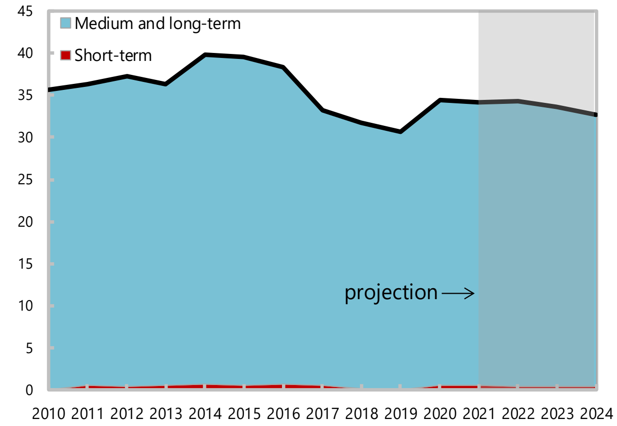
1/ Public sector is defined as general government.
2/ Based on available data.
3/ Long-term bond spread over German bonds (bp).
4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.
5/ Derived as [r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ) times previous period debt ratio, with r = effective nominal interest rate; π = growth rate of GDP deflator;
g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).
6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.
7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).
8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Table 3 BIH Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

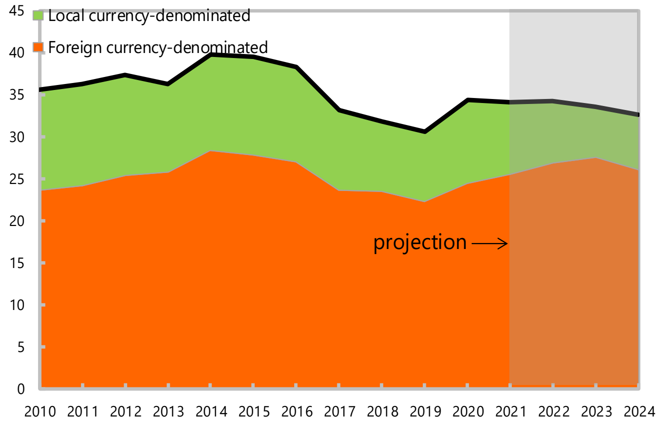
By Maturity

(in percent of GDP)



By Currency

(in percent of GDP)

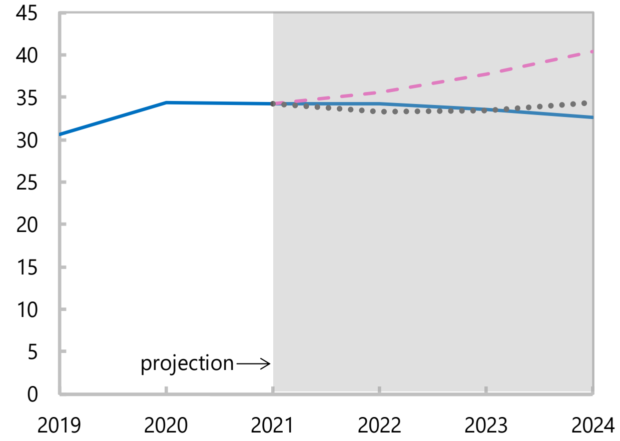


Alternative Scenarios

Baseline Historical Constant Primary Balance

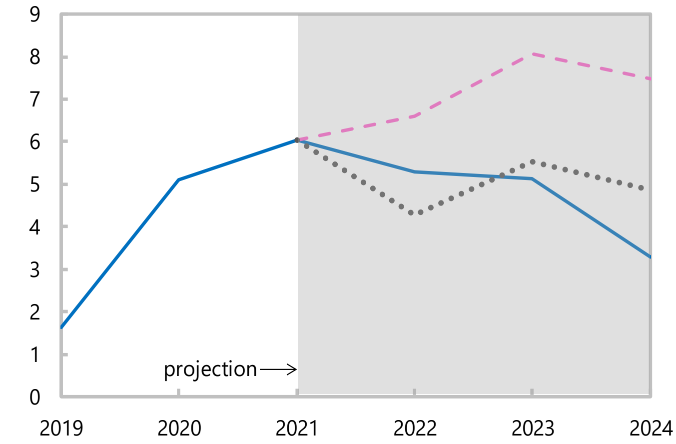
Gross Nominal Public Debt [1/]

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

(in percent)

Baseline Scenario	2021	2022	2023	2024
Real GDP growth	5,4	2,1	3,1	3,0
Inflation	0,6	3,2	1,3	1,7
Primary Balance	-1,7	-0,4	1,1	2,1
Effective interest rate	2,0	2,1	2,2	2,3
Constant Primary Balance Scenario				
Real GDP growth	5,4	2,1	3,1	3,0
Inflation	0,6	3,2	1,3	1,7
Primary Balance	-1,7	-1,7	-1,7	-1,7
Effective interest rate	2,0	2,1	2,2	2,4

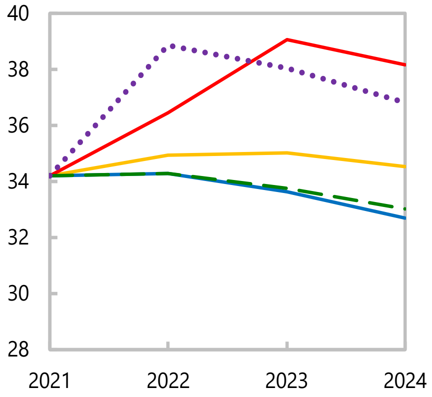
Historical Scenario	2021	2022	2023	2024
Real GDP growth	5,4	1,9	1,9	1,9
Inflation	0,6	3,2	1,3	1,7
Primary Balance	-1,7	0,7	0,7	0,7
Effective interest rate	2,0	2,1	2,3	2,4

Table 4. BIH Public DSA - Stress Tests

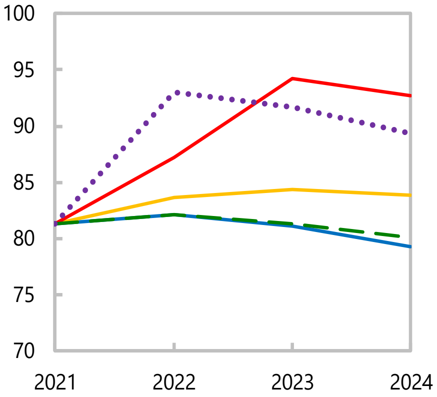
Macro-Fiscal Stress Tests

Baseline
Real GDP Growth Shock
Primary Balance Shock
Real Exchange Rate Shock
Real Interest Rate Shock

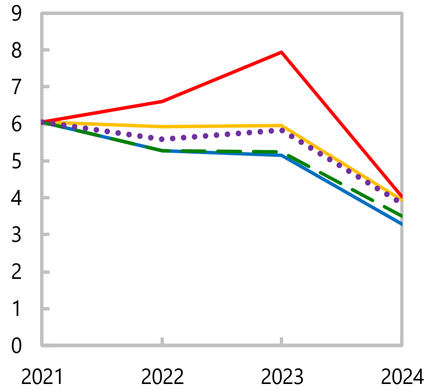
Gross Nominal Public Debt
(in percent of GDP)



Gross Nominal Public Debt
(in percent of Revenue)



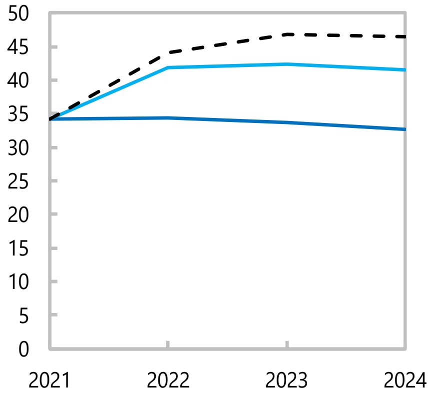
Public Gross Financing Needs
(in percent of GDP)



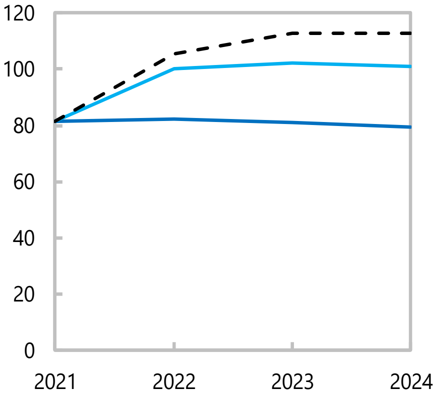
Additional Stress Tests

Baseline
Combined Macro-Fiscal Shock
Contingent Liability Shock

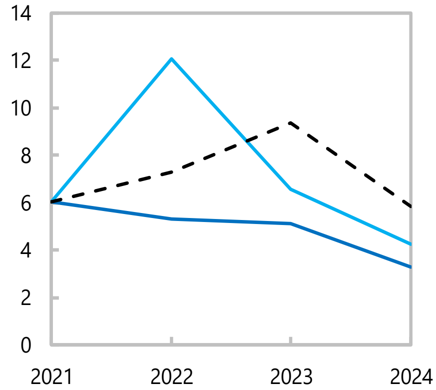
Gross Nominal Public Debt
(in percent of GDP)



Gross Nominal Public Debt
(in percent of Revenue)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions
(in percent)

Primary Balance Shock	2021	2022	2023	2024
Real GDP growth	5,4	2,1	3,1	3,0
Inflation	0,6	3,2	1,3	1,7
Primary balance	-1,7	-1,0	0,4	1,6
Effective interest rate	2,0	2,1	2,3	2,4
Real Interest Rate Shock				
Real GDP growth	5,4	2,1	3,1	3,0
Inflation	0,6	3,2	1,3	1,7
Primary balance	-1,7	-0,4	1,1	2,1
Effective interest rate	2,0	2,1	2,6	3,0
Combined Shock				
Real GDP growth	5,4	-0,1	0,9	3,0
Inflation	0,6	2,6	0,7	1,7
Primary balance	-1,7	-1,5	-1,2	1,6
Effective interest rate	2,0	2,6	2,6	3,0

Real GDP Growth Shock	2021	2022	2023	2024
Real GDP growth	5,4	-0,1	0,9	3,0
Inflation	0,6	2,6	0,7	1,7
Primary balance	-1,7	-1,5	-1,2	2,1
Effective interest rate	2,0	2,1	2,3	2,5
Real Exchange Rate Shock				
Real GDP growth	5,4	2,1	3,1	3,0
Inflation	0,6	10,7	1,3	1,7
Primary balance	-1,7	-0,4	1,1	2,1
Effective interest rate	2,0	2,6	2,2	2,3
Contingent Liability Shock				
Real GDP growth	5,4	-0,1	0,9	3,0
Inflation	0,6	2,6	0,7	1,7
Primary balance	-1,7	-6,9	1,1	2,1
Effective interest rate	2,0	2,5	2,7	2,8

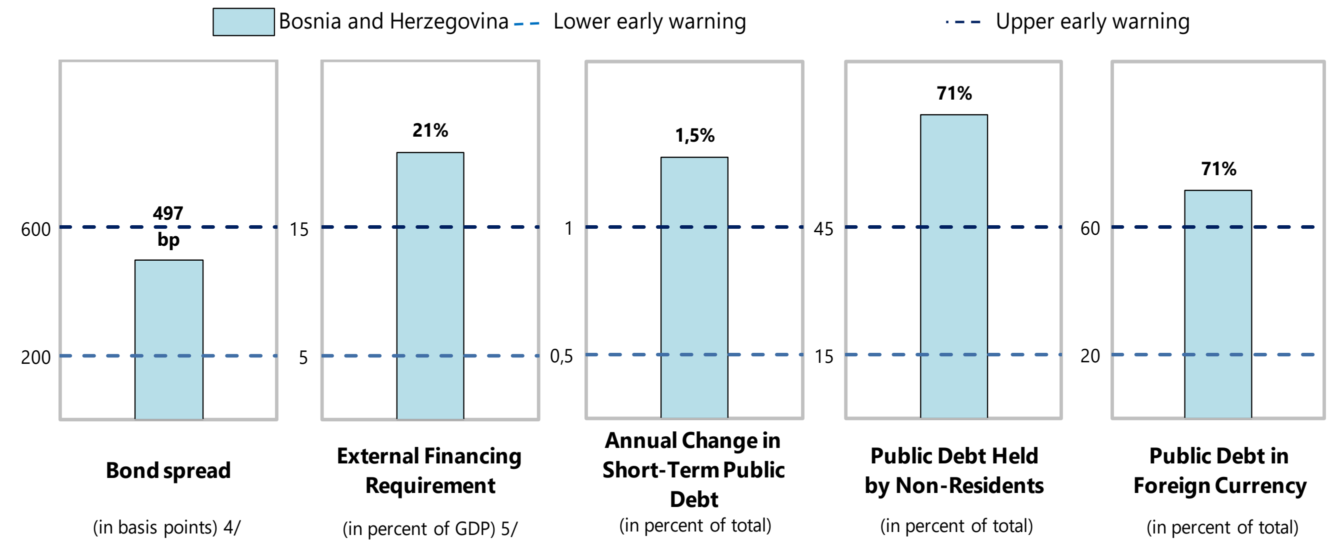
Table 5. BIH Public DSA Risk Assessment

Heat Map

Debt level [1/]	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs [2/]	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile [3/]	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2020)



1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0,5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ Long-term bond spread over German bonds (bp), an average over the last 3 months, 24-jun-21 through 22-sep-21.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.