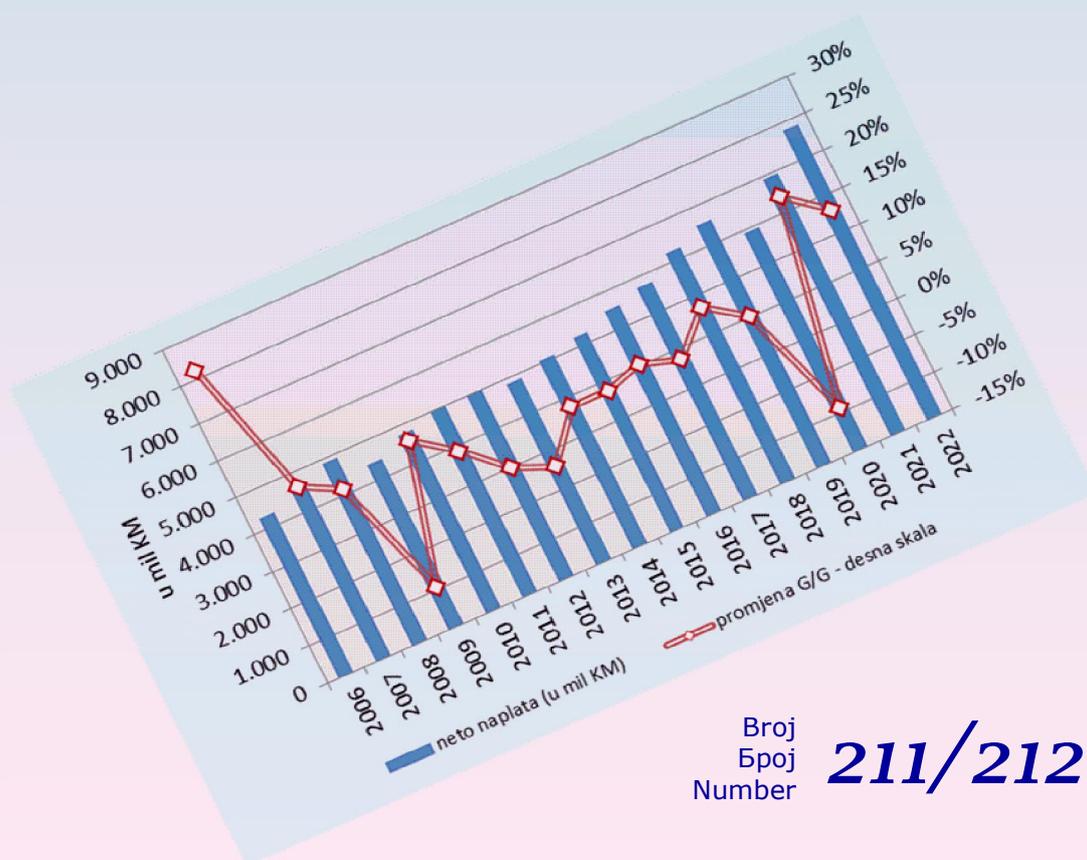




Macroeconomic Unit of the Governing Board of the Indirect Taxation Authority

# ОМА Билтен

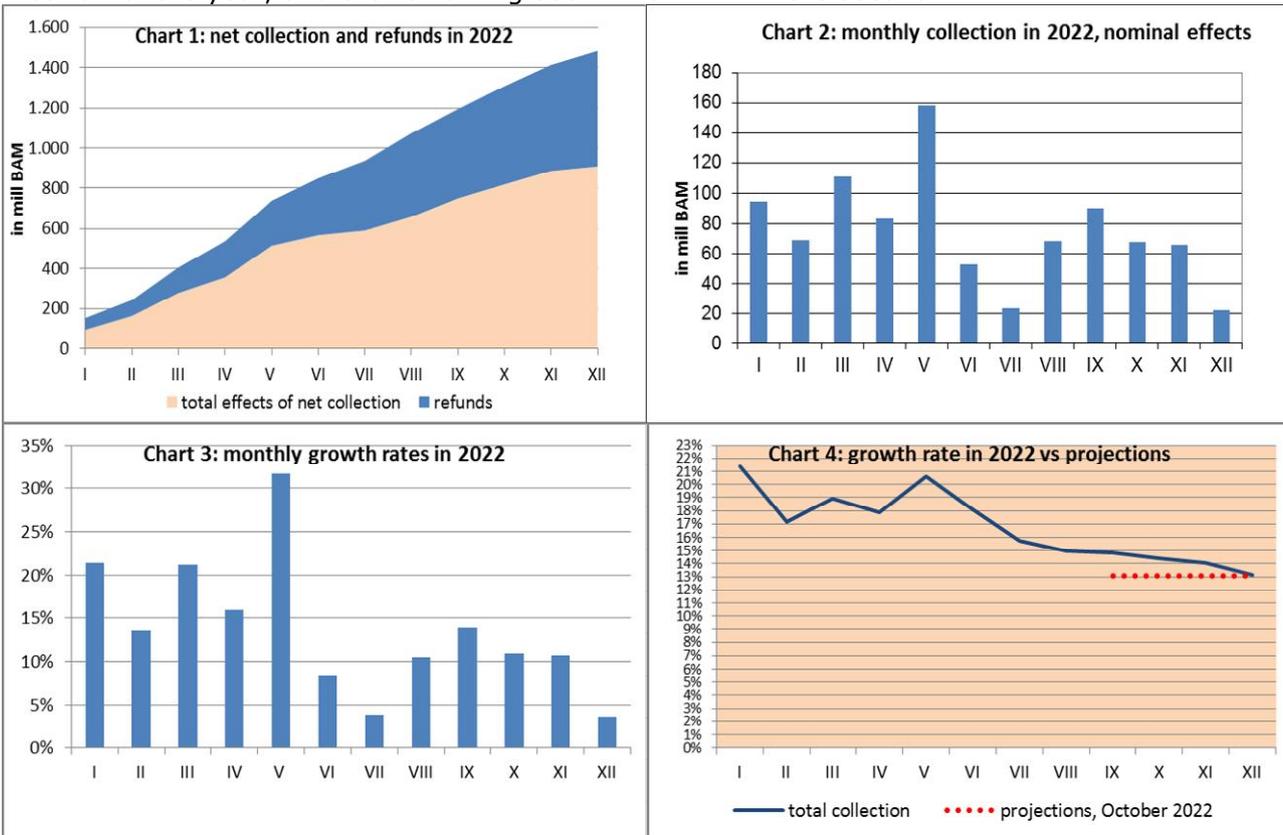


Broj  
Број  
Number

211/212

**With this issue**

According to the preliminary cash flow report, the gross collection of indirect taxes at the ITA Single Account in 2022 was higher by 1.48 billion BAM than in 2021. At the same time, refund payments were higher by as much as 573 million BAM (Graph 1). Finally, the net collection of indirect taxes in 2022 amounted to 7.827 billion BAM, which is higher by 907.5 million BAM or by 13.1% compared to 2021. Presentations of monthly absolute increases in net collection (Chart 2) and monthly growth rates (Chart 3) indicate divergent trends in the first five months compared to the rest of 2022, as a consequence of the low statistical base for comparisons in the first half of 2021, when the coronavirus restrictions were in force. Due to the statistical base effect, as much as 63% of the absolute increase in net collection in 2022 (or 569 million BAM) was realized in the first half of the year, and the remaining 339 million BAM in the second.



According to the MAU's revised projections from October 2022 (see [http://www.oma.uino.gov.ba/bilteni/Oma\\_Bilten\\_eng\\_209\\_210.pdf](http://www.oma.uino.gov.ba/bilteni/Oma_Bilten_eng_209_210.pdf)), a total net collection of 7.828 billion BAM and a growth rate of 13.1% was projected for 2022. Observation of the amount of realized net collection in 2022 showed that the MAU has been 100 percent accurate in its revised projections (Chart 4).

Dinka Antić, PhD  
Head of Unit

Table of contents:	
The specifics of the tax structure of B&H in the light of introduction of differentiated VAT rates	2
Indirect taxes in % of GDP: changes in 2021 and comparison with EU member states	9
Analysis of the allocation of revenues from indirect taxes for the 2022 – movement and structure	22

Technical design: Sulejman Hasanović, IT expert  
Reader/translator: Darija Komlenović, professor

## The specifics of the tax structure of B&H in the light of introduction of differentiated VAT rates

(Prepared by: Dinka Antić, PhD)

*Compared to other countries, the fiscal system of Bosnia and Herzegovina is characterized by a number of specificities and paradoxes. First of all, it is about the specific constitutional arrangement of Bosnia and Herzegovina with a very high degree of fiscal decentralization on the one hand, and a high degree of centralization of taxes from which all levels of government are being financed, with a high degree of interdependence between the central and entity governments in terms of policy, administration and distribution, on the other hand. The aforementioned specificities were also reflected in the VAT system, which differs to a large extent from the standard VAT systems of contemporary countries. The specifics are reflected in: (i) the unusual institutional structure of VAT administration, which implies the establishment of a tax administration for indirect taxes, which combines customs and tax functions; (ii) a unique concept of VAT policy management, and (iii) a unique concept of distribution of indirect taxes, including VAT revenue, which is based on the final consumption shown on VAT returns. A comprehensive analysis of the implications of initiatives for the introduction of differentiated VAT rates should also include an overview of the impact of the mentioned specificities of the VAT system and the limitations of the VAT policy that they impose. Finally, unlike most countries, the dominance of VAT revenue in the tax structure of B&H is of such proportions that the financing of the budget of all levels of government in B&H depends on the collection of VAT. Therefore, any initiative that could lead to loss of revenue and tax evasion should be considered in the light of the impact on the tax structure of B&H.*

### FACTORS IN THE EVOLUTION OF TAX STRUCTURES

Tax systems in countries around the world differ to such an extent that it is impossible to find two countries with identical tax systems, not only in terms of tax forms or tax rates, but also in terms of all other elements of taxation (tax base, deductions, exemptions and reliefs). There are many factors influencing the evolution and structure of tax systems. **The historical development of taxes and traditions** in the most important countries of the world determined the tax structure of the countries that have been subordinated to them.<sup>1</sup> Historically speaking, **political factors** have largely influenced the formation of tax systems into the structures such as we find them today in most countries.<sup>2</sup> There is a well-known example of socialist countries which, due to nationalization of the economy and means of production, focused their taxation on taxation of consumption with a wide scale of differentiated taxes. The internal country arrangement, in the sense of a unitary or federal structure, significantly affects the structure of tax revenues. The tax system is more complex in complex country structures, since each level of government can be assigned a certain degree of fiscal autonomy. Fiscal decentralization processes have led to the strengthening of fiscal competences of lower levels in the sphere of expenditures, but not in the sphere of taxes.<sup>3</sup> The reason for this disparity lies in the characteristic of most of the main tax forms (VAT, excise taxes, profit tax) that they show greater generosity if they are introduced and collected centrally. The transition of the majority of countries from sales tax to VAT has largely influenced the centralization of jurisdiction for taxes to become a global trend. The structure of tax

---

<sup>1</sup> For example the French, British, Spanish tax system, which was found at the moment of liberation from colonialism, has been retained in these countries until today (e.g. taxation according to the source criterion in Latin and South America). A great similarity of tax systems can be found in countries that had the same development path (e.g. Scandinavian countries) or were part of political integrations (e.g. countries of the Socialist Camp had similar tax systems modelled after the USSR).

<sup>2</sup> For example, the need to finance major world wars in the 20<sup>th</sup> century forced the fiscal authorities of the largest countries to temporarily introduce generous taxes such as sales tax and income tax into the tax systems.

<sup>3</sup> This violated the principle of public finance that "finances follow expenditures", thus increasing fiscal imbalances at lower levels of government, which led to an increase in indebtedness.

systems was also influenced by certain **social factors**.<sup>4</sup> **Economic factors**, such as the development of the economy and the degree of openness of the economy, are important factors that can be decisive for the choice of tax forms. Namely, in less developed countries with a low living standard and a low economic basis for development, it cannot be expected that the budget will be financed from taxation of income and company profits. In such situations, less developed countries choose the taxation of consumption (VAT, excise). The availability of natural resources can lead governments to impose taxes on the exploitation of natural resources. The openness of the economy affects the collection of revenue on international transactions of goods, services, people and capital. For this reason, closed economies cannot count on more generous revenues from the import of goods or financial transactions, as in the case of open countries. **Integration factors** affect the tax systems of countries that enter into economic integration in several ways. On the one hand, in the conditions of the expansion of European integration, countries that are members of the EU and that are applying for membership must harmonize their national tax systems with the European legal framework, which implies the process of harmonizing tax legislation and practice with the minimum taxation standards prescribed at the EU level. In this way, the new member states restructure their national tax systems in accordance with the minimum tax structure prescribed by the EU. Regarding development of the tax structure, the expansion of integration processes leads to the abolition of fiscal borders between member states of an economic integration, with the consequence of a rapid decline in the share of customs revenues in total public revenues (Antić, 2018). **Demographic changes**, in terms of population aging, have led to significant changes in the tax structures of modern countries in recent decades, by increasing social security contributions.

### SPECIFICITIES OF THE TAX STRUCTURE IN B&H

The evolution of the tax system in B&H is characterized by the influence of several aforementioned factors:

- the historical heritage of the socialist system, which left its mark on a structure dominating by indirect taxes and social contributions;
- low economic development, which is reflected in a low share of direct taxes;
- decentralized constitutional and political arrangement, the consequence of which is a complex and fragmented tax system and tax policy;
- integration processes, which entailed the introduction of VAT in accordance with EU directives, the gradual abolition of customs duties on imports from the EU, and harmonization of taxation of tobacco products and oil derivatives in accordance with EU minimum standards.

Regardless of the fact that there are no identical tax systems in the world, under the influence of numerous factors, the process of evolution of taxation led to the formation of basic structure or "skeleton" of tax systems, which exist in the tax systems of almost all countries of the world. The basic structure of tax systems of all modern countries, including EU member states<sup>5</sup>, consists of direct taxes (taxation of individuals - income tax, corporate taxation - profit tax and property taxes), indirect taxes (sales tax/VAT, excise duties, customs duties) and social contributions.

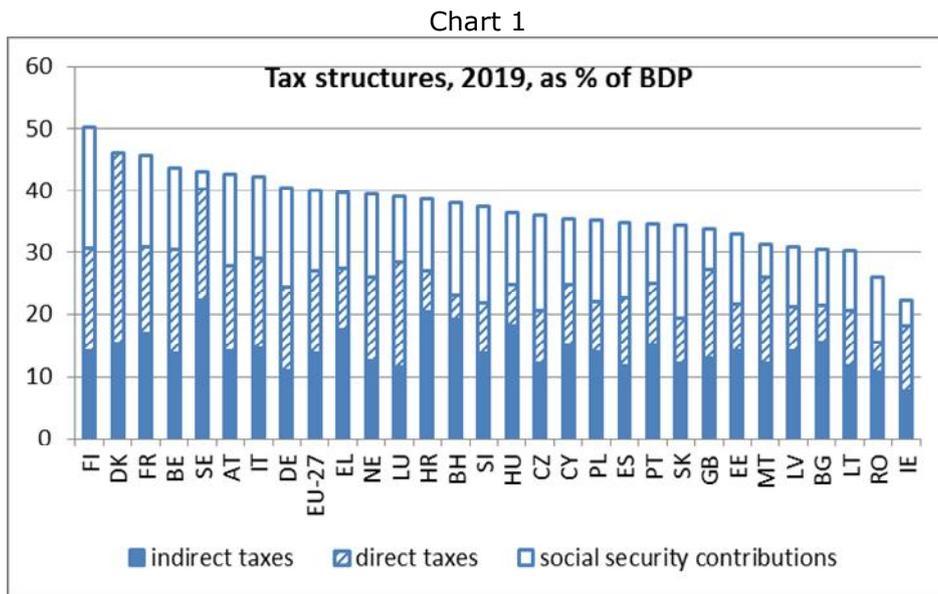
---

<sup>4</sup> The choice of fiscal authorities regarding certain tax forms is influenced by the level of education and technological literacy, the structure of the labor force and citizens' propensity to consume and save. The tax structure is also influenced by the level of citizens' awareness of the desirable and necessary level of fiscal burden. In the Scandinavian countries, where there is a developed awareness of the welfare society, the state provides citizens with a high level of social welfare and security, so that citizens are ready to accept large tax burden. To illustrate: the tax burden in the Scandinavian countries in 2019 was: 50% of GDP in Finland, 46% of GDP in Denmark, and 43% of GDP in Sweden. Tax revenues and revenues from mandatory social insurance are included. Source: European Commission (2021). For comparison, the total tax burden in B&H is 38% of GDP. Source: IMF (2022).

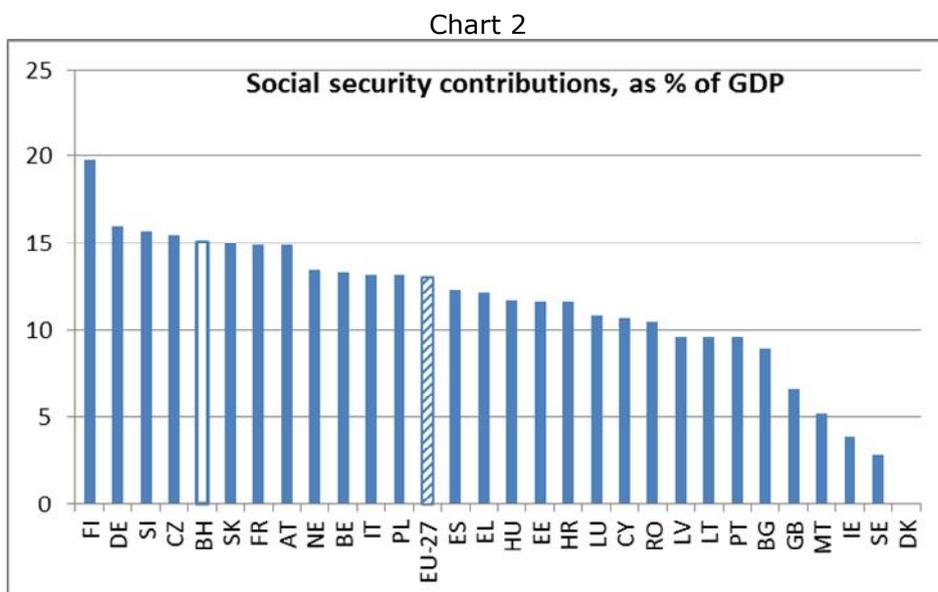
<sup>5</sup> Legend: AT-Austria, BE-Belgium, BG-Bulgaria, CZ-Czech Republic, CY-Cyprus, DE-Germany, DK-Denmark, EE-Estonia, EL-Greece, ES-Spain, FI-Finland, FR-France, HR-Croatia, HU-Hungary, IE-Ireland, IT-Italy, LV-Latvia, LT-Lithuania, LU-Luxembourg, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, RO-Romania, SE-Sweden, SI-Slovenia, SK-Slovakia.

**TAX STRUCTURE IN EU MEMBER STATES VS B&H**

The comparison of the tax structure<sup>6</sup> in EU member states and B&H in Chart 1 points to several conclusions. First, the tax burden, including social contributions, in EU member states reaches as much as 50% of GDP (Chart 1). When observing the level of total tax burden, it can be concluded that B&H is in the middle of European countries, where 16 member states recorded a lower tax burden.



Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.



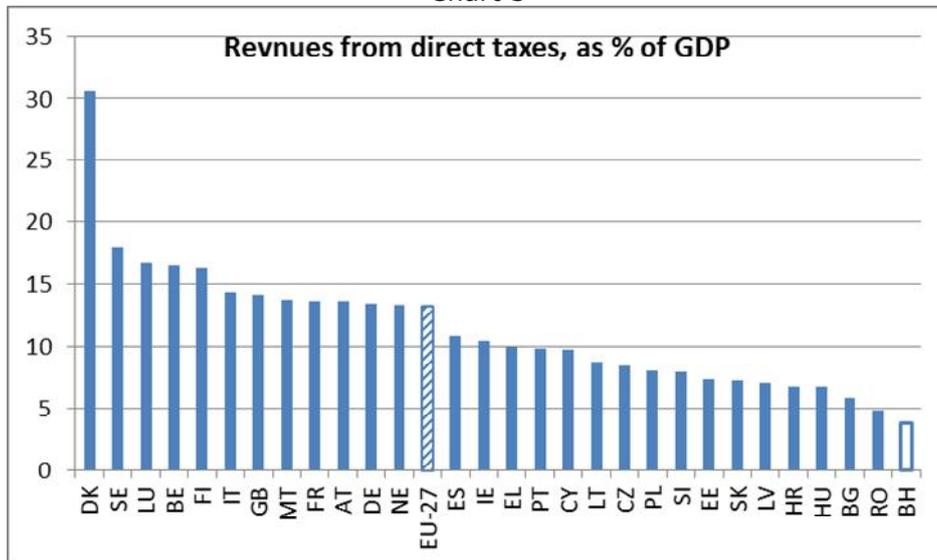
Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

<sup>6</sup> Data on the tax structure of EU member states and B&H refer to the year 2019, as it is the latest available official data. Furthermore, fiscal year 2019 is a more suitable for structural analyses, unlike 2020 and 2021, which were affected by the effects of the coronavirus pandemic. Data sources for tax structure analysis: (i) for EU member states for 2019: European Commission. (2021), (ii) for B&H for 2019: IMF. (2022).

An overview of tax structures in EU member states shows that B&H has high social security contributions as well, above the EU-27 average, and only four EU member states have a higher share of social contributions (Chart 2). It should be noted that Denmark does not have social contributions in its tax system, and that services from this spectrum are financed exclusively from taxes. Considering the discrepancy between the high allocations for social services and their quality, it is obvious that the redefinition and restructuring of the social protection system is necessary in B&H, not only in terms of finding sources of funding for social services, but also in terms of restructuring on the expenditure side.

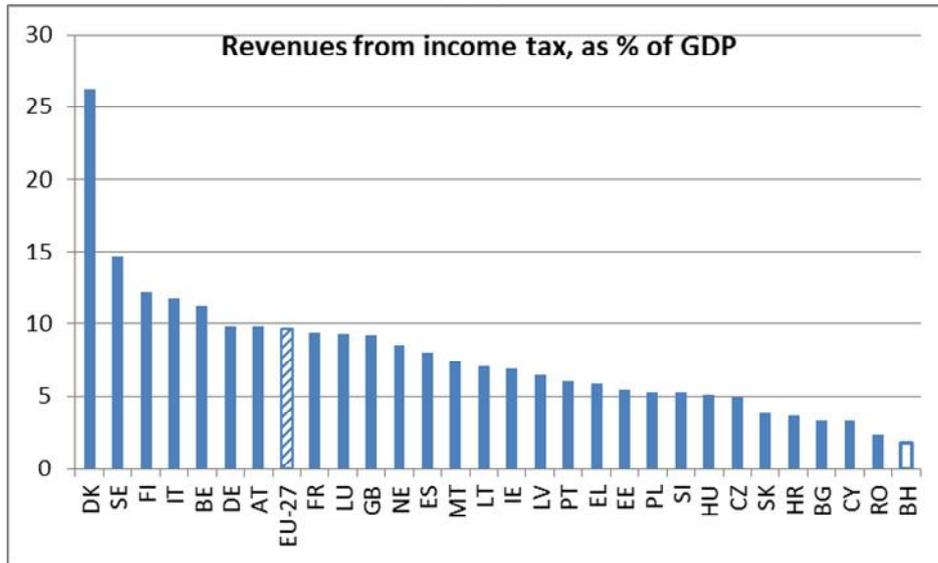
On the other hand, when analyzing shares of direct taxes, B&H is at the bottom of the list of European countries (Chart 3), reflecting the weak economic base and low wages in B&H. Expressed as a percentage of GDP, revenues from income tax is almost identical to revenues from profit tax, but the relative position of B&H in terms of income tax (Chart 4) compared to EU member states is much worse than in the case of profit tax (Chart 5). Low wages and low income tax rates, along with the limited coverage of taxation compared to EU member states, have the consequences of a low level of revenues from income tax. Given that income tax is a source of financing for lower levels of government in B&H, low collection increases dependence on indirect taxes.

Chart 3



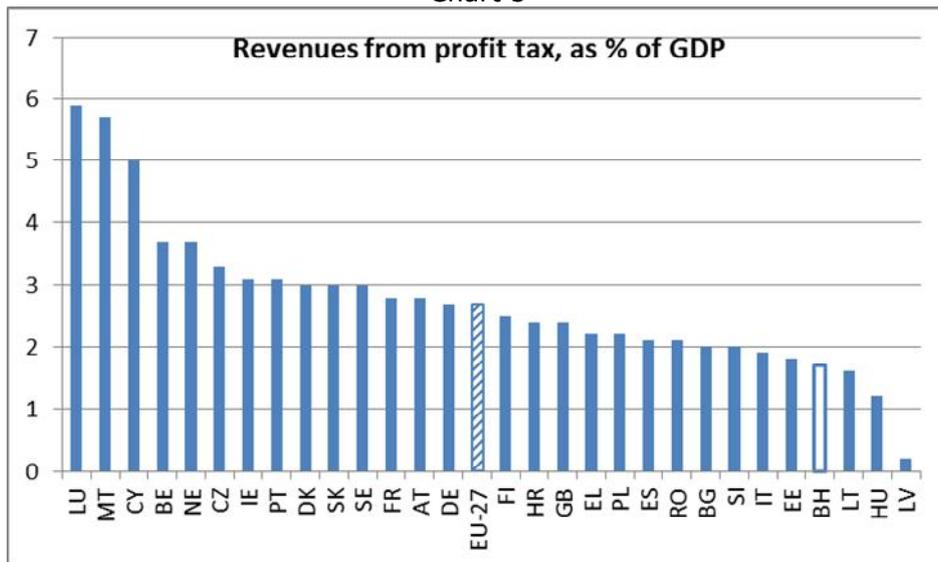
Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

Chart 4



Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

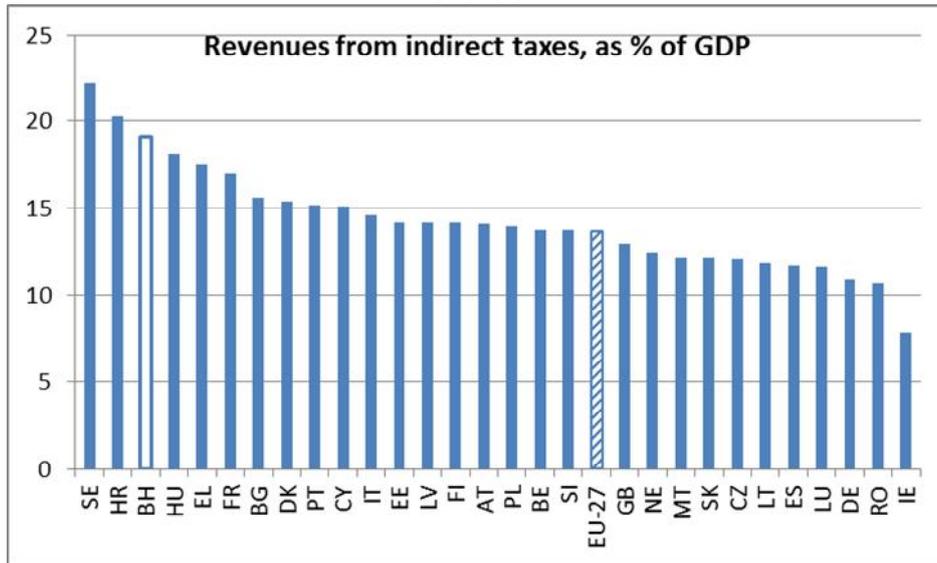
Chart 5



Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

As a consequence of the aforementioned factors, the dominant tax in the structure of tax revenues in Bosnia and Herzegovina is VAT, followed by excise taxes. Considering the complex fiscal system of B&H, VAT is the dominant source of budget financing of all government levels (B&H, entities, cantons, municipalities).

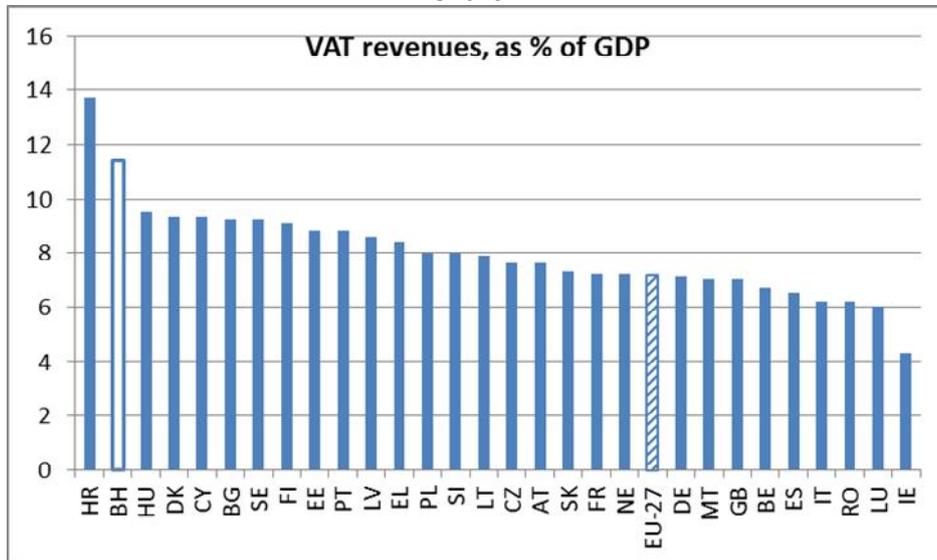
Chart 6



Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

A comparative analysis of the amount of VAT revenue expressed as a percentage of GDP in EU member states shows that only two states, Sweden and Croatia, have a larger share of indirect taxes (Chart 6). However, when it comes to VAT, only Croatia is ahead of Bosnia and Herzegovina in terms of the share of VAT revenue expressed as a percentage of GDP. Likewise, the percentage share of VAT in B&H is far above the EU-27 average (Chart 7).

Chart 7



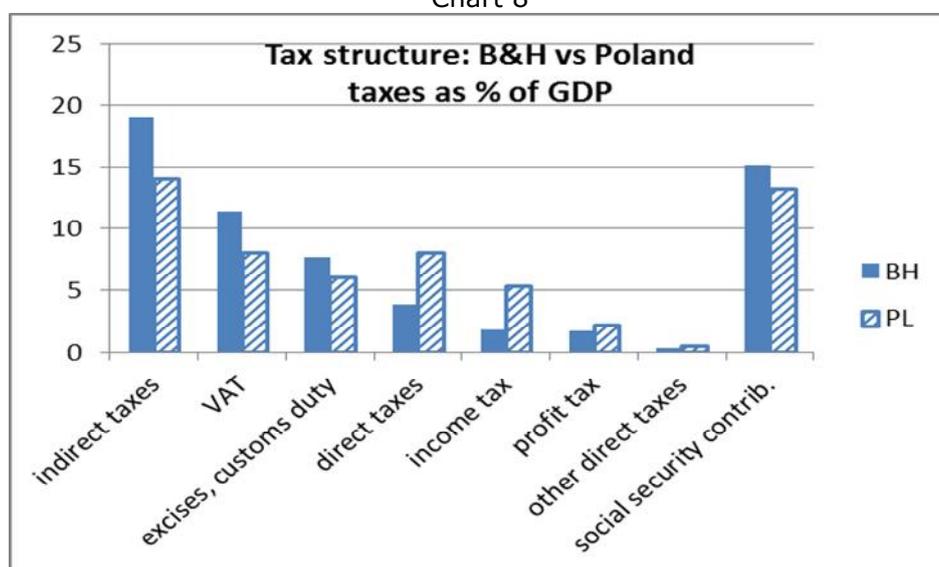
Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

**TAX STRUCTURE AS A LIMITATION OF VAT POLICY IN BIH**

It can be concluded from both the analysis of the tax structure in B&H and a comparison with tax structures in EU member states that B&H depends to a large extent on the collection of VAT revenues. On the other hand, EU member states, especially the older ones from the EU-15, have balanced shares of indirect and direct taxes, which relaxes their possible tax measures, which may

include expanding the scope for the application of reduced VAT rates and even temporarily abolishing VAT and on essential goods, as, for example, happened in Poland during the energy crisis and the war in Ukraine. When proposing initiatives to take over the same or similar tax measures in Bosnia and Herzegovina from some country, it is necessary to analyze the tax system and tax structure in that country in detail. A comparison of the tax structure of B&H and Poland shows that Poland is less dependent on financing from VAT, excise and customs revenues compared to B&H (Chart 8). On the other hand, Poland has a much higher collection of income and profit taxes, which can serve to compensate for the loss of VAT revenues. Finally, when expressed in percentages of GDP, social contributions in Poland are lower than in B&H. It reduces pressure on their budgets, and at the same time represents a positive factor for tax reforms, unlike in B&H, where, despite high social contributions, social funds are subsidized from the budget. This is an additional factor that reduces the flexibility of the B&H fiscal authorities when creating tax measures. The situation is even more difficult in B&H, bearing in mind the complex fiscal structure of B&H in which all levels of government depend on financing from indirect taxes.

Chart 8



Source: data for the EU - European Commission (2021); data for B&H - IMF (2022); the author's presentation.

It can be concluded that the introduction of measures that could result in losses of VAT revenue can threaten the financing of the government levels, especially municipalities, which have limited tax powers and fewer opportunities to borrow or can borrow under worse conditions in order to balance revenues and expenses.

## LITERATURE

Antić, D. (2016). "Tax structures of unitary and complex states - analytical approach to comparative research of tax systems"; (originally "Porezne strukture unitarnih i složenih država - analitički pristup komparativnom istraživanju poreznih sistema"); Revicon, Sarajevo.

Antić, D. (2018). "Liberalization of Foreign Trade in B&H (2007-2017): implications and comparative analysis". OMA Bulletin #152/153, March/April 2018, [www.oma.uino.gov.ba](http://www.oma.uino.gov.ba).

European Commission. (2021). "Taxation Trends in the European Union". Edition 2021.

IMF. (2022). Bosnia and Herzegovina, 2020 Article IV consultation – press release; Staff Report and Statement by the Executive Director for Bosnia and Herzegovina. IMF Country Report No. 21/43. February 2021.

## Indirect taxes in % of GDP: changes in 2021 and comparison with EU member states

(Prepared by: Aleksandra Regoje, macroeconomist)

### Introduction

The OMA bulletin number 199-200 presented an analysis of the impact of the corona virus on indirect taxes in 2020 and their share in the gross domestic product (GDP) in Bosnia and Herzegovina (B&H) with a comparison with the countries of the European Union (EU). It was concluded in the analysis that a strong drop in the share of indirect taxes in GDP by over 1 p.p. was recorded in B&H in 2020 compared to the previous year, reaching one of the lowest annual levels since the establishment of the Indirect Taxation Authority (ITA), only 0.1 p.p. more than in the "crisis" year of 2009. Indirect taxes in 2020 fell by as much as 9.3% compared to the previous year. In the same year, there was a significant drop in private consumption due to the implementation of restrictive measures, and an increase in government consumption due to support for health systems. The calculation of the indicators was made on the basis of data on the collection of indirect taxes on the Single Account of the ITA, and on trends in final consumption and GDP on the basis of data from Agency for Statistics of B&H (BHAS). When comparing with EU countries, in the same article it was concluded that the decline in indirect taxes in GDP of B&H in 2020 was higher than in the EU-27 due to a higher decline in the share of indirect taxes in consumption, despite a higher growth in the share of consumption in GDP in B&H, thanks to the trends in private consumption.

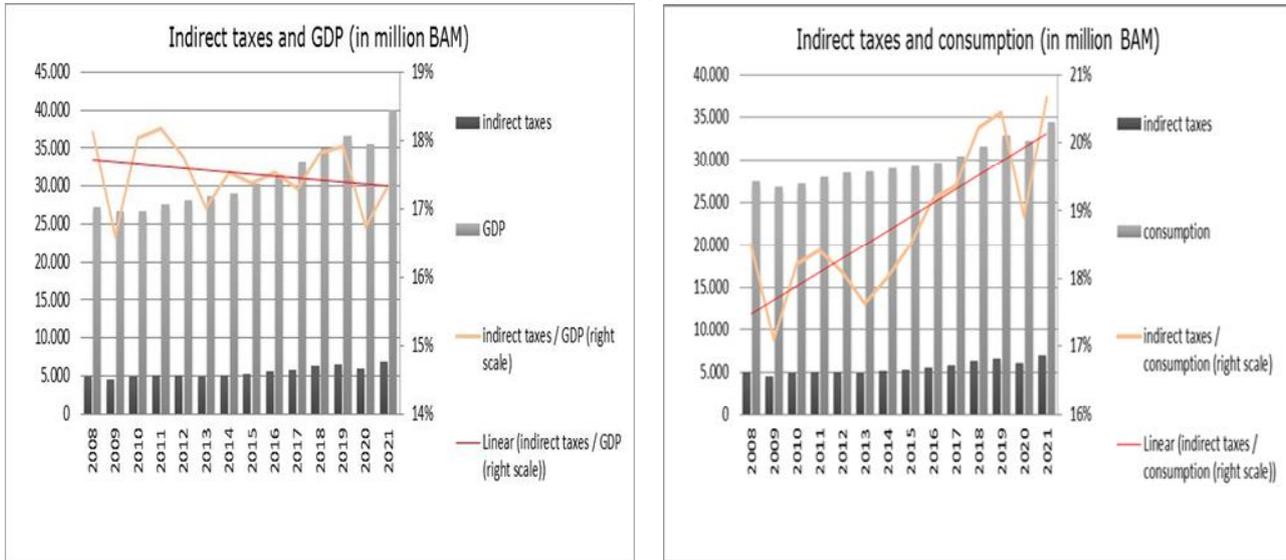
In this article, the focus is on the changes in the mentioned indicators in 2021 compared to the previous year, and compared to the pre-crisis year 2019. As in the previous analysis, the definitions of consumption tax in B&H and the EU were taken into account when comparing the data. In the tax system of Bosnia and Herzegovina, taxes on consumption include indirect taxes: VAT, excises, customs and road fees. The consumption tax category in B&H differs from the scope of this type of revenue in the European Union. For this reason, for the purposes of comparing the results, in the case of the EU, data were also taken for indirect taxes instead of consumption taxes, or specifically: '*Taxes on production and import*' from the Eurostat database for the 'General government' sector. The cut-off date for data in this analysis was end of November 2022.

### 1. Historical trends

In almost all years since the establishment of the ITA, there have been increases in revenues collected at the ITA Single Account. The exceptions were: the "crisis" year of 2009, when there was a 9.9% drop in revenue, stagnation and a milder drop in revenues in 2012 and 2013, and a drop in 2020 of 9.3% as a result of the effects of the corona virus. Increases in these revenues were recorded in all other years, and the highest was achieved in 2021, at a rate of 16.7%.

Revenues from indirect taxes at the ITA Single Account increased by 40.4% in 2021 compared to 2008. In the same period, according to data of the Agency for Statistics of B&H (BHAS), GDP of B&H increased by 46.9% and total consumption (private and government) by 25.4%. From the above, it can be concluded that revenues from indirect taxes increased more than total consumption and less than GDP in the mentioned period. The share of indirect taxes in GDP, therefore, recorded a downward trend, while the share of indirect taxes in consumption had an upward trend (Chart 1)

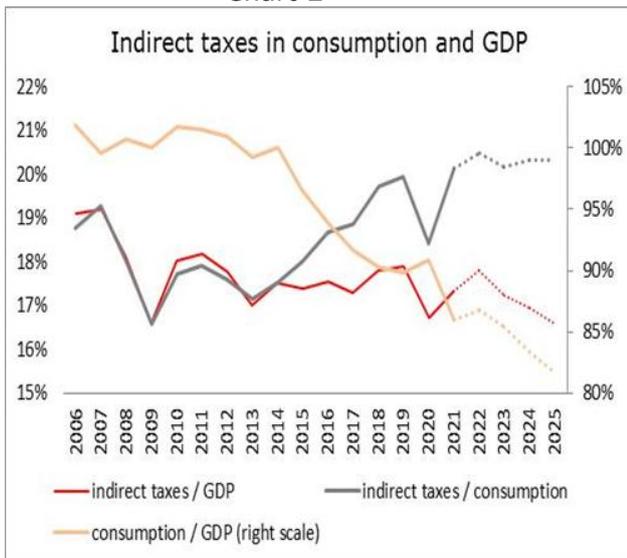
Chart 1



Source: Author's presentation based on ITA and BHAS data

The share of indirect taxes collected at the Single Account of the ITA in GDP has varied in the observed period (coefficient of variation 2.7%) ranging from 16.6% (minimum value, year 2009) to 19.2% (maximum value, 2007). In the previous year, 2021, it amounted to 17.3%. The dynamics of indirect taxes in GDP depended on a number of factors: trends in tax rates and bases, efficiency of tax collection, trends in consumption, but also in other categories of GDP (investments, imports and exports), which, in addition to consumption, affected the level of the denominator of this indicator. The share of indirect taxes at the ITA Single Account in total consumption varied even more in the period 2008-2021 (coefficient of variation 5.6%), and from 2014 to 2019 it had a continuous growth trend. In 2019, it amounted to 19.9%, while in 2020 it dropped to 18.4%. In 2021, it grew again to 20.1%, which was the maximum since the establishment of the ITA (Chart 2).

Chart 2



Box 1. Projections for the period 2022-2024

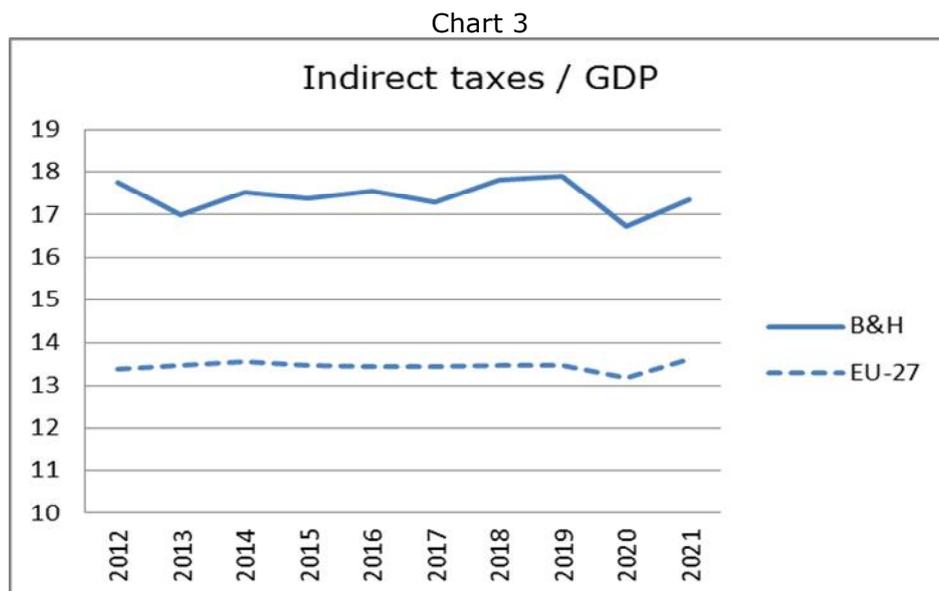
Based on projections of the MAU from October 2022, Chart 2 (dashed lines) shows the expected trends in shares of indirect taxes in GDP and consumption in the coming period, while based on the DEP's projections from September 2022, projections of consumption share in GDP are shown. In 2022, a further increase in the share of revenues from indirect taxes in GDP is projected to 17.8% and after that, the decreasing trend in the period 2023-2025. For the year 2022, the growth of indirect taxes in consumption is projected to 20.5%, and after that, in the period 2023-2025, stagnation at the level of around 20.2%-20.3%. Projections of consumption share in GDP indicate a slight growth in 2022 (+0.8 p.p.), after which a downward trend is expected.

Source: Author's presentation based on ITA and BHAS data and MAU projections

In the OECD's 2020 analysis<sup>7</sup>, the share of consumption tax in GDP is broken down into the product of the share of consumption tax in consumption expenditure (which is actually one of the old equations<sup>8</sup> for calculating the implicit tax rate on consumption or ITRC) and the share of consumption in GDP. In the aforementioned analysis, in the ITRC calculation, consumption includes both private and total government final consumption. The ITRC component shows the effects of changes in consumption, i.e., the tax base, as well as the effects of changes in tax rates and the degree of compliance with regulations. The second component of the equation - the share of consumption in GDP, refers to the effects of changes in GDP and its components.<sup>9</sup> According to the calculation based on the formula, the decline in share of consumption in GDP was responsible for the downward trend in indirect tax revenues in GDP in B&H. This does not mean that there was a drop in consumption in absolute terms, but that the GDP growth rate was higher than the growth rate of the consumption component. Total consumption in absolute amounts grew in all years of the analyzed period 2008-2021, with exceptions in the crisis years: 2009 and 2020. As already stated, in 2021, total final consumption was 25.4% higher than in 2008. In the same period, share of total consumption in GDP decreased by a high 14.7 p.p.

## 2. Components of the share of indirect taxes in GDP in EU-27 and Bosnia and Herzegovina

Chart 3 presents a comparison of the share of indirect taxes in GDP for the EU-27 and B&H, while Chart 4 presents a comparison of the components.



Source: Data for EU-27 were taken from the Eurostat database for the "General government" sector (November 2022), Table "Taxes on production and imports", while the data for B&H refer to the author's calculation based on the ITA and BHAS data

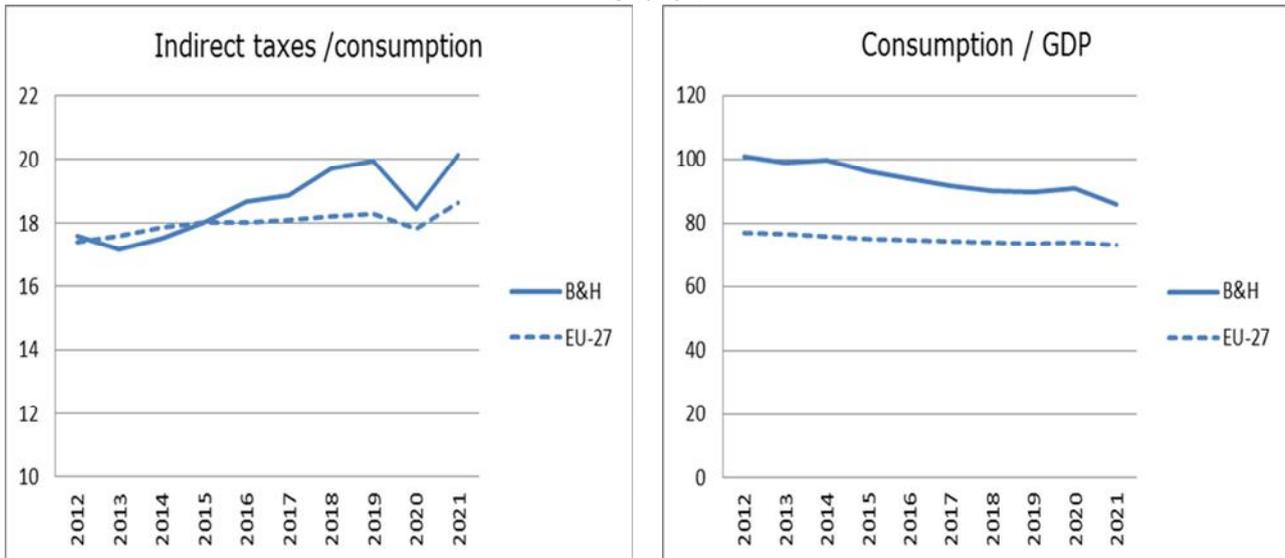
<sup>7</sup> "What drives consumption tax revenues? Disentangling policy and macroeconomic drivers"; H. Simon, M. Harding, OECD, 2020.

<sup>8</sup> The ITRC definition has been changed several times, and was last updated in the 2021 edition of the European Commission's report („Taxation Trends in the European Union" Directorate-General for Taxation and Customs Union, European Commission, Publications Office of the European Union, Luxembourg, 2021., p. 268.) According to the given definition, the formula for the Implicit tax rate on consumption (ESA 2010) is:  $ITRC = \text{Taxes on consumption} / (1)+(2)+(3)+(4)+(5)$  where: (1) P31\_S.14dom: Final consumption expenditure of households on the economic territory (domestic concept); (2) P2\_S13: Intermediate consumption of general government; (3) P2\_S15: Intermediate consumption of non-profit institutions serving households; (4) D632\_S13: Social transfers in kind of general government; (5) D632\_S15: Social transfers in kind of non-profit institutions serving households.

<sup>9</sup> More about the methodology in Regoje A., "Taxes on consumption as a share in GDP in B&H in the period 2008-2020"; OMA Bulletin 193-194. [www.oma.uino.gov.ba](http://www.oma.uino.gov.ba).

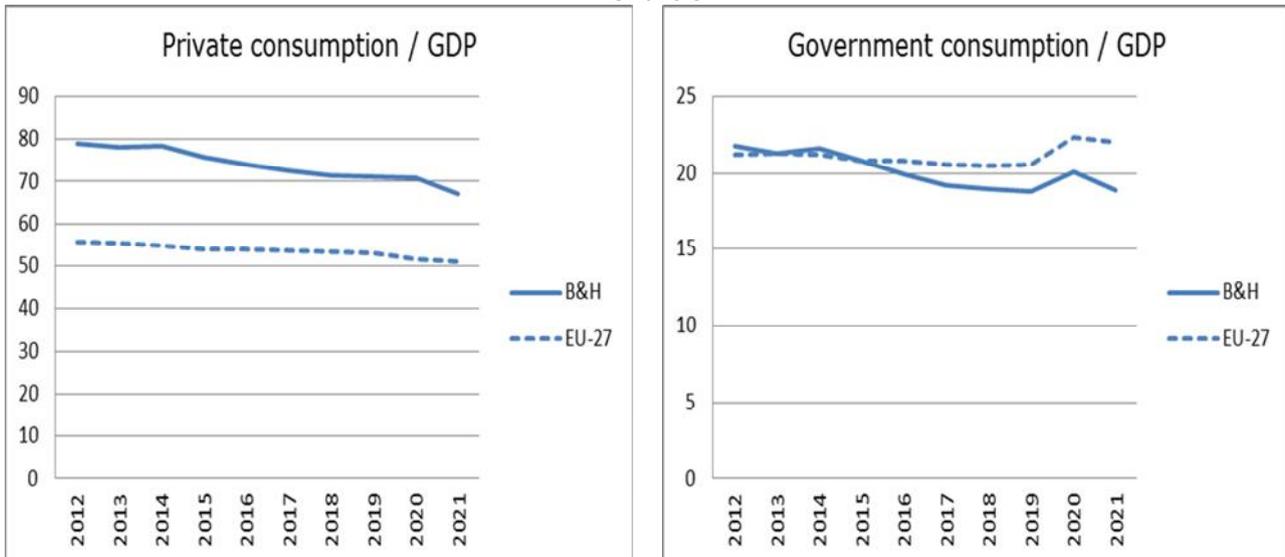
It can be concluded from charts 3 and 4, that the share of indirect taxes in GDP is at a much higher level in B&H compared to the EU-27, and that the higher share of consumption in GDP is "responsible" for this, while the share of indirect taxes in consumption is at an approximately equal level. Chart 5 presents a comparison of the share of consumption components in GDP for B&H and EU-27. It can be concluded that the differences in the shares of consumption in GDP originate from the differences in the shares of private consumption, not government.

Chart 4



Source: The data for EU-27 is the author's calculation based on data from the Eurostat database (Tables: *Taxes on production and imports, Household and NPISH final consumption expenditure, Final consumption expenditure of general government and Gross domestic product at market prices*, data withdrawn in November 2022), while the data for B&H refer to the author's calculation based on the ITA and BHAS data

Chart 5

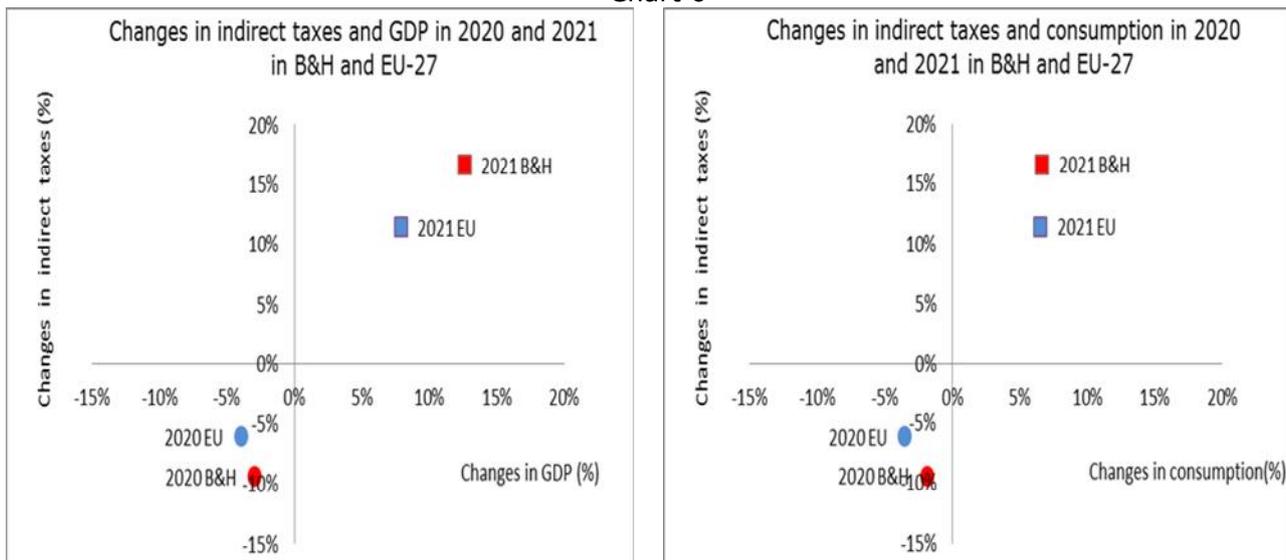


Source: The data for EU-27 is the author's calculation based on data from the Eurostat database (Tables: *Household and NPISH final consumption expenditure, Final consumption expenditure of general government and Gross domestic product at market prices*, data withdrawn in November 2022), while the data for B&H refer to the author's calculation based on the ITA and BHAS data

### 3. Change in the share of indirect taxes in 2021 compared to the previous and pre-crisis (2019) year: B&H vs EU-27

If we look at Chart 6, we can conclude that the decline in indirect taxes in 2020 was higher in B&H compared to the EU-27 (B&H: -9.3%; EU-27: -6.1%), with a smaller decline in GDP (B&H: -3.0%; EU-27: -4.0%), and a smaller decline in consumption (B&H: -1.8%; EU-27: -3.5%). In 2021, the growth of indirect taxes in B&H was higher than in the EU-27 (B&H: 16.7%; EU-27: 11.5%), with higher GDP growth (B&H: 12.6%; EU-27: 7.9%) and an approximately equal growth in consumption (B&H: 6.7%; EU-27: 6.5%).

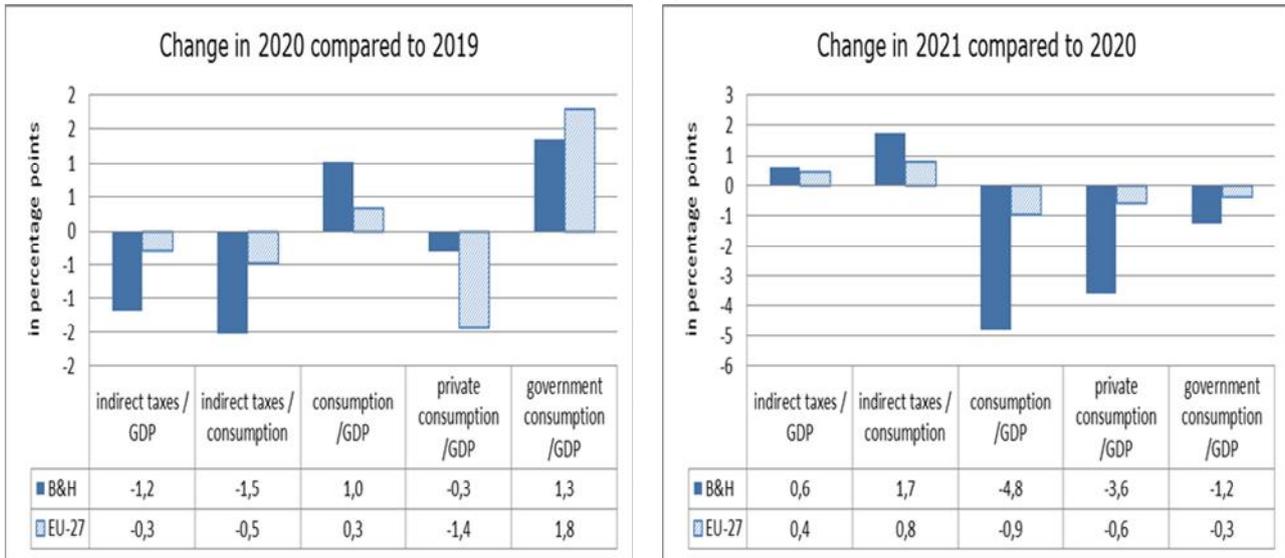
Chart 6



Source: The parameters for EU-27 are the author's calculation based on data from the Eurostat database (data for the "General government" sector withdrawn in November 2022). The parameters for B&H are the author's calculation based on the ITA and BHAS data.

In the analysis from Bulletin 199-200, it was concluded that the decline of indirect taxes in the GDP of B&H in 2020 compared to the previous year (-1.2 p.p.) was higher than in the EU-27 (-0.3 p.p.) due to a higher decline in the share of indirect taxes in consumption, despite a higher growth in the share of consumption in GDP in B&H (Chart 7, left).

Chart 7



Source: The parameters for EU-27 are the author's calculation based on data from the Eurostat database (Tables: *Taxes on production and imports* for the "General government" sector, *Household and NPISH final consumption expenditure*, *Final consumption expenditure of general government* and *Gross domestic product at market prices*; data withdrawn in November 2022). The parameters for B&H are the author's calculation based on the ITA and BHAS data.

In 2021, the share of indirect taxes in GDP in the EU-27 increased by 0.4 p.p. compared to the previous year (from 13.2% to 13.6%; Chart 3 and Chart 7, right). The mentioned growth is smaller compared to the realized growth of corresponding share in B&H (0.6 p.p.). The growth of the share of indirect taxes in consumption in 2021 compared to the previous year was lower in EU-27 compared to B&H (0.8 p.p. in EU-27; 1.7 p.p. in B&H). The share of total consumption in GDP decreased in both cases. In the case of EU-27, the share of total consumption in GDP decreased by 0.9 p.p., and in B&H by 4.8 p.p. The decline in total consumption in the EU was the cumulative effect of the decline in the share of private consumption in GDP (0.6 p.p.) and the decline in the share of government consumption (0.3 p.p.). In the case of B&H, both components of consumption in GDP also decreased; private by 3.6 and government by 1.2 p.p. From all of the above, it can be concluded that **the growth of indirect taxes in the GDP of B&H in 2021 compared to the previous year was slightly higher than in the EU-27 due to the higher growth of the share of indirect taxes in consumption, despite a much higher decline in the share of consumption in GDP in Bosnia and Herzegovina.**

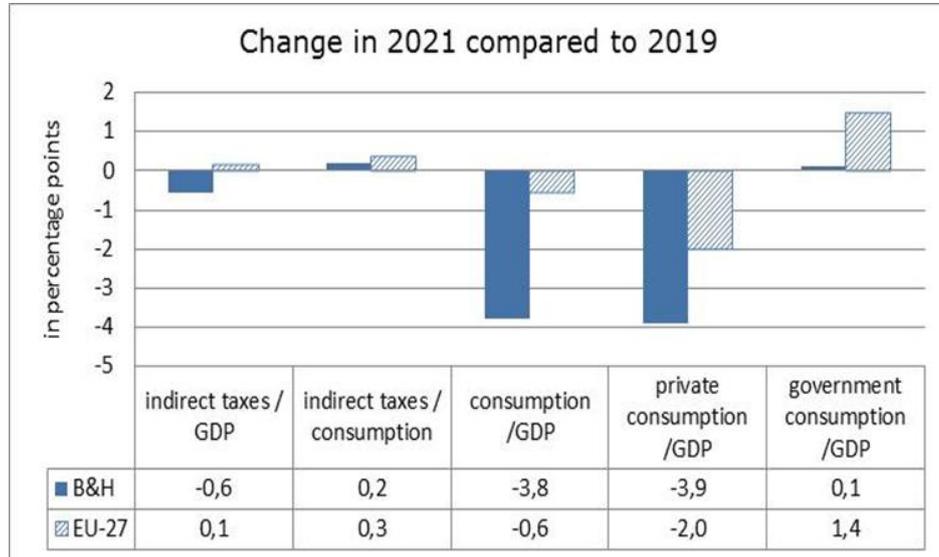
According to BHAS data, final consumption expenditures in B&H increased by 6.7% in 2021 compared to the previous year. The decline in the share of consumption in GDP occurred because GDP grew (12.6%) faster than consumption. In the same year, other expenditure GDP categories recorded extremely high growth rates: gross investments 26.8%, export of goods and services 38.9% and import of goods and services 26.7%.<sup>10</sup>

When we summarize data from the left and right side of Chart 7, we will get the calculation shown in Chart 8, i.e. the changes in the period 2019-2021. Changes in the share of indirect taxes in GDP in 2021 compared to the pre-crisis year 2019 went in opposite directions in B&H and EU-27. In Bosnia and Herzegovina, this share decreased by 0.6 p.p., while in the EU it slightly increased by 0.1 p.p. In the same period, the share of indirect taxes in consumption increased in both cases, in B&H by 0.2 p.p., and in the EU-27 by 0.3 p.p. The share of consumption in GDP decreased, in the case of B&H by 3.8 p.p. (as a result of the decline in the share of private consumption), and in the

<sup>10</sup> Gross domestic product for Bosnia and Herzegovina in 2021; Expenditure approach, first results September 30, 2022; Agency for Statistics of B&H

EU-27 by 0.6 p.p. (as a cumulative result of the decline in the share of private consumption and growth in the share of government consumption).

Chart 8



Source: Eurostat database (same sources as in Chart 8) for EU-27 parameters; The parameters for B&H are author's calculation based on the ITA and BHAS data.

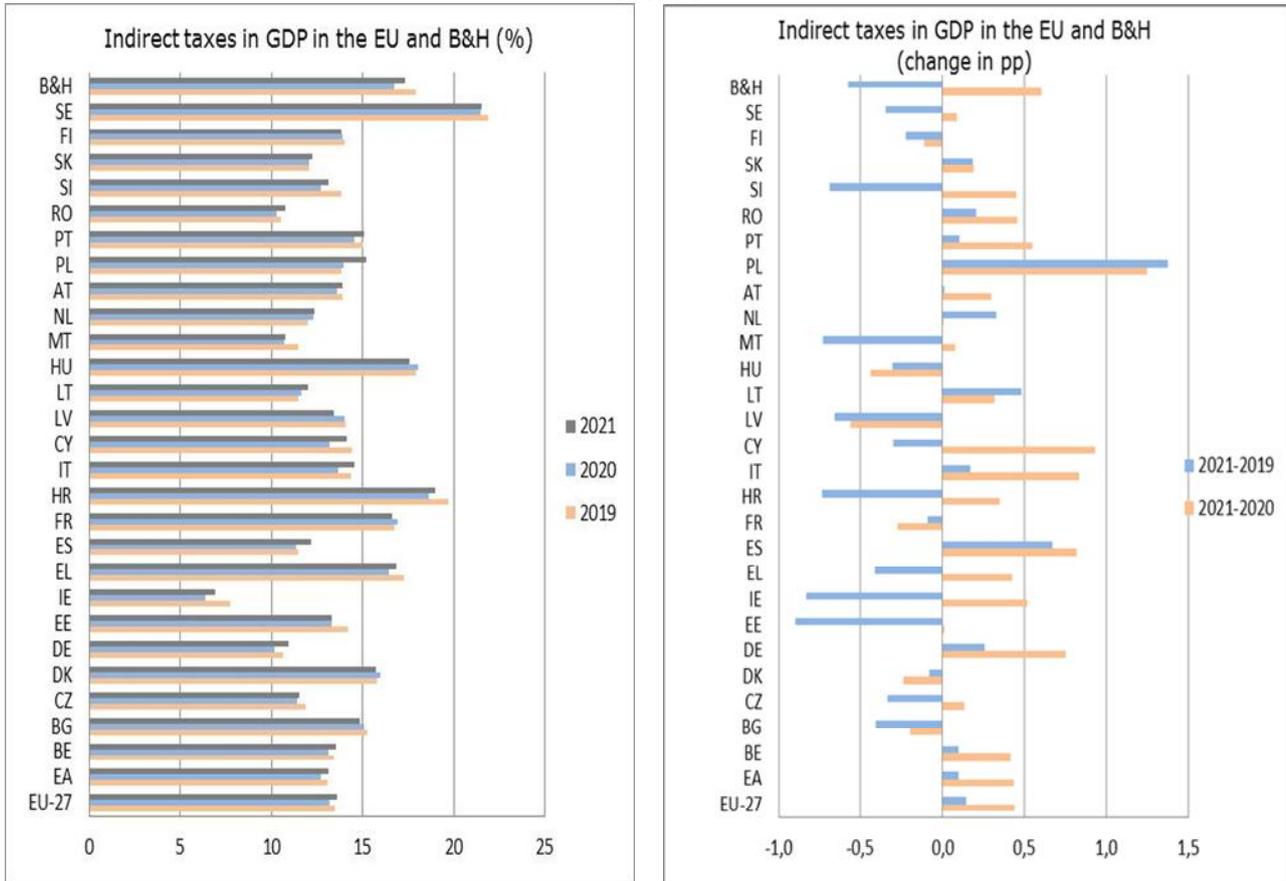
The final consumption expenditure in B&H increased by 4.7% in the period from 2019 to 2021, according to BHAS data. The aforementioned decline in the share of consumption in GDP occurred because GDP grew faster (9.3%) than consumption in the mentioned period. In the same period, gross investments grew by 14.5%, export of goods and services by 15.0%, and import of goods and services by 8.2%.<sup>11</sup>

#### 4. Change in the share of indirect taxes in GDP in 2021: B&H vs individual EU member states

Chart 9 shows shares of indirect taxes in GDP in 2019, 2020 and 2021 (left), and changes in the same indicator in the periods 2020-2021 and 2019-2021 (right).

<sup>11</sup> Ibid.

Chart 9



Source: The parameters for EU-27<sup>12</sup> are the author's calculation based on data from the Eurostat database (Tables: *Taxes on production and imports* for the 'General government' sector and *Gross domestic product at market prices*; data withdrawn in November 2022). The parameters for B&H are the author's calculation based on ITA and BHAS data.

**4.1. Share of indirect taxes in GDP in 2021**

As already mentioned, the share of indirect taxes in GDP in the EU-27 in 2021 was 13.6%. Countries with the lowest share were Ireland (6.9%), Romania (10.7%) and Malta (10.8%). On the other hand, countries with the highest share of indirect taxes in GDP were Sweden (21.5%), Croatia (18.9%) and Hungary (17.6%). Those three member states are also the countries that had a higher share of indirect taxes in GDP than B&H (17.3%) (Chart 9, left).<sup>13</sup> Data on indirect taxes for Luxembourg are not available in the Eurostat database after 2018.

**4.2. Change in the share of indirect taxes in GDP in 2021 compared to 2020**

Changes in shares of indirect taxes in GDP in 2021 compared to the previous year were quite different among EU-27 member states. Drop in the share of indirect taxes in GDP was recorded in six member states: Latvia (-0.6 p.p.), Hungary (-0.4 p.p.), France (-0.3 p.p.), Denmark (-0.2 p.p.), Bulgaria (-0.2 p.p.) and Finland (-0.1 p.p.). Two member states had stagnation in the share of indirect taxes in GDP (Estonia and the Netherlands), while all others, for which data were

<sup>12</sup> Legend for charts: 9,10 and 11: AT-Austria, BE-Belgium, BG-Bulgaria, CZ-Czech Republic, CY-Cyprus, DE-Germany, DK-Denmark, EE-Estonia, EL-Greece, ES-Spain, FI-Finland, FR-France, HR-Croatia, HU-Hungary, IE-Ireland, IT-Italy, LV-Latvia, LT-Lithuania, LU-Luxembourg, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, RO-Romania, SE-Sweden, SI-Slovenia, SK-Slovakia.

<sup>13</sup> These are data for the 'General government' sector.

available<sup>14</sup>, recorded growth. Countries that recorded largest increase in the share of indirect taxes in GDP in 2021 compared to the previous year were: Poland (+1.2 p.p.), Cyprus (+0.9 p.p.), Spain (+0.8 p.p.), Italy (+0.8 p.p.) and Germany (0.7 p.p.). Those five member states were also the countries that achieved higher increases in shares of indirect taxes in GDP compared to the achieved increase of that share in B&H (0.6 p.p.) in 2021 (Chart 9, right side).

### **4.3. Change in the share of indirect taxes in GDP in 2021 compared to 2019**

It has already been noted that the change in the share of indirect taxes in GDP in 2021 compared to 2019 in the EU-27 amounted to +0.1 p.p. Compared to the mentioned pre-crisis year, of the 26 EU member states for which data are available, fifteen recorded a decline, one a stagnation, and the other members an increase in the share of indirect taxes in GDP. Estonia achieved the largest decline (-0.9 p.p.) and Poland the highest growth (+1.4 p.p.) of the share of indirect taxes in GDP in 2021 compared to 2019. In the case of Bosnia and Herzegovina, the share of indirect taxes in GDP decreased by 0.6 p.p. in the specified period (Chart 9, right).

## **5. Change in the share of indirect taxes in consumption in 2021: B&H vs individual EU member states**

Chart 10 shows the share of indirect taxes in consumption in 2019, 2020 and 2021 (left), and changes in the same indicator in the periods 2020-2021 and 2019-2021.

### **5.1. Share of indirect taxes in consumption in 2021**

The share of indirect taxes in consumption in the EU-27 in 2021 was 18.6%, while in B&H it amounted to 20.1%. The EU member states with the lowest share of indirect taxes in consumption were Romania (13.5%), Germany (15.3%) and Slovakia (15.5%), while the member states with the highest share were Sweden (30.8%), Hungary (25.4%) and Croatia (23.8%). Based on the data from Chart 10 (left), we can see that six EU-27 member states had a higher share of indirect taxes in consumption than B&H in 2021.

### **5.2. Change in the share of indirect taxes in consumption in 2021 compared to 2020**

Three EU-27 member states recorded a decline in the share of indirect taxes in consumption in 2021 compared to the previous year: Latvia (-0.9 p.p.), Finland (-0.2 p.p.) and Bulgaria (-0.1 p.p.). Four member states experienced stagnation in this share (Netherlands, France, Denmark and Hungary), while all other member states (for which data were available) saw growth (Chart 10, right). Compared to B&H, where the share of indirect taxes in consumption grew by 1.7 p.p. in 2021 compared to the previous year, only two EU member states had a higher growth: Ireland (2.3 p.p.) and Poland (1.8 p.p.).

Since over 50% of revenues from indirect taxes of the EU-27 General government refer to VAT<sup>15</sup>, the change in the share of this revenue component in total consumption was also calculated. It should first be mentioned that during the observed period, no EU member state has changed the standard VAT rate. The average VAT rate (unweighted average) for the EU-27 has been stable at the level of 21.5 since 2016.<sup>16</sup> The share of VAT revenue in consumption for the EU-27 level increased by 0.8 p.p. in the period 2020-2021, while in B&H it increased by 1.3 p.p.

<sup>14</sup> Data for Luxembourg are not available.

<sup>15</sup> In 2021, 54.6% of revenues from indirect taxes refers to VAT (author's calculation based on data from the Eurostat database)

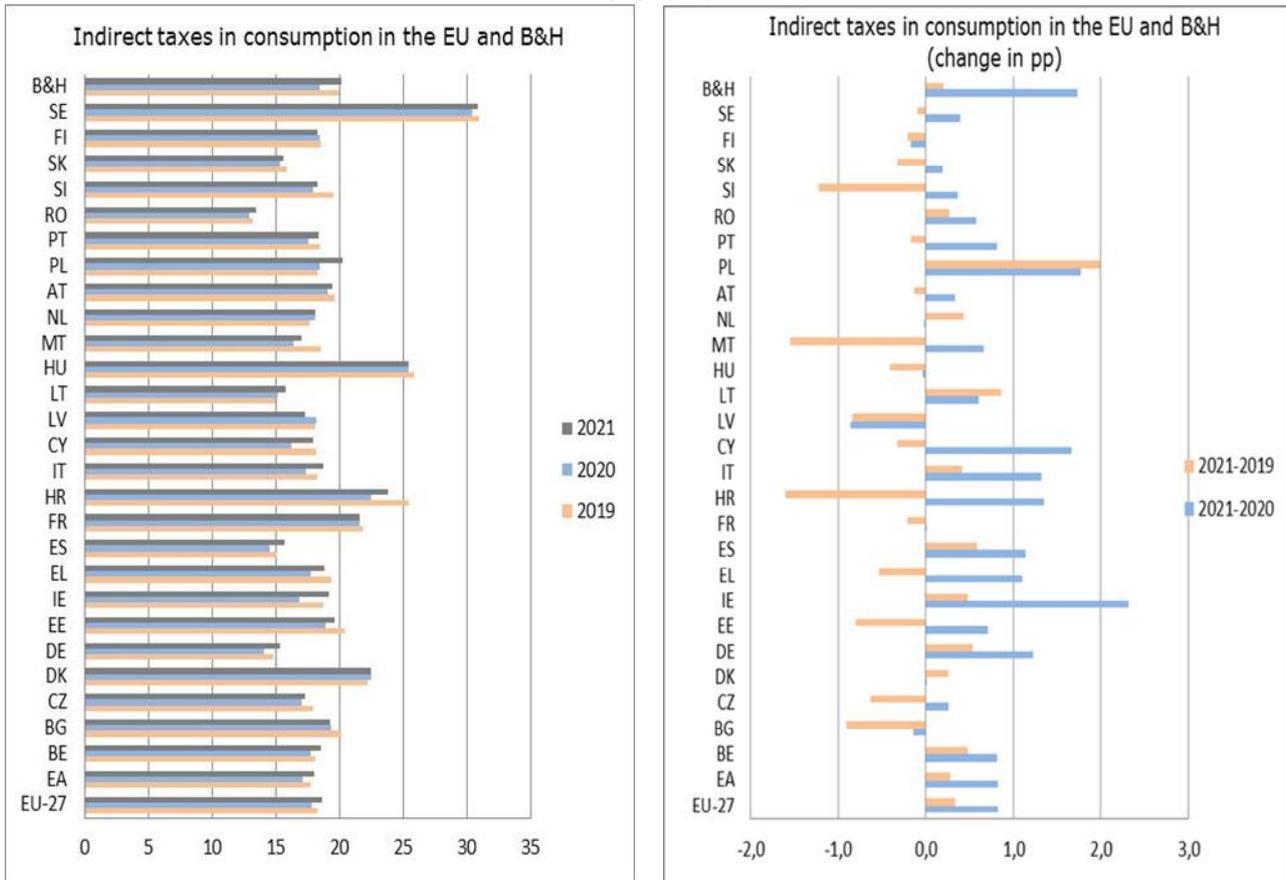
<sup>16</sup> Source: Taxation Trends in the European Union, 2022 edition, Directorate-General for Taxation and Customs Union, European Commission, Publications Office of the European Union, Luxembourg, 2022., p.36

**5.3. Change in the share of indirect taxes in consumption in 2021 compared to 2019**

Sixteen EU-27 member states recorded a decrease in the share of indirect taxes in consumption in 2021 compared to 2019 (the largest decrease was recorded in Croatia: -1.6 p.p.), and ten member states recorded an increase (the largest increase was recorded in Poland: 2.0 p.p.). As already mentioned, B&H recorded a slight growth of this share of 0.2 p.p in the observed period.

The share of VAT revenue in consumption for the EU-27 increased by 0.5 p.p. in the period 2019-2021, while in B&H it increased by 0.6 p.p. in the same period.

Chart 10



Source: The parameters for EU-27 are the author's calculation based on data from the Eurostat database (Tables: *Taxes on production and imports for the 'General government' sector, Household and NPISH final consumption expenditure, Final consumption expenditure of general government*; data withdrawn in November 2022). The parameters for B&H are the author's calculation based on ITA and BHAS data.

**6. Change in the share of consumption in GDP in 2021: B&H vs individual EU member states**

Chart 11 shows shares of consumption in GDP in 2019, 2020 and 2021 (left), and changes in the same indicator in the periods 2020-2021 and 2019-2021.

**6.1. Share of consumption in GDP in 2021**

Although it has a long-term downward trend (Chart 4, right side), the share of total consumption in GDP in 2021 was much higher in B&H (86%) than the EU-27 average (73%). Based on the data from Chart 11 (left side), we can conclude that only Greece had a higher share of consumption in

GDP (89.6%) than B&H in 2021. The lowest share of this indicator was recorded in Ireland (35.9%) and Luxembourg (47.7%).

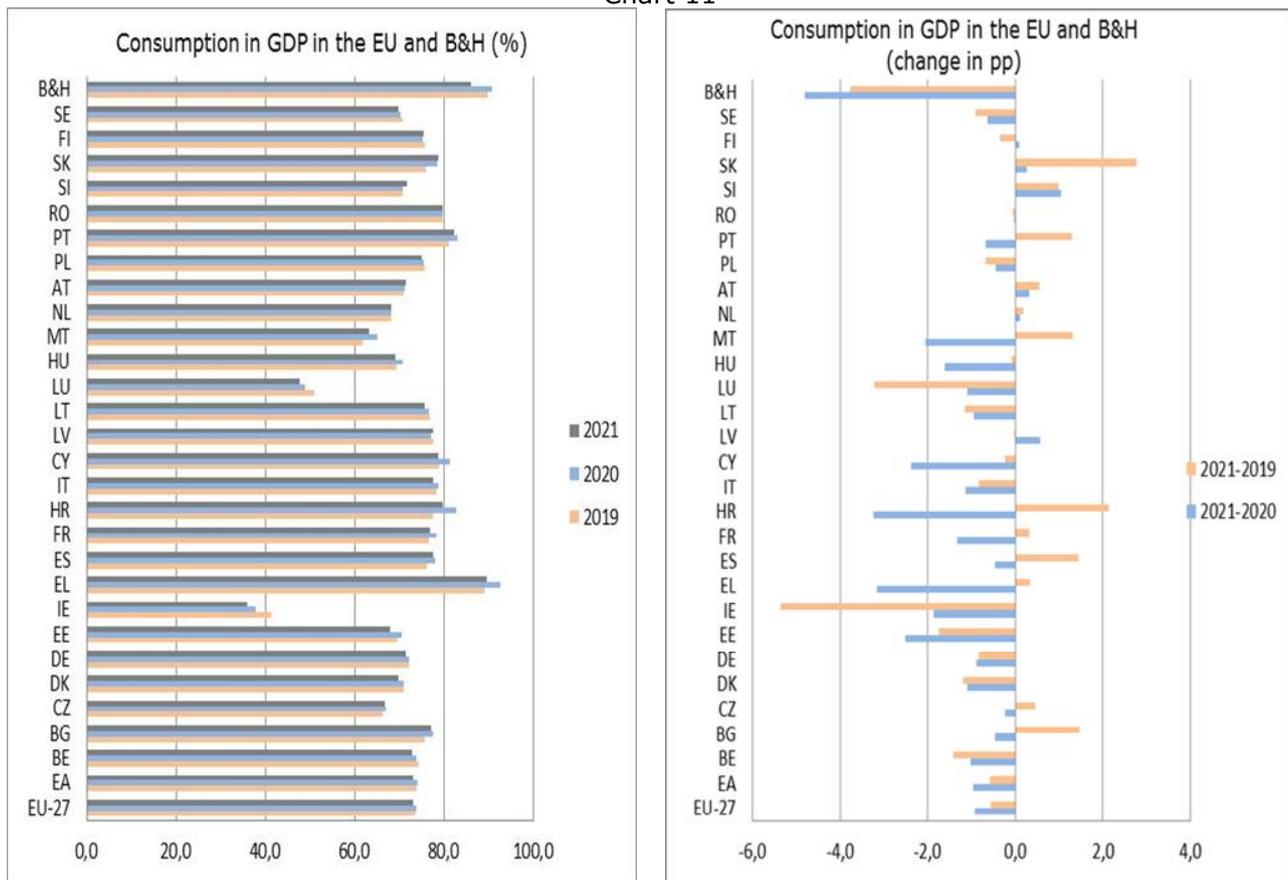
### 6.2. Change in the share of consumption in GDP in 2021 compared to 2020

The change in the share of consumption in GDP in 2021 compared to 2020 was mostly negative and higher in B&H (-4.8 p.p.) than in any EU-27 member state (Chart 11, right). Croatia and Greece recorded the highest negative changes in the share of consumption in GDP in 2021 compared to 2020 (-3.2 p.p. each). One member state of the EU-27 had stagnation in this indicator, while six countries had growth (Slovenia, Latvia, Slovakia, Austria, Finland and the Netherlands).

### 6.3. Change in the share of consumption in GDP in 2021 compared to 2019

Compared to the pre-crisis year 2019, fourteen member states recorded a decline in the share of consumption in GDP, one member state recorded stagnation, and the other twelve countries recorded an increase in the share of consumption in GDP in 2021. Compared to the same year, in 2021, B&H recorded a decrease in the share of consumption in GDP of 3.8. p.p. Of all the EU-27 members, only Ireland recorded a higher decline in this indicator than B&H in the observed period (Chart 11, right side).

Chart 11



Source: The parameters for EU-27 are the author's calculation based on data from the Eurostat database (Tables: Household and NPISH final consumption expenditure, Final consumption expenditure of general government and Gross domestic product at market prices; data withdrawn in November 2022). The parameters for B&H are the author's calculation based on ITA and BHAS data.

## 7. Comparison of changes in the share of indirect taxes in GDP for B&H and EU-27 member states broken down into components

The author's calculation for EU member states and B&H shown on the right sides of charts 9-11 is summarized in Table 1. Based on the data from Table 1, conclusions can be drawn about how the changes in indicators: 'share of indirect taxes in consumption' and 'share of consumption in GDP' contributed to changes in the share of indirect taxes in GDP.

For example, the table shows that Poland, the country that achieved the highest growth in the share of indirect taxes in GDP in 2021 compared to the previous year (+1.2 p.p.), achieved this growth thanks to the increase in the share of indirect taxes in consumption of 1.8 p.p. and a decrease in the share of consumption in GDP of 0.5 p.p. The changes for the level of EU-27 (average) and B&H have already been described in Chapter 3 of this article.

Table 1. Changes in the share of indirect taxes in GDP broken down into components

	Change 2021-2020 (p.p.)			Change 2021-2019 (p.p.)		
	indirect taxes in GDP	indirect taxes in consumption	share of consumption in GDP	indirect taxes in GDP	indirect taxes in consumption	share of consumption in GDP
EU-27	0,4	0,8	-0,9	0,1	0,3	-0,6
BE	0,4	0,8	-1,0	0,1	0,5	-1,4
BG	-0,2	-0,1	-0,5	-0,4	-0,9	1,5
CZ	0,1	0,3	-0,2	-0,3	-0,6	0,4
DK	-0,2	0,0	-1,1	-0,1	0,3	-1,2
DE	0,7	1,2	-0,9	0,3	0,5	-0,8
EE	0,0	0,7	-2,5	-0,9	-0,8	-1,7
IE	0,5	2,3	-1,9	-0,8	0,5	-5,4
EL	0,4	1,1	-3,2	-0,4	-0,5	0,3
ES	0,8	1,1	-0,5	0,7	0,6	1,4
FR	-0,3	0,0	-1,3	-0,1	-0,2	0,3
HR	0,3	1,3	-3,2	-0,7	-1,6	2,1
IT	0,8	1,3	-1,1	0,2	0,4	-0,8
CY	0,9	1,7	-2,4	-0,3	-0,3	-0,2
LV	-0,6	-0,9	0,6	-0,7	-0,8	0,0
LT	0,3	0,6	-0,9	0,5	0,9	-1,2
LU			-1,1			-3,2
HU	-0,4	0,0	-1,6	-0,3	-0,4	-0,1
MT	0,1	0,7	-2,1	-0,7	-1,5	1,3
NL	0,0	0,0	0,1	0,3	0,4	0,2
AT	0,3	0,3	0,3	0,0	-0,1	0,5
PL	1,2	1,8	-0,5	1,4	2,0	-0,7
PT	0,5	0,8	-0,7	0,1	-0,2	1,3
RO	0,5	0,6	0,0	0,2	0,3	-0,1
SI	0,5	0,4	1,0	-0,7	-1,2	1,0
SK	0,2	0,2	0,3	0,2	-0,3	2,8
FI	-0,1	-0,2	0,1	-0,2	-0,2	-0,3
SE	0,1	0,4	-0,6	-0,3	-0,1	-0,9
B&H	0,6	1,7	-4,8	-0,6	0,2	-3,8

Source: The parameters for EU-27 are the author's calculation based on data from the Eurostat database (data withdrawn in November 2022). The parameters for B&H are the author's calculation based on ITA and BHAS data.

## 7. Findings

- i. The share of indirect taxes in GDP is at a much higher level in B&H compared to the EU-27, and the higher share of consumption in GDP is "responsible" for this, while the share of indirect taxes in consumption is at approximately the same level. Differences in the shares of consumption in GDP originate from differences in the shares of private consumption in GDP.
- ii. The growth of indirect taxes in GDP of B&H in 2021 compared to the previous year (0.6 p.p.) was slightly higher than in the EU-27 (0.4 p.p.), due to a higher growth in the share of indirect taxes in consumption, despite a much higher decline in the share of consumption in GDP in B&H.
- iii. Changes in the share of indirect taxes in GDP in 2021 compared to the pre-crisis year 2019 went in opposite directions in B&H and EU-27. In Bosnia and Herzegovina, this share decreased by 0.6 p.p., while in the EU it slightly increased by 0.1 p.p. In the same period, in both cases (EU and B&H), shares of indirect taxes in consumption increased, while shares of consumption in GDP decreased.
- iv. Change in the share of indirect taxes in GDP in 2021 compared to the previous year was quite different among EU-27 member states. A decline in the share of indirect taxes in GDP was recorded in six member states; two states had stagnation in the share of indirect taxes in GDP, while the other states (for which data were available) recorded growth. Member states that recorded the largest increase in the share of indirect taxes in GDP in 2021 compared to the previous year were: Poland, Cyprus, Spain, Italy and Germany. The increase in the share of indirect taxes in GDP in all five member states was the cumulative result of increase in the share of revenue from indirect taxes in consumption and decline in the share of consumption in GDP. The above-mentioned five member states are also the countries that achieved a higher growth in the share of indirect taxes in GDP compared to the achieved growth of that share in B&H in 2021. On the other hand, Latvia, the member state that achieved the highest decrease in the share of indirect taxes in GDP in 2021 compared to the previous year, recorded such a trend due to decrease in the share of indirect taxes in consumption and increase in the share of consumption in GDP.
- v. Change in the share of indirect taxes in GDP in 2021 compared to 2019 was also quite different among EU-27 member states. Fifteen member states recorded a decline in the share of indirect taxes in GDP in the mentioned period, one member state a stagnation, and ten member states an increase. Member states that recorded the largest increase in the share of indirect taxes in GDP in 2021 compared to 2019 were Poland and Spain. In Poland, the increase in the share of indirect taxes in GDP in the mentioned period was the cumulative result of increase in the share of revenues from indirect taxes in consumption and decrease in the share of consumption in GDP, while in Spain it was the result of the growth of both mentioned components. Estonia was the state that achieved the highest decline in the share of indirect taxes in GDP in 2021 compared to 2019, and this trend was achieved due to the decline of both components: share of indirect taxes in consumption and the share of consumption in GDP.

## Analysis of the allocation of revenues from indirect taxes for the 2022 – movement and structure

(Author: Mirjana Popović, Expert Advisor - Macroeconomists)

### Summary

The analysis of the allocation of revenues from indirect taxes for the 2022 is a continuation of the analysis published in previous issues of the Department's *bulletin*<sup>17</sup>. The analysis presents trends in the allocation of revenues from indirect taxes in Bosnia and Herzegovina (hereinafter: BiH) for the period 2006-2022<sup>18</sup> shown on an annual basis. The focus of the analysis is the allocation system according to the vertical structure, in accordance with the prescribed methodology and allocation procedure.

In the given period, the analysis included three shocks: the first in 2009 as a consequence of the global economic and financial crisis, the second in 2020 as a consequence of the outbreak of the Covid-19 pandemic, which had a significant impact on the reduction of revenues from indirect taxes intended for allocation while the third shock occurred in 2022, caused by galloping inflation at the global level, and as a result had a significant increase in revenues for allocation.

*Due to the great significance of the consequences of the second and third shock, the focus of the analysis of the allocation of revenues from indirect taxes covers the period 2019-2022. Due to the length of the time series data and trends in revenues that are the subject of analysis, it also includes the comparability of the last with the first annual data. In accordance with the above, the trend of allocation of revenues from indirect taxes for 2022 was analyzed with allocation for:*

- 2021 (the year after the outbreak of the Covid-19 pandemic)
- 2020 (the year marked by the emergence of the Covid-19 pandemic)
- 2019 (the year before the outbreak of the Covid-19 pandemic)
- 2006 (initial year, and the year before the appearance of the first and second shock)

*Also, the analysis presents the allocation of highway toll revenue for the period 2009-2022 with a focus on the allocation of these revenues for the 2022 in relation to the allocation for the 2021, 2020, 2019 and 2017 (which represents the year before the changes in the legal regulations).*

## 1. Trends in the allocation of revenues from indirect taxes in the period 2006-2022

### 1.1. Allocation of revenues from indirect taxes

#### 1.1.1. Allocation of gross revenues to users

Gross revenues from indirect taxes are total revenues collected on a single account<sup>19</sup> intended for refunds (which have priority during allocation), allocation to the institutions of BiH, the Federation of BiH, the Republic of Srpska and Brčko District. The total amount of funds intended for allocation to the entities and Brčko District includes the amount intended for the financing of external debt.

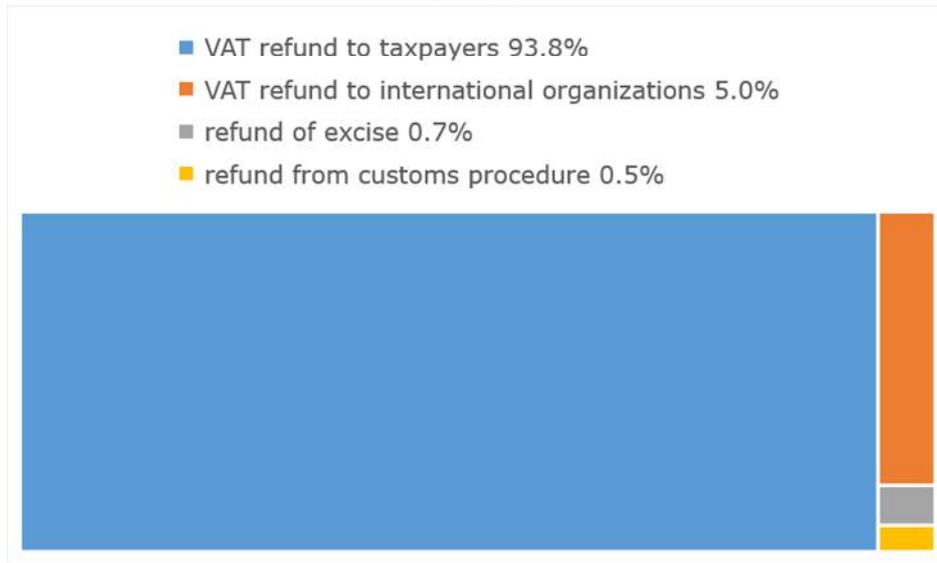
Chart 1 shows the share in the structure of refunds in 2022.

<sup>17</sup> More about the system of allocation of indirect taxes in BiH in: Popović, M. (2019). "Analysis of the allocation of revenues from indirect taxes for the period 2006-2018 - trends and structure". OMA Bulletin no. 168/169.

<sup>18</sup> With the exception of the analysis of revenue from dedicated tolls, which refers to the period 2009-2022.

<sup>19</sup> VAT, customs, excise, toll 0.15 BAM

Chart 1.



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

The largest allocation in the refund structure in 2022 of 98.8% refers to the total VAT refund, of which 93.8% refers to the VAT refund to taxpayers who, according to their VAT returns, are entitled to a refund, while 5.0% refers to the refund of VAT to international organizations. A significantly smaller allocation in the total refund of 0.7% refers to the refund of excise duty, while the allocation of 0.5% refers to the refund based on decisions from the customs procedure.

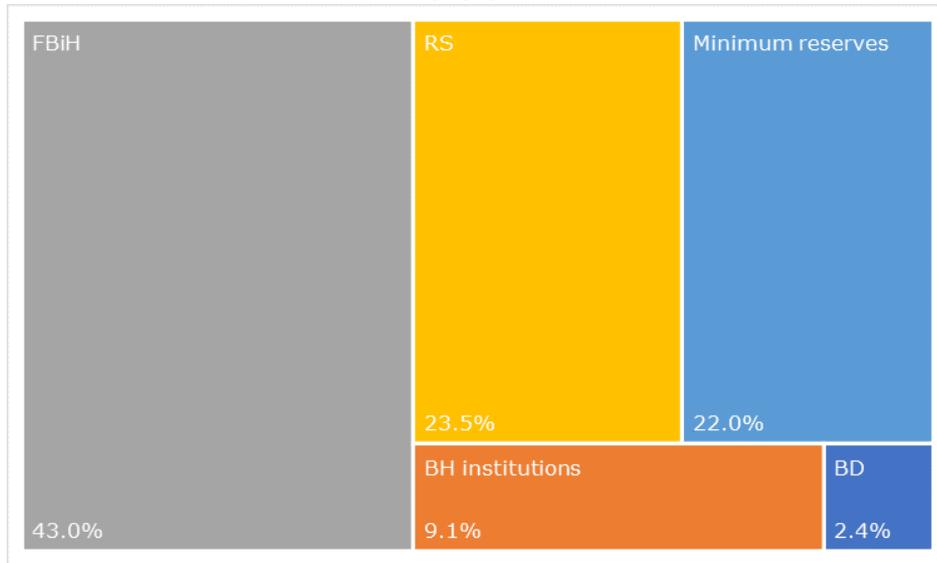
After the refunds are made, the remaining amount of total collected revenues is reduced by the amount intended for minimum reserves. The share intended for minimum reserves in the total revenues remaining after the refund is 22.0% in 2022 (charts 2 and 3).

After the revenues intended for minimum reserves, the corresponding fixed amount of revenues intended for the financing of BH institutions is allocated and remitted. It includes 9.1% of the total share in revenues from indirect taxes in 2022 (charts 2 and 3).

The remaining amount after deducting the amount for minimum reserves and the amount belonging to the budget of BH institutions represents the amount for allocation to the entities and Brčko District, which includes the amount intended for financing the external debt (chart 2).

Chart 2 shows the participation in the allocation of revenues for the Federation of BiH, for the Republic of Srpska and for Brčko District, including the amount for financing external debt, as well as the participation in the allocation of revenues intended for minimum reserves and financing of BH institutions.

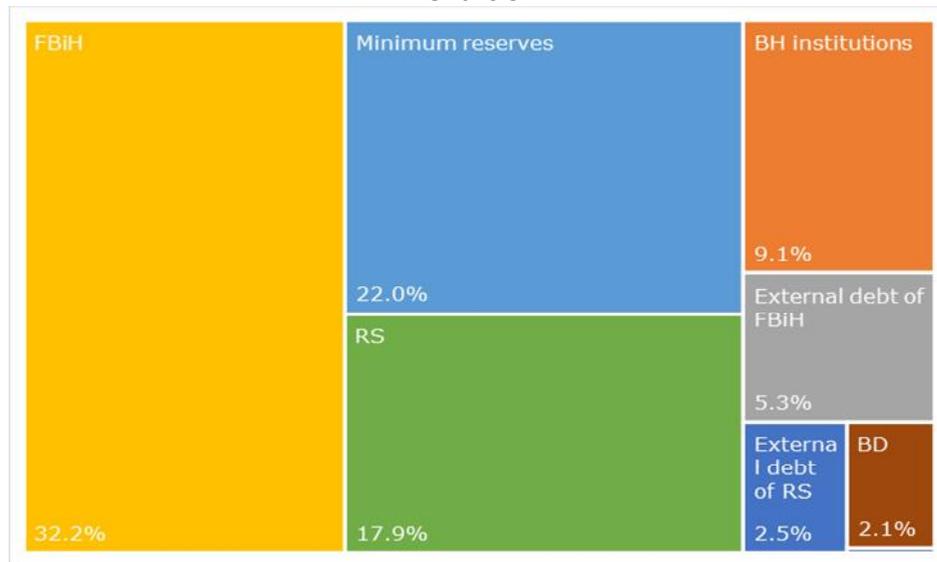
Chart 2.



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

Chart 3 shows the participation in the allocation of revenues to the entities and Brčko District after the allocation of a part of the funds related to the financing of the external debt. Chart also shows the participation in the allocation of revenues intended for the financing of the external debt of the entities and Brčko District, and the participation in the allocation of revenues intended for minimum reserves and financing of BH institutions.

Chart 3.



Note: ■ External debt of BD 0.1%

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

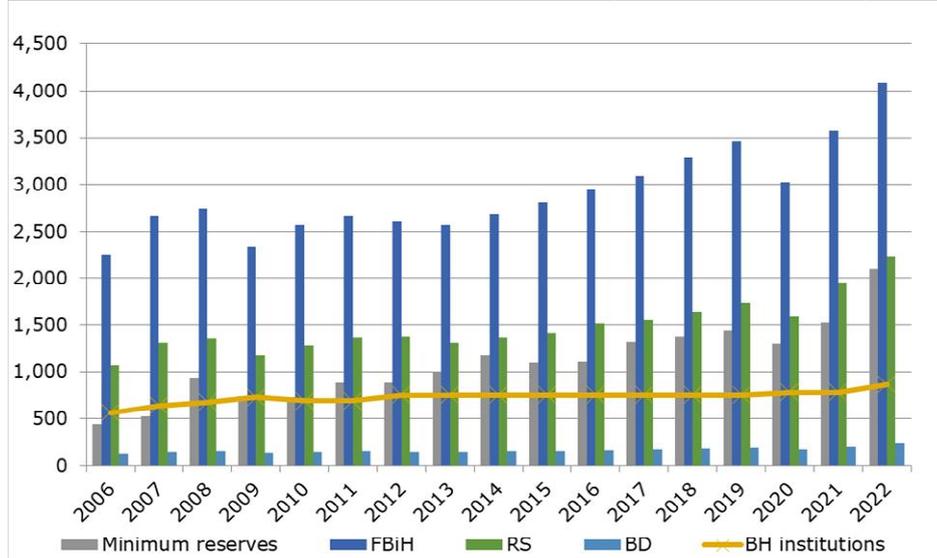
The allocation to the entities is carried out according to predetermined allocation coefficients on a quarterly level<sup>20</sup>, while the coefficient for allocation to Brčko District is fixed<sup>21</sup>.

<sup>20</sup> The ratio of the amount of final consumption stated in the VAT refunds of taxpayers in the territory of a given entity, or a given user of revenues, and the amount of final consumption stated in VAT refunds in the entire territory of BiH.

<sup>21</sup> Given that the representative of Brčko District has the status of an observer in the Governing Board of the ITA, and does not participate in the decision-making on the allocation of revenues from indirect taxes from the single account by voting,

Chart 4 shows the allocation of revenues from indirect taxes for the period 2006-2022, in millions of BAM<sup>22</sup>.

Chart 4. Allocation of revenues from indirect taxes for the period 2006-2022 (in millions of BAM)



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

Compared to 2021, the largest increase in 2022 was achieved by the amount allocated for minimum reserves 37.6%, while 14.6% more of these revenues was allocated to the Republic of Srpska, 14.3% more to the Federation of BiH, and 14.4% more to Brčko District. Given that the amount intended for financing the institutions of BiH on an annual basis has increased from 780.0 millions of BAM in 2021 to 865.5 millions of BAM on 2022, its allocation increased by 11.0%.

Comparing data from 2022 with data from 2020, 61.6% more revenues from indirect taxes was allocated to minimum reserves, while 40.8% was allocated to the Republic of Srpska, 35.1% to the Federation of BiH, and 37.1% to Brčko District. Since the amount intended for financing BH institutions in 2020 was the same as in 2021, the growth rate in the allocation of these revenues in 2022 compared to 2020 is the same as compared to 2021, 11.0 %.

Compared to annual data before the onset of the Covid-19 shock, in 2022, 45.4% more revenues were allocated to minimum reserves than in 2019. Compared to the same period, the allocation of revenues to the Republic of Srpska is higher by 28.8%, to the Federation of BiH by 18.2%, and to Brčko District by 21.7%. Given that the amount of allocation of revenues from indirect taxes intended for the financing of BH institutions in 2019 was 750.0 millions of BAM, the amount allocated to BH institutions in 2022 is 15.4% higher.

Compared to 2006, the largest growth in 2022 was the allocation amount intended for minimum reserves, which is 372.7% higher. There was also a significant increase in the total allocation to entities and Brčko District in the same period. The amount allocated to the Republic of Srpska is higher by 108.9%, to the Federation of BiH by 81.6%, to Brčko District by 90.4%, while the amount allocated for financing BH institutions is higher by 52.9%.

Table 1 shows the participation in the allocation of revenues from indirect taxes for the period 2006-2022.

the High Representative imposed a fixed coefficient for Brčko District. This system was created in order to protect the fiscal autonomy that Brčko District had before the reform of the indirect taxation system, by decision of June 01, 2007 for minimum of 3.55% or at least 124 millions of BAM per year in absolute terms.

<sup>22</sup> The amount of gross revenue excludes revenues from dedicated tolls.

Banja Luka: Bana Lazarevića, 78 000 Banja Luka, Tel/fax: +387 51 335 350, E-mail: oma@uino.gov.ba  
Sarajevo: Zmaja od Bosne 47b, 71 000 Sarajevo, Tel:+387 33 246 081, Fax:+387 033 246 080, Web: www.oma.uino.gov.ba

Table 1.

in %	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Minimum reserves	10.0	10.0	15.9	14.5	13.5	15.3	15.4	17.3	19.1	17.6	17.1	19.2	19.0	19.0	18.9	19.0	22.0
BH institutions	12.7	12.1	11.5	14.3	12.7	12.0	13.0	13.0	12.3	12.0	11.6	10.9	10.4	9.9	11.4	9.7	9.1
FBiH	50.6	50.5	46.8	45.9	47.5	46.4	45.2	44.5	43.9	45.2	45.6	44.9	45.4	45.7	44.1	44.5	43.0
RS	24.0	24.7	23.2	22.8	23.7	23.7	23.9	22.7	22.2	22.7	23.3	22.6	22.8	22.9	23.1	24.3	23.5
BD	2.7	2.7	2.6	2.5	2.6	2.6	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

Table 2 shows the difference in the participation in the allocation of revenues from indirect taxes in p.p. It is shown for the year of 2022 compared to the years specified for comparison in the purpose of this analysis.

Table 2.

change in p.p.	Index (2022-2021)	Index (2022-2020)	Index (2022-2019)	Index (2022-2006)
Minimum reserves	3.1	3.1	3.0	12.1
BH institutions	-0.6	-2.3	-0.8	-3.6
FBiH	-1.6	-1.2	-2.7	-7.6
RS	-0.8	0.3	0.6	-0.5
BD	-0.1	0.0	-0.1	-0.3

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

Compared to 2021, in 2022 the participation of the institutions of BiH decreased (-0.6 p.p.), the Federation of BiH (-1.6 p.p.), the Republic of Srpska (-0.8 p.p.) and the participation of Brčko District (-0.1 p.p.), while the share in allocation intended for minimum reserves increased (3.1 p.p.).

Compared to 2020, in 2022 the participation of BH institutions (-2.3) and of the Federation of BiH (-1.2 p.p.) is smaller, while the participation in the allocation intended for minimum reserves (3.1 p.p.) and participation in the allocation of the Republic of Srpska (0.3 p.p.) is higher. The participation in the allocation of revenues from indirect taxes of Brčko District in the observed two years is at the same level.

The difference in the allocation by beneficiaries of indirect tax revenues presented in Table 2 in 2022 compared to 2019 shows an increased share in the allocation for minimum reserves (3.0 p.p.) and the Republic of Srpska (0.6 p.p.). It also shows a reduced share in allocation of these revenues of BH institutions (-0.8 p.p.), the Federation of BiH (-2.7 p.p.) and Brčko District (-0.1 p.p.).

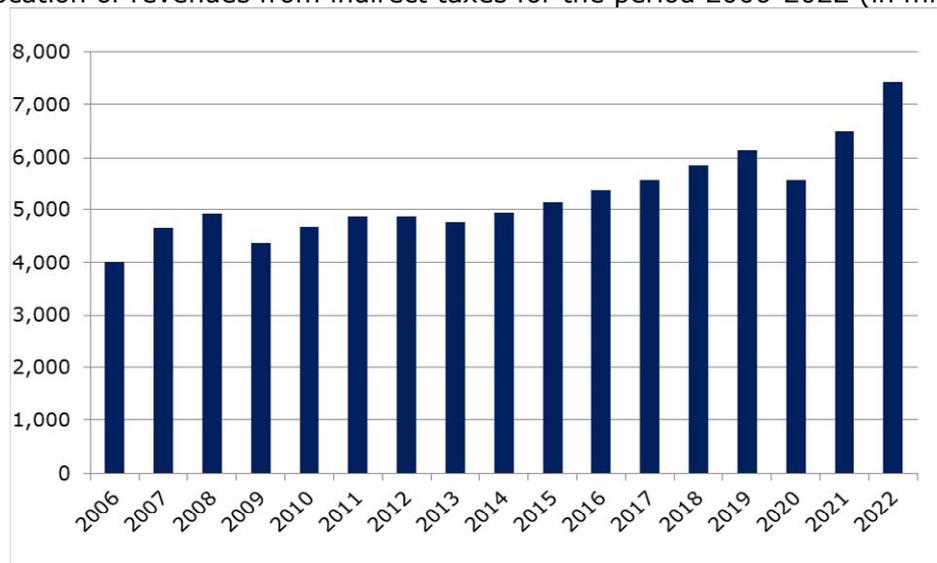
Based on the participation of users in the allocation of revenues from indirect taxes in 2022, compared to the initial period, i.e. 2006, the participation in the allocation intended for the financing of the institutions of BiH decreased (-3.6 p.p.). The participation of the Federation of BiH also decreased (-7.6 p.p.), as well as the participation of the Republic of Srpska (-0.5 p.p.) and Brčko District (-0.3 p.p.) in favor of participation in the allocation for minimum reserves, which was increased (12.1 p.p.).

### 1.1.2. Allocation of net revenues to users

The remaining amount after the allocated part of funds intended for minimum reserves includes the amount of net revenues from indirect taxes that is intended for allocation to beneficiaries - the institutions of BiH, the Federation of BiH, the Republic of Srpska and Brčko District<sup>23</sup>.

Chart 5 shows the total allocated net revenues from indirect taxes for the period 2006-2022, in millions of BAM.

Chart 5. Allocation of revenues from indirect taxes for the period 2006-2022 (in millions of BAM)



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

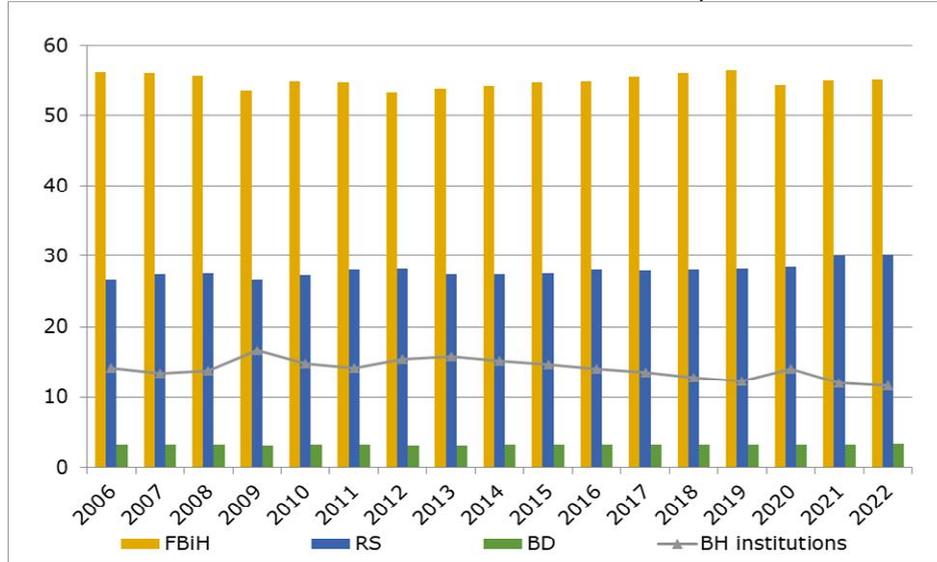
In the observed period, the biggest negative impact on the allocation of revenues from indirect taxes was the occurrence of the global economic and financial crisis that occurred in 2008 in the world, and it affected the decline of total net revenues from indirect taxes in BiH in 2009. The second shock in the observed period caused by the emergence of the Covid-19 pandemic, i.e. measures to combat the spread of the virus, resulted in a significant drop in the allocation of revenues to beneficiaries in 2020. Global inflation in 2022 has led to a significant increase in prices, acceleration of cash flows, and a significant increase in revenues from indirect taxes in the country intended for allocation to users. Thus, the amount of net revenues from indirect taxes allocated to users in 2022 was the highest in the observed period, and the total allocation of these revenues recorded a historical maximum on an annual basis. The amount of total net revenues from indirect taxes intended for allocation to users in 2022 is 14.0% higher compared to 2021, 33.4% higher compared to the year affected by the Covid-19 shock, 2020, by 21.0% higher compared to 2019, and by 85.1% higher compared to the initial observed year, 2006.

Chart 6 shows the participation in the allocation of net revenues from indirect taxes to beneficiaries - the institutions of BiH, the Federation of BiH, the Republic of Srpska and Brčko District<sup>24</sup>, for the period 2006-2022. The chart shows the fluctuation trend with the largest participation of the Federation of BiH in the total allocation of net revenues, followed by the significant participation of the Republic of Srpska in the allocation, as well as by BH institutions and Brčko District.

<sup>23</sup> Including the external debt of the Federation of BiH, the Republic of Srpska and Brčko District

<sup>24</sup> Including the external debt of the Federation of BiH, the Republic of Srpska and Brčko District

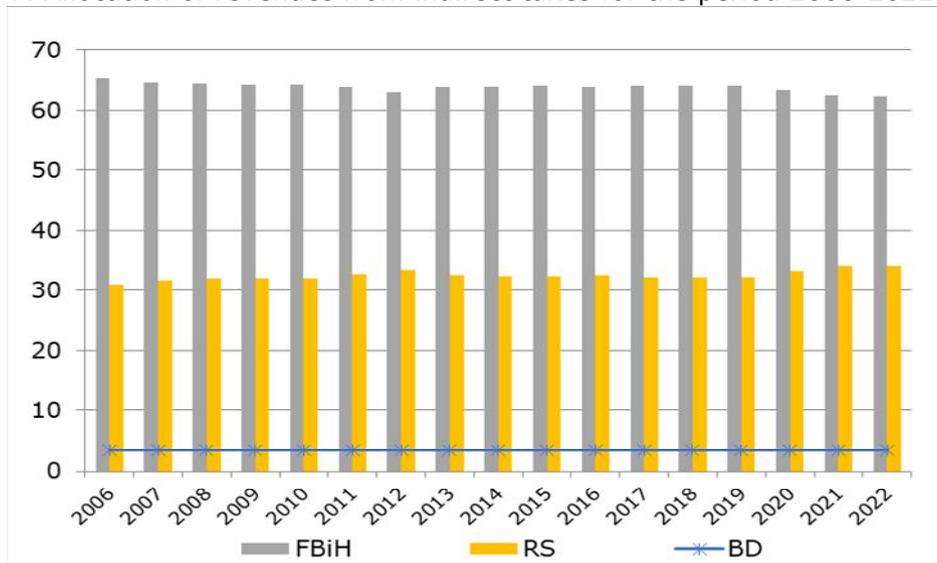
Chart 6. Allocation of revenues from indirect taxes for the period 2006-2022 (in %)



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

Chart 7 shows the participation in the allocation of net revenues from indirect taxes to the entities and Brčko District<sup>25</sup> in the period 2006-2022 after the allocation of the corresponding part to the institutions of BiH.

Chart 7. Allocation of revenues from indirect taxes for the period 2006-2022 (in %)



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

The dynamics of the entity's participation in allocation fluctuates based on allocation coefficients based on final consumption, while the participation of Brčko District is fixed based on a defined allocation coefficient. In the observed period, the Federation of BiH achieved the largest participation in the annual allocation in 2006, and the least in 2022 in favor of the Republic of Srpska.

<sup>25</sup> Including the external debt of the Federation of BiH, the Republic of Srpska and Brčko District

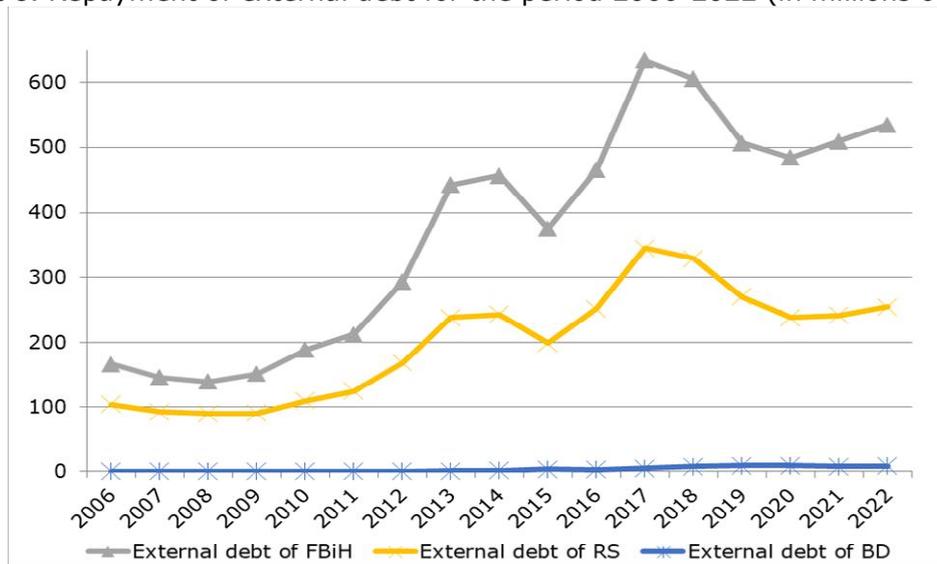
If the annual allocation of net revenues from indirect taxes from 2022 is compared with the annual allocation of these revenues from 2021, the participation of the Federation of BiH is less than 0.1 p.p. in favor of the Republic of Srpska. Also, in 2022, the coefficient of allocation to the Federation of BiH is lower by 0.9 p.p. compared to 2020, compared to 2019 it is lower by 1.9 p.p., while compared to 2006 it is lower by 3.0 p.p. in favor of the Republic of Srpska.

## 2. External debt

After the corresponding funds intended for minimum reserves are allocated from the total collected gross revenues, and after the corresponding amount is allocated for the financing of BH institutions, the amount for financing the external debt is allocated as a priority, and before allocation to the budgets of entities and Brčko District. In accordance with the maturity dynamics, the amount intended for financing the external debt is subtracted from the total funds intended for allocation to the entities and Brčko District. Although the external debt towards foreign creditors is recorded as a liability of BiH, it is a liability of the entities and Brčko District, and on that basis, the amount for its financing is not allocated to the budgets of the entities and Brčko District<sup>26</sup>.

Chart 8 shows the trend in the allocation of revenues from indirect taxes intended for financing external debt in the period 2006-2022, in millions of BAM.

Chart 8. Repayment of external debt for the period 2006-2022 (in millions of BAM)



Source: Data from the Indirect Taxation Authority of BiH, OMA overview

The chart shows the fluctuating trend of the entity's external debt repayment, while the trend of Brčko District's external debt repayment has been slightly increasing in the last few years on an annual basis. The largest repayment of the entity's external debt in the observed period on an annual basis was recorded in 2017, in accordance with previously undertaken international obligations and repayment dynamics.

Table 3 shows the participation of entities and Brčko District in the total allocations of repayment of external debt for the period 2006-2022.

<sup>26</sup> The repayment plan and payment dynamics are determined by the schedule of the Ministry of Finance and Treasury of BiH, while the payment procedure is carried out by the Central Bank as a fiscal agent.

Table 3.

in %	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
External debt of FBiH	61.6	61.1	60.7	62.6	63.4	63.1	63.4	64.9	65.2	65.0	64.7	64.5	64.3	64.5	66.2	67.2	67.1
External debt of RS	38.4	38.9	39.3	37.4	36.6	36.8	36.5	34.9	34.6	34.5	34.9	35.0	34.9	34.4	32.6	31.9	31.9
External debt of BD	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.5	0.4	0.5	0.8	1.1	1.2	0.9	1.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

Table 4 shows the difference in the share of total allocations for the repayment of external debt. It is shown for the 2022 compared to the years specified for comparison in the purpose of this analysis.

Table 4.

change in p.p.	Index (2022-2021)	Index (2022-2020)	Index (2022-2019)	Index (2022-2006)
External debt of FBiH	-0.1	0.9	2.6	5.5
External debt of RS	0.0	-0.7	-2.5	-6.4
External debt of BD	0.0	-0.3	-0.1	1.0

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

The participation of entities and Brčko District in the allocation of revenues from indirect taxes intended for financing the external debt in 2022 is proportional to the allocation at the level of the previous year, 2021. Compared to 2020, the participation of the Federation of BiH in the repayment of external debt is higher (0.9 p.p.), while the participation of the Republic of Srpska (-0.7 p.p.) and Brčko District (-0.3 p.p.) is proportionally smaller. Also, compared to 2019, the participation of the Federation of BiH is higher (2.6 p.p.), while the participation of the Republic of Srpska (-2.5 p.p.) and the participation of Brčko District (-0.1 p.p.) in the repayment of external debt is smaller. On the basis of participation in the allocation of revenues intended for the repayment of external debt in 2022 compared to the initial period from the analysis, i.e. 2006, the participation of the Federation of BiH (5.5 p.p.) and Brčko District (1.0 p.p.) is higher, while the participation of the Republic of Srpska is lower (-6.4 p.p.).

### 3. Revenues from tolls for highways

Toll revenues are collected on a separate sub-account within the Single Account<sup>27</sup>, and their allocation is done in accordance with the Law on Payments to the Single Account and Allocation of Revenues. Of the total revenue collected, 10% remains on the sub-account of the Single Account and serves to settle the revenue after determining the final allocation methodology, while the remaining 90% is divided between the entities and Brčko District according to the established percentages – the Federation of BiH 59%, the Republic of Srpska 39%, Brčko District 2%<sup>28</sup>. The amount of road tax per liter of derivatives sold on the BH market is in the period July 1, 2009 - January 31, 2018 amounted to 0.10 BAM<sup>29</sup>, while in the period February 01, 2018 – December 31, 2022 it is 0.25 BAM<sup>30</sup>.

Chart 10 shows the amount that, according to the prescribed methodology and the valid Decisions, was allocated in the period July 01, 2009 – December 31, 2022, in millions of BAM.

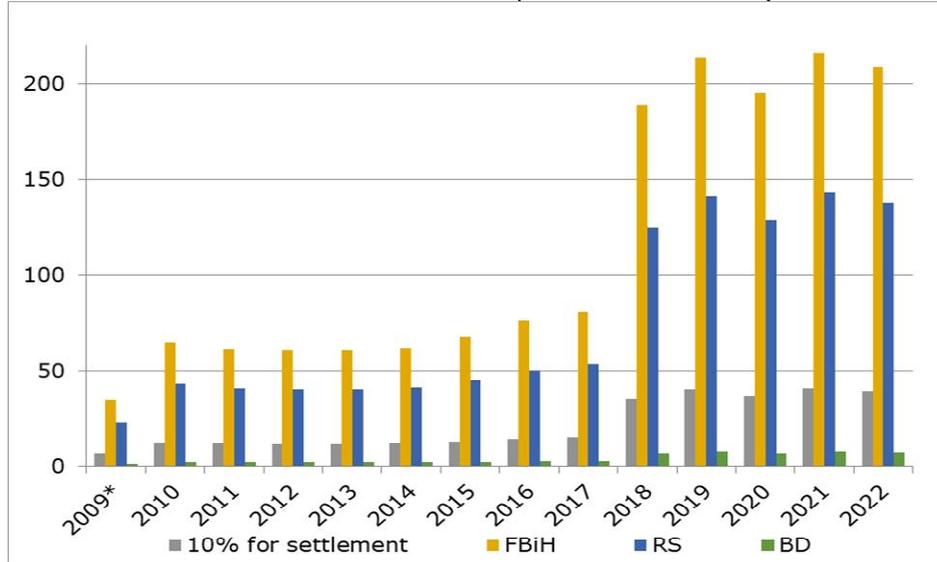
<sup>27</sup> Opened at the Central Bank of BiH

<sup>28</sup> In accordance with the Decision on the temporary allocation of toll revenues for highways, "Official Gazette of BiH", No. 102/09 and the Decision on the temporary allocation of toll revenues for the construction of highways and the construction and reconstruction of other roads, "Official Gazette of BiH", no. 50/18

<sup>29</sup> Law on Excise Taxes in BiH, "Official Gazette of BiH", No. 49/09

<sup>30</sup> Law on Amendments to the Law on Excise Taxes in BiH, "Official Gazette of BiH", No. 91/17

Chart 10. Allocation of toll revenues for the period 2006-2022 (in millions of BAM)



Note: \* (period from July 1, 2009 to December 31, 2009)

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

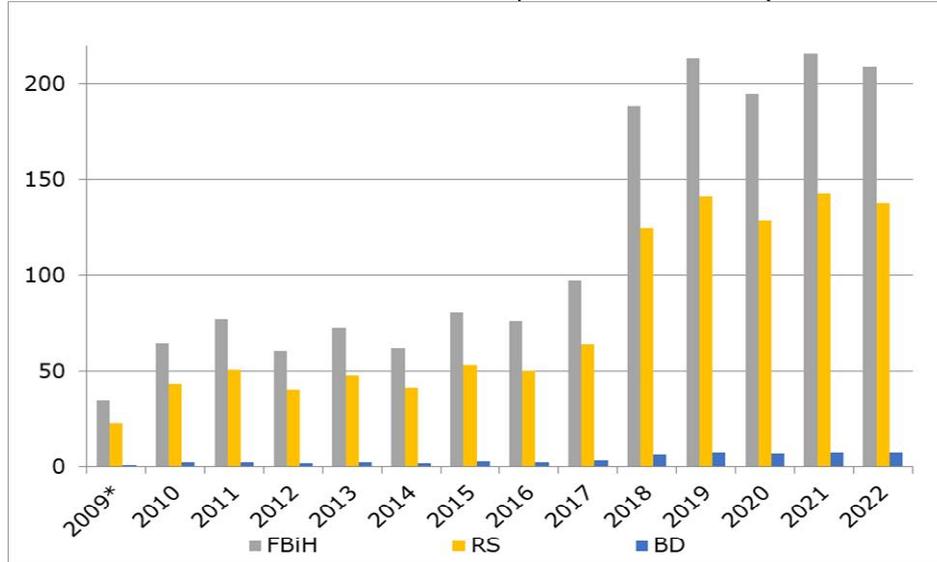
The amount of 10%, according to the valid Decisions is kept on the sub-account of the Single Account and is used to settle the revenues after determining the final allocation methodology. This amount is accumulated until the decision of the Governing Board of the Indirect Taxation Authority on the temporary allocation of toll revenue for highways that remained in the sub-account of the Single Account is made. Accordingly, in the observed period<sup>31</sup> a part of the accumulated amount intended for settlement was allocated from the sub-account of the Single Account, in 2011, 2013, 2015 and 2017<sup>32</sup>.

Chart 11 shows the corresponding amount allocated to the entities and Brčko District during the regular allocation, increased by the accumulated amount allocated in accordance with the Decisions, in millions of BAM.

<sup>31</sup> July 01, 2009 – December 31, 2022

<sup>32</sup> Decisions on the temporary allocation of toll revenues for highways that have been accumulated on a sub-account of a Single Account; "Official Gazette of BiH", no. 83/11, 62/13, 67/15, 45/17. 83/11, 62/13, 67/15, 45/17

Chart 11. Allocation of toll revenues for the period 2006-2022 (in millions of BAM)



Note: \* (period from July 1, 2009 to December 31, 2009)

Source: Data from the Indirect Taxation Authority of BiH, OMA overview

The movement of allocation shown in the chart is covered by legal changes in the sense of the amount of revenue from dedicated tolls. Given that the Law was not in force for all twelve months of 2018<sup>33</sup>, the full effect of the amendment to the Law on an annual basis is visible from 2019, while the toll revenues collected in 2009 refer to a period of six months. In the period July 01, 2009 – December 31, 2017, oscillations in the allocation of toll revenues on an annual basis occur in the years covered by additional allocations in accordance with the Decisions, and the highest total amount for the allocation of toll revenues for highways on an annual basis was recorded in 2017. Since the beginning of the implementation of the legal changes<sup>34</sup>, the amount of allocated revenue from tolls for highways on an annual basis is significantly higher compared to previous years, and it is the highest in 2021.

The total amount of toll revenues in 2022 is 3.4% lower compared to the previous year, while compared to 2020, the total amount allocated on the same basis is 6.8% higher. Compared to 2019, a total of 2.3% less toll revenues were allocated in 2022. Compared to 2017, i.e. compared to the year before the legal changes, 117.2% more of these revenues were allocated in 2022.

Archive of Bulletins:

[http://www.oma.uino.gov.ba/04\\_objasnjenja.asp?l=e](http://www.oma.uino.gov.ba/04_objasnjenja.asp?l=e)

<sup>33</sup> Beginning of application February 1, 2018

<sup>34</sup> From February 01, 2018