

COMPARATIVE ANALYSIS REGARDING THE SIZE OF LABOR TAXATION IN ROMANIA AND SEVERAL COUNTRIES IN THE REGION

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***Abstract:** The purpose of our work is to realize a comparative analysis of labor taxation in Romania and some of the countries in the region (Bulgaria, Czech Republic, Poland) in the period 2008-2021, by two indicators, the Implicit Tax Rate (ITR) and the Tax indicator wedge. The objectives pursued are: analysis of labor taxation in the European Union in 2021, by using ITR, analysis of labor taxation in the European Union in 2021, by using the tax wedge indicator, and making a comparison of labor taxation in Romania and the countries in the region mentioned above. We considered the share of tax revenues from labor taxation, in total tax revenues and in GDP, Taxation of labor revenues, paid by employees and employers, % in GDP, Tax revenues from social contributions paid by employers and employees in the period 2008-2021, % in GDP. The statistical data used come from the Taxation Trends 2022 report (European Commission), OECD, as well as data from the tax guide developed by Mazars for the year 2022.*

***Keywords:** tax revenues from labor taxation, personal income tax, social contributions, standard employment contract, implicit tax rate, tax wedge.*

***Jel Classification:** H24, H 3, J 32.*

1. Introduction

Taxation in the field of labor influences both the decision of each natural person to engage and with what norm (labour supply), as well as the employer's decision to make hires, as they increase the cost of labor (labour demand).

In our paper we analyze the labor taxation in the European Union in the period 2008-2021, through two indicators, the Implicit Tax Rate (ITR), calculated as the sum of the income tax and the social contributions of the employee and the employer, respectively the Tax wedge indicator (The fiscal component of the labor cost), namely the sum of personal income tax, employee and employer social security contributions plus any payroll tax minus cash transfers expressed as a percentage of labor costs. The elements that make up the fiscal component of the labor cost (tax wedge) are: Personal income tax, Social contributions payable by the employer, Social insurance contributions paid by the employee, Social benefits (Masca, Fabian).

The objectives pursued are: analysis of labor taxation in the European Union in 2021, by using ITR, analysis of labor taxation in the European Union in 2021, by using the tax wedge indicator, making a comparison of labor taxation in Romania and three countries in the region, respectively Bulgaria, Czech Republic and Poland. We considered the share of tax revenues from labor taxation, in total tax revenues, and in GDP, Taxation of labor revenues, paid by employees and employers, % in GDP, Tax revenues from social contributions paid by employers and employees in the period 2008-2021, % in GDP, labor taxation analysis in the region applied to the standard labor contract.

2. Revenues from labor taxation at EU 27 level in 2021, by using the Implicit Tax Rate (ITR)

Overall, the share of income and employment taxes is falling; however, their magnitude shows significant differences in the observed countries; some countries have a flat income tax (Bulgaria, Hungary, Romania), while others have progressive tax rates (Austria, Germany, Slovenia, Croatia, Slovakia). There are also countries where there has been an

increase in the upper tax thresholds, which has led to an overall reduction in personal income tax obligations (Latvia, Lithuania). In Slovenia, the top tax rate was reduced from January 2022 (EC, 2022).

The costs of taxes and social contributions borne by employers represent, on average, 15% of gross wages in the region, but there is a significant difference of more than 30 pp between the lowest employer burdens (e.g. Lithuania, Romania- less than 5%) and the highest employer contributions (eg Czech Republic, Poland, Slovakia - more than 30%). This highlights that the systems are different and that some jurisdictions prefer to levy payroll taxes on employees rather than employers (Mazars, 2022).

The salary level in the member states must also be discussed; while the minimum wage is approximately 400 – 600 euro in Bulgaria, the Czech Republic, Slovakia, Hungary, Poland, Romania, in countries such as Slovenia it is 1.000 euro, Germany and Austria, approximately 1.700 euro.

EU-27 revenues from labor taxation reached 20,9% of GDP in 2021, 0,4 pp lower than in 2020, the year in which they reached the highest point in the analyzed period. The share of labor taxes in total taxation also decreased to 51,4% in 2021 (-1,9 pp), namely the lowest value recorded in the last decade. The year 2021 is the year of recovery after the crisis caused by the covid 19 virus, and the measures adopted by the authorities to help individuals and legal entities, especially the vulnerable ones, have withdrawn or been reduced and average salaries have increased, while a number of countries have also implemented significant labor tax reforms. It should be mentioned that this slight decrease in tax revenues from labor taxation is explained by the decrease in income tax rates in some countries or a low level of collection, as well as certain tax exemptions/facilities granted to certain categories of taxpayers.

Regarding the *personal income, the top average personal income tax (PIT) rate* in the EU-27 did not change during 2021. The top PIT rate at the end of 2021 for the EU-27 (simple average) was 38,8 %. The rate fell sharply from 44,8% in 2000 to 37,9% in 2011. Between 2011 and 2013, the top average rate increased to around 39% and has remained largely unchanged since 2013. The average rate for the euro area rose slightly by 0,1 pp to 42,9% in 2021. The top PIT rate varies substantially across the EU, from 10% in Bulgaria to over 55% in Denmark.

In the countries of the region (RO, CZ, BG, PL), we notice that the income tax rate had an oscillating trend in the analyzed interval (decrease in the interval 2004-2009, after that the trajectory is relatively constant). It should be noted that Poland recorded a decrease in the rate from 40% in 2000 to 32% (- 8 pp), Romania, from 40% in 2000 to 10% in 2018 (constant since then), Bulgaria, similar to Romania, and the Czech Republic, from 32% in 2000, to 15% in 2020, and currently 23%.

In 2021, the statutory personal income tax rates varied by region (Figure 1). While Romania, Bulgaria, Hungary still apply flat tax regimes (single rate), other countries, such as the Czech Republic, Austria, Germany, Slovenia, Croatia and Slovakia, use progressive tax regimes.

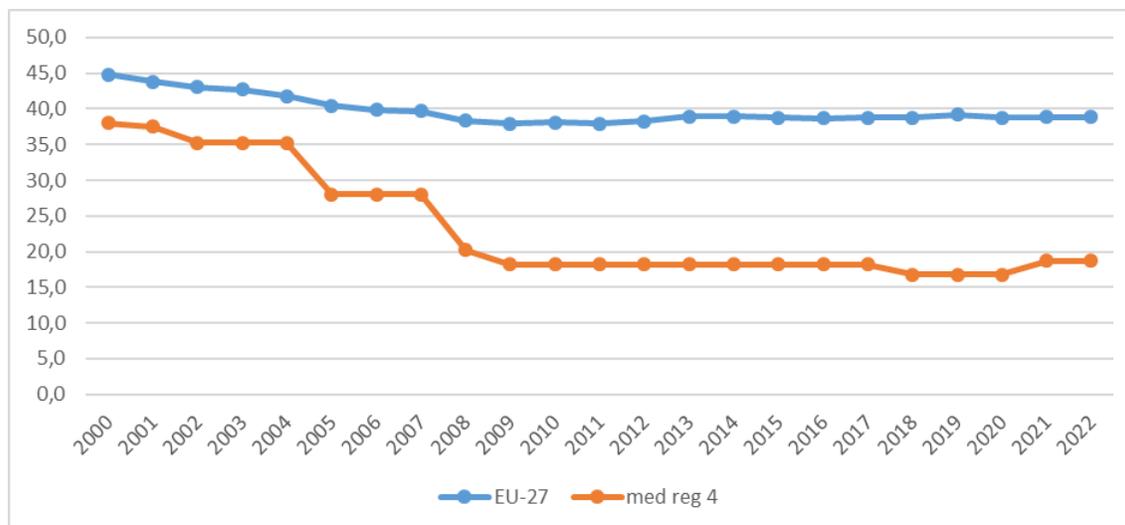


Figure 1. Evolution of the higher rate of personal income tax in the period 2000-2022 (simple averages, %)

Source: Taxation Trends report, 2022, https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

In Romania and in some countries in the region, such as Bulgaria and Hungary, we observe that tax regimes with a single reduced tax rate are applied (10%, 15%, for the first two, and for Romania, 16% until 2017, from 2018 becoming 10%). Poland currently taxes personal income at a rate of 32% (from 40% in 2008), and Hungary reduced its tax rate from 40% in 2008 to 15% starting with 2017.

In Austria, in 2021 the personal income tax rate for the first tax bracket was also reduced from 25% to 20%, Latvia reduced the top tax rate from 31,4% to 31% in 2021, Spain increased the income tax by 2 percentage points for those with an annual income of more than €300.000 (\$331.485).

The share of revenues from personal income taxation reveals a synchronization between the level of the tax rate and the level of budget revenues; thus in countries where the tax rate is high (Denmark, Austria, Finland), and the related tax revenues are high. In most developed countries in the EU27, the share of income in GDP is higher than in 2008, an upward trend, starting from 2015-2016.

We observe that in 2021, at the level of the countries in the region, compared to 2020, a lower level of these tax revenues was recorded, only Romania has the constant value (2,4% of GDP); Hungary and Poland have values above the regional average (3,8% of GDP). In Romania, the collection level is the lowest in the European Union, two of the causes being the categories of taxpayers exempt from this tax, as well as the reduced tax rate (we refer, among others, to the construction and IT sectors, which do not pay tax on income, as well as the legal reduced income tax rate of 10%).

However, since the income tax is based on the single rate of 10%, the tax system in Romania is competitive for foreign citizens who become Romanian tax residents, but remain "enrolled" in the social contribution system of other EU member states that apply a ceiling of the tax base or a specific progressive system.

In time, EU countries have sought to increase their tax attractiveness in order to obtain additional revenues and attract investment, while avoiding the erosion of their domestic tax base, in order to protect their resources (for example, regarding the taxation of personal

income, the principle of the specific tax regime applicable to the incomes of new tax residents, as well as to the large assets of newly domiciled taxpayers, is applied).

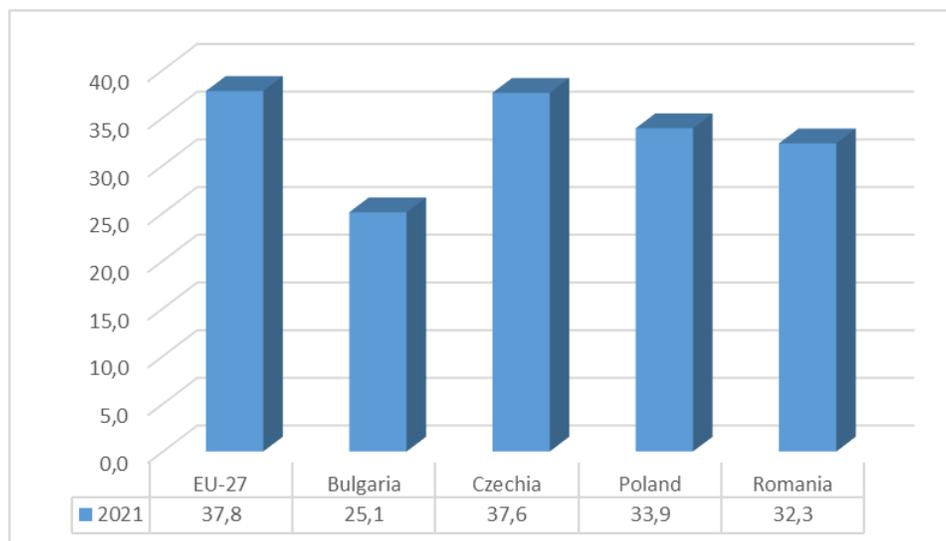


Figure 2. Implicit labor tax rate in the EU 27 and the region in 2021

Source: Taxation Trends 2022 report,

https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

The ITR labor force for the EU-27 was 37,8% in 2021, with no major changes since 2013. The level of the labor force ITR varied substantially across Member States in 2021; The highest ITRs were found in Italy (42,9 %), Greece (40,9 %) and Austria (41,3 %), and the lowest in Malta (24,2 %) and Bulgaria (25,1 %).

Looking at the region, we notice that the Czech Republic is approaching the EU 27 level, Romania has an ITR of 32,3%, and Bulgaria has the lowest level in the EU 27, at 25,1% respectively.

Social security contributions and payroll taxes account for two-thirds of the ITR for labor taxes.

In most Member States, social security contributions represent a much larger share of labor taxes than PIT. On average, in the EU-27, two-thirds of the global ITR for labor consists of social contributions and payroll taxes paid by employees and employers. In Denmark, where social contributions are very low, PIT represents 96% of ITR for work. In Ireland and Malta, PIT is also a relatively large component of ITR (61% and 53% respectively). In Romania, on the other hand, PIT represents only 13% of ITR, with 79% of the contribution made from employees' social contributions.

While the EU average did not change significantly between 2020 and 2021, the changes in each country were varied and remarkable. Labor ITR decreased in most Member States. There was a sharp decline in the Czech Republic (2,7 pp), followed by Hungary (2,3 pp) and Croatia (0,9 pp). On the other hand, ITR increased significantly in Cyprus (2 pp), Ireland and Malta (both 1,7 pp) and Greece (1,1 pp). In Spain, labor taxes rose while employee compensation fell.

In the region, Romania stands out due to the high level of employee contributions, compared to the particularly low ones of employers and income tax. The situation differs in Bulgaria, where employee contributions are lower than those paid by employers, similarly in the Czech Republic. Poland has employee contributions slightly higher than those borne by employers.

3. Labor taxation by Tax wedge indicator in 2021

The Tax wedge indicator explores the burden of taxation on different household categories (such as single, couple, family) and income levels (for example, workers on 50%, 67% and 100% of the average wage).

The average tax wedge in 2021 for workers with 50% of average gross earnings was 31,9% in the EU-27, 0.4 pp more than in 2020 and 2,8 pp compared to 2011 (OECD, 2022).

In 2021, tax rates for low-income earners were above 40% in Hungary and Germany, and below 20% in Cyprus. In France, there is a considerable gap (almost 21 pp) between tax rates of 50% and 67% of average earnings. Behind this gap is a significant increase in social security contributions by the employer and a decrease in family allowances.

In 2021, only eight Member States recorded an annual decrease in the Tax wedge indicator for low-income single people. The Czech Republic recorded the largest annual decreases (4.4 pp). There were some significant year-to-year increases, notably in Portugal, 7 pp, followed by France, 4.3 pp.

At international level (OECD), in 2021 single workers on an average wage paid around one third of their wages in taxes. In most countries, families had lower tax burdens than single workers without children earning the same income.

Changes to income tax systems have a direct impact on the tax burden on labour: some countries have made substantial changes to income and payroll taxes over the past two decades. Hungary, the OECD/EU country with the highest tax burden on labor in 2000, recorded the most notable decrease in the Tax wedge, from 54,7% to 43,2% in 2021. This is partly due to the introduction of a single tax on income, which reduced the income tax burden in relation to total labor costs. In addition, Hungary reduced its payroll taxes relative to total labor costs. Denmark, Sweden and Lithuania have also substantially reduced their tax burden on labour, with a reduction between 6 and 8,1 pp each.

In Europe, although the level of the Tax wedge is higher, some remarks should be made. Belgium has the highest tax burden on labor at 52,6% (also the highest of any OECD country), followed by Germany and Austria at 48,1% and 47,8% respectively. At the opposite pole, Switzerland had the lowest tax burden at 22,8%.

It is important to note that all European countries provide some tax relief for families with children, usually through lower income taxes. In Germany, a single worker earning the nation's median wage faces a tax burden of 48,1%. A family with two children and one earning adult would face a tax burden of 32,7%.

It should be noted that the COVID-19 pandemic has had an effect on the tax burden for the single worker, the single-wage couple with two children and the single-parent household in 2020 and 2021; the Tax wedge indicator saw sharp declines across the OECD in 2020 due to measures implemented in response to COVID-19. However, they have returned in most countries in 2021 as many of these measures have been reduced, average wages have increased in all but two countries, and new reforms to labor taxation have been introduced.

Across the OECD, countries have largely chosen to provide support to households and businesses outside the labor tax system, mostly through the provision of cash, enhanced or one-off benefits, with a focus on supporting families with children.

4. Comparative analysis of labor taxation in the region - Romania, Bulgaria, Czech Republic, Poland

According to Figure 3, the *revenues from labor taxation as a share of GDP*, in the region, in the period 2008-2021, are much lower than the EU average (in 2021, the regional average of 14,1 vs the EU 27 average of 20,9% GDP). Analyzed by country, an oscillating

trend prevails in Romania, mainly decreasing, in 2021 reaching a level of 12,1% of GDP, compared to 2008 (11%). Compared to the previous year, there was a decrease of 0,7 pp.

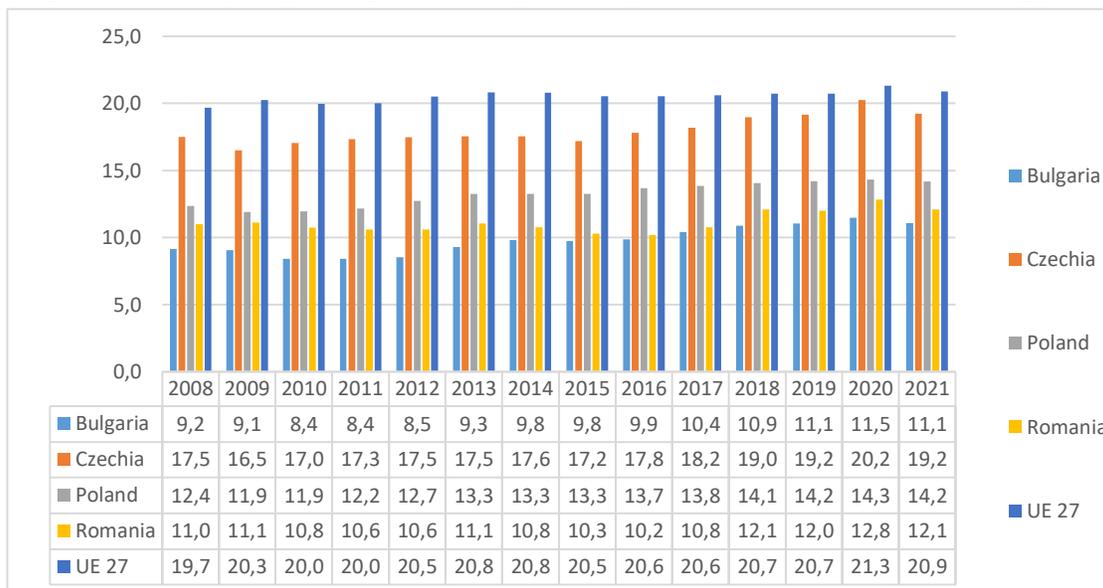


Figure 3. Labor taxation, % GDP, in the period 2008-2021 in Romania, Bulgaria, the Czech Republic, Poland and the EU 27 average

Source: Own processing based on data

https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

In the other countries in the region, the situation is as follows. In Bulgaria, in the years 2008-2021, revenues from labor taxation (% GDP) registered an upward trend, except for the years 2008-2011 (in 2008 Bulgaria switched to the single rate of 10%, therefore tax revenues decreased). In 2021, labor income reached a value of 11,1% of GDP, 0,4 pp less than the previous year. In the Czech Republic, the share of labor income reached 19,2% of GDP, with 1 pp less than 2020, Poland, a minus of 0,1 pp (14.2% GDP in 2021).

Fiscal revenues from labor taxation, as % of total fiscal revenues (Figure 4), register lower values than the EU-28 average (51,4% of fiscal revenues); for the analyzed countries, the lowest values were recorded in 2021; in the region, Romania is ahead of Poland and Bulgaria (in 2021, 44,6% of total tax revenues, compared to 36% in Bulgaria and 38,5% in Poland).

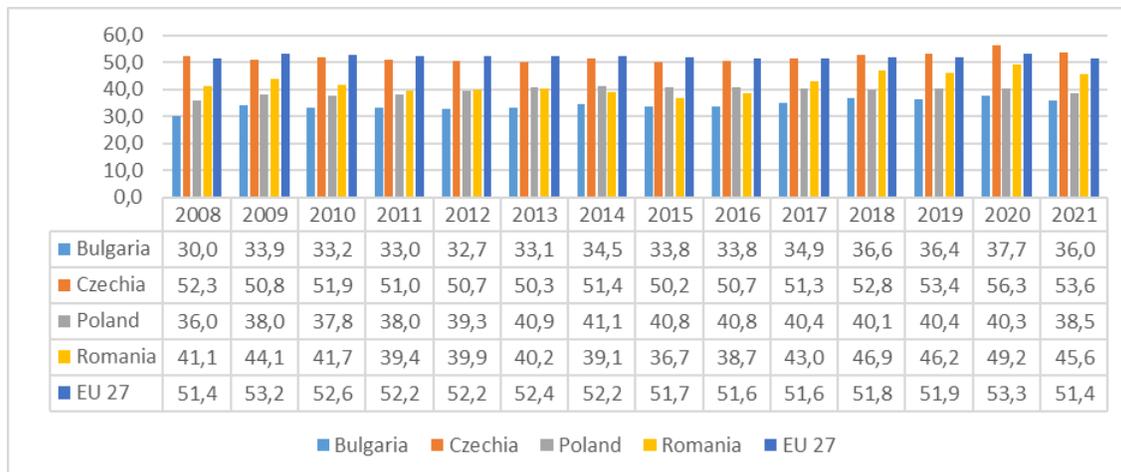


Figure 4. Labor taxation (% of total tax revenues) in the period 2008-2021 in Romania, Bulgaria, the Czech Republic, Poland and the EU 27 average

Source: Own processing based on data https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

Regarding *Fiscal Revenues from Labor Taxation, % GDP, from employers* (Figure 5), we note that in Romania the share of these revenues in GDP is the lowest (1% GDP in 2021), compared to countries in the region (10,2% GDP in the Czech Republic, respectively 8,2% EU 27 average; BG- 5,5% GDP, PL- 5,2% GDP). It should be noted that in Romania, these revenues have had a downward trend, and a steep drop has been since 2018, when the income tax rate was reduced, from 16%, to 10%, and the transfer of social contributions from the employer to the employee occurred.

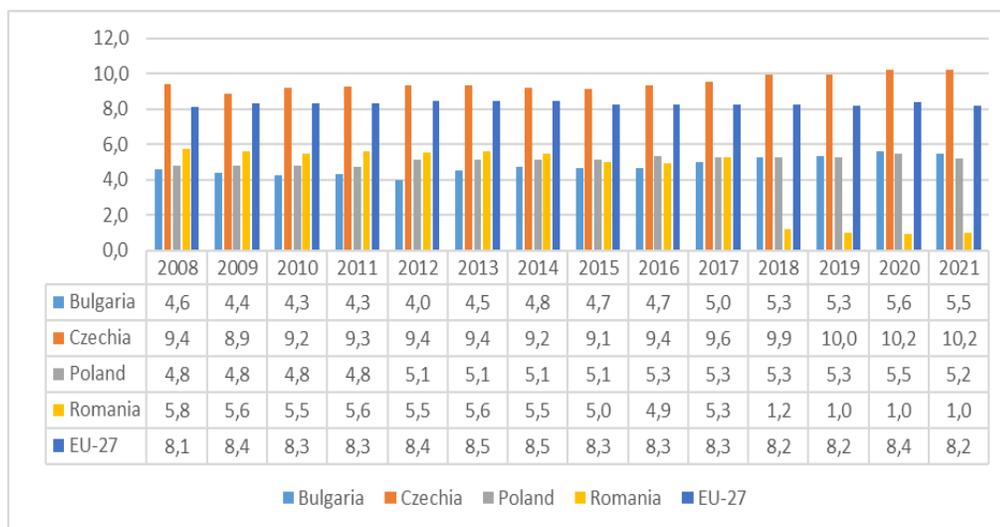


Figure 5. Fiscal revenues from labor taxation, % GDP, from employers, in the period 2008-2021, in Romania, Bulgaria, the Czech Republic, Poland and the EU 27 average

Source: Own processing based on data

https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

Regarding *Fiscal Revenues from Labor Taxation, % GDP, from employees* (Figure 6), we note that in Romania the share of these revenues in GDP is the highest (11,0% GDP in 2021), compared to the countries of region (6,9% GDP in the Czech Republic, respectively 10,2% EU 27 average; BG- 5,6% GDP, PL- 8., % GDP). It should be noted that in Romania,

these incomes have registered increasing values since 2018, when the transfer of social contributions from the employer to the employee occurred.

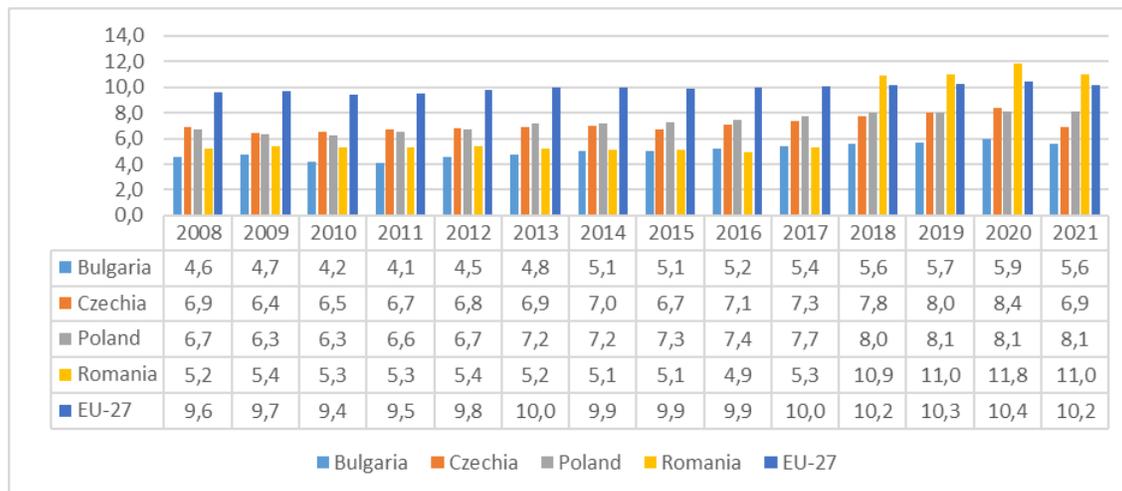


Figure 6. Fiscal revenues from labor taxation, % GDP, from employees, in the period 2008-2021, in Romania, Bulgaria, the Czech Republic, Poland and the EU 27 average

Source: Own processing based on data https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

As for revenues from social contributions, % GDP, in the period 2008-2021 (Figure 7), these revenues generally had an upward trajectory; also, if we refer to the year 2020, most of the states recorded slightly lower values, the Czech Republic having the highest increase, + 0,6 pp, Finland, + 0,5 pp. Decreases were recorded in countries such as Germany and Luxembourg (-0,2 pp), Belgium (- 0,5 pp), Estonia. In Denmark, social transfers are financed mainly by tax revenues (those from personal income taxation).

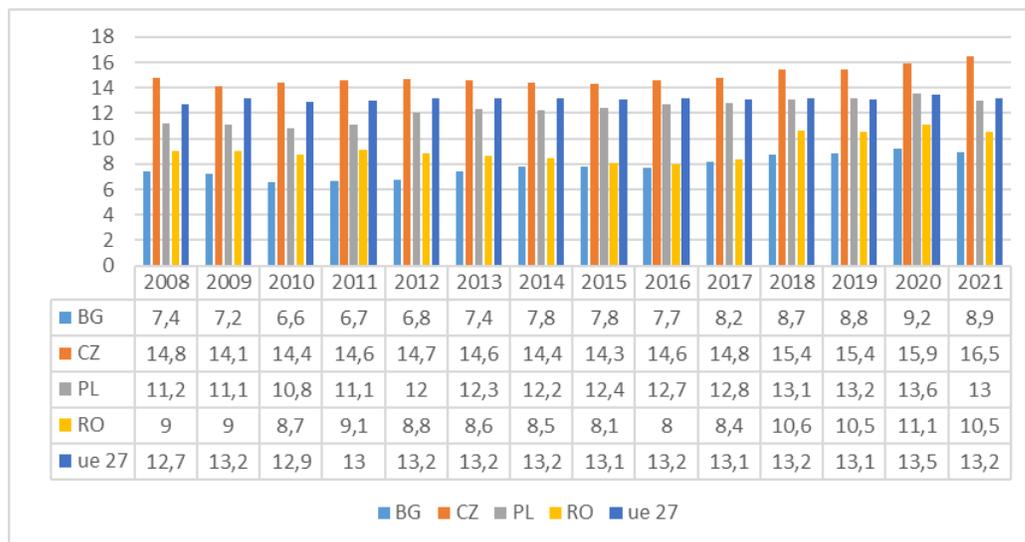


Figure 7. Tax revenues from social contributions, % GDP, 2008-2021, in Romania, Bulgaria, the Czech Republic, Poland and the EU 27 average

Source: Own processing based on data https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en

In the region, the states had a lower level than in 2020, with the exception of the Czech Republic. Romania recorded a level of 10,5% of GDP, 0,6 pp less than the previous year, below the regional average of 11,9%, surpassing only Bulgaria (8,9%). It should also be mentioned that from 2018 the fiscal regime of social contributions was reformed, by transferring contributions to the employee, which led to an increase in their collection, according to statistical data.

5. Some aspects about regional labor taxation for a standard employment contract

As we stated before, in the majority of European Union states labor taxation consists of the payment of income tax and the payment of social contributions. We are making a foray into the taxation of the standard employment contract, in the four countries in our analysis, at the level of 2021 (Cristea, 2023).

In Romania, where we have a single quota, a percentage of 47,5% of the gross salary, goes to the state. The employer pays the labor insurance contribution (CAM) at a rate of 2,25%, while the employee will pay the social insurance contribution (CAS) amounting to 25%, the health social insurance contribution (CASS), 10%, as well as income tax from wages (10%). It should be mentioned that currently certain industries, such as IT or research, benefit from a total exemption from income tax. Also, construction and food industry workers, in addition to a full income tax exemption, also benefit from the CASS exemption, as well as a 3,75% CAS reduction, namely the part of the contribution that goes to Pillar II . Also, in the case of employees who earn the minimum wage in the economy, in the amount of 2.550 lei gross, the employer can request an increase of 200 lei for which he does not pay any tax or any kind of contributions.

In Bulgaria, the total level of taxation for a standard employment contract, of 43%, means the tax on income from wages, of 10%, and the level of social contributions, which varies between 32,7% and 33,4%.

Which means that in for a gross salary of 1.000 euro, a Romanian employee will have a net income of 525 euro, while a Bulgarian employee would have a net income of 570 euro.

In the Czech Republic, the payment of contributions is divided equally between the employee and the employer and represents approximately 22% of gross income. Of these, a percentage of 9% is transferred to the public health insurance, and 13% the contribution to the public pension system. Regarding the health insurance system, it should be specified that it is managed by the private sector. The salary tax rate in the Czech Republic is 15%, except for those whose annual income exceeds 1.867.728 Czech crowns, or 76.270 euro. In this case the tax increases to 23%. In conclusion, an employee who is paid 1.000 euro gross, will be left with a net profit of 630 euro, so again, a lower tax than in Romania.

In Poland, part of the social contributions, 13,7%, are shared by both the employee and the employer, the latter contributing with a variable difference between 6-9%, reaching a percentage between 20-23 % for the pension, health and employment insurance system. As regards payroll tax, a tax of 17% is applied for an annual income of up to 85.528 zlotys, equivalent to 17.910 euro, and 32% for what exceeds this amount. For example, an employee who earns 125.000 zlotys annually pays 17% for 85.528 zlotys and 32% for the difference. It also switches to the higher tax rate only at the time of the year when the employee reaches the limit of 85.528 zlotys, which means that the net income of Poles decreases only in the second part of the year. Therefore, the total tax obligations applied to a monthly gross salary of 1.000 euro add up to approximately 40%, which means that he is left with 600 euro of net income.

In conclusion, for a standard employment contract, the employee will have a net income of 525 euro, in Romania, in Bulgaria, 570 euro, in the Czech Republic - 630 euro, in Poland - 600 euro.

6. Conclusions

In the paper we analyzed the size of labor taxation, in the period 2008-2021, in several countries in the region, namely Romania, Bulgaria, the Czech Republic and Poland, compared to the EU 2027 average. If we consider the level of tax revenues from labor taxation expressed as a share of GDP, we believe that the level of labor taxation in Romania, compared to the states in the region, is not the most burdensome, with Poland and the Czech Republic having higher tax costs than us. What attracts attention are the low level of tax revenue collection from labor taxation in GDP, the high level of employee contributions, the anomalies on the labor market in our country, as well as the high level of undeclared work (% of total employees) in this segment: 22% in Romania, 16% - Bulgaria, 17% Poland, 7% Czech Republic (Schneider, Asllani, 2022).

Anomalies on the labor market mean that the participation of the theoretically available labor force in the economic activity is significantly lower than the countries in the region (8,1 million active people in Romania), among the active population aged between 55 and 64, only 45,6 % are present in the labor market, an explanation of this percentage being represented by the category of special pensioners, who leave the activity at a very young age (KPMG, Concordia, 2023, course of governance).

If we consider the standard work contract, then labor taxation is the highest in Romania, compared to the other three countries, the employee will have a net income of 525 euro, in Romania, in Bulgaria, 570 euro, in the Czech Republic - 630 euro, Poland- 600 euro.

Thus, labor taxation should draw the attention of political decision-makers to:

- offering a higher degree of equity in work, lifting the pressure on low wages, both at the level of employees and employers;

- to achieve a certain fiscal progressivity, with high salaries being properly taxed;

- to ensure a positive relationship at the level of the state budget, focusing on consistent tax bases (higher incomes from work), which would ensure increased tax returns, while maintaining the balance between taxation and work stimulation,

through tax and non-tax deductions that adequately compensate for a higher tax margin.

- to be integrated into a complex reform process, aimed at measures related to the labor market, pension systems, health and education, as well as ensuring a decent standard of living.

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