

# The Distribution of the Wage Tax Burden in Romania

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## Abstract

*This article is about the distribution of the wage tax (and social contributions) burden in Romania. It presents the realities from two different years, 2012 and 2018. Why choose the years 2012 and 2018 for such analysis? Simply because, the year 2012 is relevant for a tax system already in place for a certain number of years (2005-2012)<sup>2</sup>. Then, starting the year 2018, some legislative changes generated effects useful to be studied.*

*The main finding of the analysis is that the wage tax (and the social contributions) work pretty well in terms of “social justice”. In other words, they affect more the workers with higher revenues than those with lower wages. Thus, the tax policy concerns could be more focused on other issues than justice, such as increasing taxation policy effectiveness, better understanding of the income elasticity of the tax payment, improving the administrative capacity of the fiscal administration, etc. (World Bank, 2012)*

*Keyword: fiscal policy, wage tax, effective wage tax rate, fiscal administration*

*JEL Codes: E62, D31*

## The Effective Wage Tax Rate vs. Nominal Wage Tax

The first step in this analysis is to present how the wage tax was levied and worked in 2012 and how it works today (using 2018 data). Also, some findings on the distribution of the wage tax and social contributions (unemployment, pension, health contribution) on the taxpayers are considered.

**Table 1 Total Employees and Gross Wages (RON)**

Year 2012		Year 2018	
Employees	Gross wage	Employees	Gross wage
6,579	658	15,896	1,574
223,563	700	718,997	1,863

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<sup>2</sup> In 2005, Romania introduced a single tax rate for wages and profit. Although the idea was to have a (simplified) fully fledged single tax rate for various categories of incomes (wages, corporate profits etc.), in fact, due to maintaining of some deductions for certain categories of wages, the tax system was always progressive as is it today, considering the effective tax rate and not the nominal tax rate.

Year 2012		Year 2018	
Employees	Gross wage	Employees	Gross wage
572,072	800	650,406	2,085
722,561	928	1,110,036	2,665
638,675	1,277	1,188,602	3,863
425,784	1,599	619,270	5,408
237,247	1,707	326,997	6,952
503,200	1,884	168,237	8,497
710,193	2,808	97,955	10,042
303,025	4,009	60,090	11,587
143,158	5,233	40,713	13,132
69,781	5,967	30,541	14,676
43,969	6,968	39,101	16,993
29,442	8,205	71,159	26,400
69,872	15,700		

*Source: Ministry of Public Finance, Romania*

In 2012, the total number of employees in Romania was 4,699,120. The gross wages ranged from the minimum of RON 658 to the maximum of RON 17,700. The gross wages below RON 4,009 were considered “low salaries” and personal deductions (defined by law) were applied before levying the tax wage.

In 2018, the total number of employees was 5,138,000. The gross wages ranged from the minimum of RON 1,574 to the maximum of RON 26,400. Personal deductions were applied for wages below RON 3,863.

**Table 2 Small Gross Wages (RON) and the Personal Deduction in 2012 and 2018**

Year 2012			Year 2018		
% of total employees	Gross wage	Personal deduction	% of total employees	Gross wage	Personal deduction
0.1	658	280	0.3	1,574	470
4.8	700	280	14.0	1,863	470
12.2	800	280	12.7	2,085	437
15.4	928	280	21.6	2,665	298
13.6	1,277	260	The range of gross wages for which the basic deduction applies was narrowed by the changes adopted in 2017. Is obvious an increase of gross wages in 2018 as against 2012 and a decrease of the number of “low salaries”.		
9.1	1,599	240			
5.0	1,707	230			
10.7	1,884	220			
15.1	2,808	150			

*Source: Ministry of Public Finance data*

A first observation -- comparing the present situation against 2012 -- is that the percentage of the employees with low wages in total employees significantly

decreased from 86 percent in 2012 to 34 percent in 2018. This happened on the background of the increase of all gross wages.

A second observation is that due to this increase of wages, the percentage of wage revenues for which a basic deduction was considered before taxation also decreased.

In order to allow workers with low salaries to pay less as wage tax (and to increase the net share of their wage income), the fiscal legislation allows some personal deductions (Art. 77, Fiscal Code)<sup>3</sup>. These deductions decrease as the gross wages increase and cease to apply after a certain level (above RON 2808 in 2012 and above RON 2,665 starting 2018). In 2012, these deductions ranged from RON 250 (for gross wages of RON 658) to RON 150 for the gross wage of RON 2,808. In 2012, the basic deduction was applied to nine levels of gross wages. Since 2018, the deductions increased as amount, but apply for a reduced number of ranges of the gross wages.

Considering the personal deductions – how they are defined (by law) and how they apply – is useful in understanding the distinction between the nominal wage tax and effective tax rate. Contrary to the public perception that in Romania a single tax rate is levied on (all) wages, the existence of these basic deductions for some levels of the gross wage eliminate the “uniform” character of the tax system. In reality, considering the effective wage tax and not the nominal tax rate, in Romania (after 2005) was always in place and still is a progressive tax system (Doltu, 2012).

Table 3 (The Effective Tax Rate in 2012) and Table 4 (The Effective Wage Tax Rate in 2018) present how the wage tax and social and health contributions are levied in Romania. First, subtracting the social contributions and health contribution from the gross wage gets the wage income. From this wage income the deduction is subtracted getting the taxable income. A 16 percent wage tax rate is applied to this taxable base. The resulting amount is paid to the government as wage tax. The effective tax rate is the ratio between the amount paid as wage tax and the taxable base, which is the wage income.

**Table 3: The Effective Wage Tax Rate in 2012\***

Gross wage	Social contributions <sup>1</sup>	Health <sup>2</sup>	Wage income	Deduction <sup>3</sup>	Wage tax <sup>4</sup>	Effective tax rate (%) <sup>5</sup>
658	72	36	549	280	43	8%
700	77	39	585	280	49	8%
800	88	44	668	280	62	9%
928	102	51	775	280	79	10%
1,277	140	70	1,066	260	129	12%

<sup>3</sup> The deductions from the wages are defined in the Fiscal Code (see Art. 77 Personal Deductions)  
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Gross wage	Social contributions <sup>1</sup>	Health <sup>2</sup>	Wage income	Deduction <sup>3</sup>	Wage tax <sup>4</sup>	Effective tax rate (%) <sup>5</sup>
1,599	176	88	1,335	240	175	13%
1,707	188	94	1,426	230	191	13%
1,884	207	104	1,573	220	216	14%
2,808	309	154	2,345	150	351	15%
4,009	441	220	3,347	0	536	16%
5,233	576	288	4,370	0	699	16%
5,967	656	328	4,982	0	797	16%
6,968	766	383	5,818	0	931	16%
8,205	903	451	6,851	0	1,096	16%
15,700	1,727	864	13,110	0	2,098	16%

*Source: Own calculations based on the Ministry of Public Finance data*

\* All values expressed in RON if not differently specified.

- 1) 11 percent of gross wage (Unemployment, pension and other social contributions);
- 2) 5.5 percent of gross wage;
- 3) Applies to low wages only;
- 4) 16 percent wage tax applied on the tax base; tax base is calculated as gross wage minus social contributions minus health insurance minus deduction;
- 5) The ratio between the amounts paid for wage tax and the wage income.

Obviously, eight effective wage tax rates (8 percent, 9 percent, 10 percent, 12 percent, 13 percent, 14 percent, 15 percent and 16 percent) were applied in 2012 and not only one (16 percent). 16 percent was just the nominal wage tax rate.

Employees earning lower wages paid smaller amounts for tax wage compared to those earning higher wages. While for a gross wage of RON 658 (the smallest gross wage) just RON 43 were paid as wage tax, RON 2,098 had to be paid as wage tax for a gross wage of 15,700 (the highest wage).

Starting 2018, just five effective tax rates (5 percent, 6 percent, 7 percent, 8 percent, and 10 percent) remained after the nominal wage tax rate was decreased from 16 percent to 10 percent. The progressive character of taxation has been maintained. The misperception on the “flat wage tax” or single wage tax rate continued to exist as well, not making the difference between the nominal and the effective wage tax rate.

The changes of the Fiscal Code introduced in year 2017 (effective of 2018), were much less spectacular than the nominal wage increases in the public sector envisaged for the next years. Only two main changes were adopted and they didn't affect the character of the taxation, which previously existed: the nominal wage tax rate was reduced from 16 percent to 10 percent, and the social contributions paid by

employees were slightly increased.<sup>4</sup> In fact, they were meant to reduce the negative impact of the expected increase of the wage bill on the expenditure side of the budget by limiting the effect on the revenue side – the wage tax and the social contributions.

**Table 4 The Effective Wage Tax Rate in 2018\***

Gross wage	Social contributions <sup>1</sup>	Health <sup>2</sup>	Wage income	Deduction <sup>3</sup>	Wage tax <sup>4</sup>	Effective tax rate (%) <sup>5</sup>
1,574	393	157	1023	470	55	5
1,863	466	186	1211	470	74	6
2,085	521	209	1356	437	92	7
2,665	666	266	1732	298	143	8
3,863	966	386	2511	0	251	10
5,408	1,352	541	3515	0	351	10
6,952	1,738	695	4519	0	452	10
8,497	2,124	850	5523	0	552	10
10,042	2,511	1,004	6527	0	653	10
11,587	2,897	1,159	7531	0	753	10
13,132	3,283	1,313	8536	0	854	10
14,676	3,669	1,468	9540	0	954	10
16,993	4,248	1,699	11045	0	1105	10
26,400	6,600	2,640	17160	0	1716	10

Source: Own calculations based on the Ministry of Public Finance data

\* All values expressed in RON if not differently specified.

- 1) 25 percent of gross wage (Unemployment, pension and other social contributions);
- 2) 5.5 percent of gross wage;
- 3) Applies to low wages only;
- 4) 10 percent wage tax applied on the tax base; tax base is calculated as gross wage minus social contributions minus health insurance minus deduction;
- 5) The ratio between the amounts paid for wage tax and the wage income.

### The Burden Sharing of the Wage Tax

In 2012, while the ratio between the highest wage and the lowest wage was 1:24 (the highest gross wage was the equivalent of 24 lowest gross wages), the ratio between the amounts paid as wage tax for the highest wage and the lowest one was about 1:49. In other words, the highest gross wage generated 24 times more wage tax revenue for the government compared with the smallest wage.

<sup>4</sup> Previously, the social contributions were equally divided between employers and employee – each of them paying 11 percent of the gross wage. Since 2018, the social contributions were reflected entirely on the employees' side, and slightly increased to 25 percent (from 22 percent before – 11 percent the employee plus 11 percent the employer).

Comparing the smallest wage with the highest one may not be so relevant. The lowest and the highest wage are not representative for the most of the employees but just for very small fractions.<sup>5</sup> However, comparing small wages – all wages for which the personal deduction is allowed -- with big wages – no deduction allowed – we have a different story.

As presented in Table 5 (Employees and Their Wage Tax Paid to the State Budget), in 2012, an overwhelming majority (86 percent) consisted of employees getting low wages, while just 14 percent of the total employees got higher wages. However, that minority (the employees with higher wages) provided 45 percent of the total government's revenue from the wage tax, while the majority (the employees with low wages) covered 55 percent of the government revenue from the wage tax. The sharing of the wage tax burden between small and big wages shows an obvious advantage for the employees with lower wages -- their contribution to the state budget is obviously smaller as against those with higher wages.

The distribution of the wage tax burden between low wages and big wages is significantly affected by the changes operated in 2017 and effective since 2018. In 2018, the number of employees getting small wages significantly decreased compared with 2012. The share of the employees with low wages was down to 49 percent from previously 86 percent, while the share of the employees with high wages was 51 percent – a significant increase from the previous 14 percent in 2012. Obviously, this is an improvement in terms of equity for the wage policy – a major decrease of the difference between big and low salaries. However, the distribution of the tax burden presents a completely different reality.

**Table 5 Employees and Their Wage Tax Paid to the State Budget**

Year 2012				
	Employees	% of total	Tax paid (RON)	% of total
Wages < 4,009	4,039,874	86	664,688,484	55
Wages > 4,009	659,246	14	537,760,020	45
Total	4,699,120	100	1,202,448,504	100
Year 2018				
	Employees	% of total	Tax paid (RON)	% of total
Wages < RON 3,863	2,495,335	49	273,098,094	20
Wages > RON 3,863	2,642,665	51	1,095,176,511	80
Total	5,138,000	100	1,368,274,605	100

*Source: Own calculations based on Ministry of Public Finance data*

<sup>5</sup> About 6,600 employees -- representing only a very small fraction in total employees – 0.1 percent -- were paid at the lowest level. Also, just about 70,000 employees – or about 1.5 percent of the total employees – were paid with the highest wage.

While the employees with low wages and those with high wages are about the same number, the latter provide 80 percent as government revenue from wage tax as against only 20 percent the first. This is a significant change compared with the year 2012. The wage tax burden was moved in an overwhelming way to the employees earning higher wages. In the same time, the ratio between the biggest gross wage and the smallest gross wage was about 1:17 – down from previously 1:24. Also, the ratio between the amounts paid as wage tax for the highest gross wage and for the smallest gross wage was down to 1:31 from previously 1:49. The progressive character of the taxation not only existed but it worked well indeed from the justice perspective (taxing more those with higher revenues than those with low revenues).

#### A view on the tax wage and the social contributions

Considering the contributions to the government revenues – including unemployment, pension and health contributions – the image on the burden sharing does not change. The employees with higher wages pay more as tax and provide significantly more as social contributions (including the health contribution) to the government revenue than the employees with small wages. The changes adopted in 2017 significantly increased the burden on higher wages while the number of small wages and their share in total wages significantly decreased between 2012-2018. Thus, the share of the employees with small salaries significantly decreased from 86 percent in 2012 to 49 percent in 2018, while the contribution of the employees with higher wages to the government revenue increased (as share) from 42 percent to 76 percent.

**Table 6 The Burden Sharing -- Total Wage Taxation Including Social Contribution and Health Insurance (% of total)**

	Year 2012		Year 2018	
	Employees	Contribution to the government revenue	Employees	Contribution to the government revenue
Small wages <sup>1</sup>	86	58	49	24
Big wages <sup>2</sup>	14	42	51	76
	100	100	100	100

*Source: Own calculation based on the Ministry of Public Finance data*

<sup>1</sup> For the year 2012, small wages were all wages ranging from RON 659 – RON 4008, while for 2018 they were between RON 1,574 and RON 3,862;

<sup>2</sup> For the year 2012, high wages were all wages ranging between RON 4009- RON 15,700 while for 2018 they were between RON 3,863- RON 26,400.

### Some considerations and conclusions

Analyzing and comparing the wage tax system in Romania in 2012 and today (using 2018 data) allows some considerations and leads to some general conclusions:

1. Romania applies de facto a progressive taxation for the wage income;
2. Higher wages are taxed much more than lower wages both in terms of the effective wage tax rate and also considering the general level of taxation – including the social contributions and health insurance;
3. The range between big wages and small wages decreased on the background of general gross wages increase;
4. The share of the small wages in total wages decreased significantly and the share of the higher wages in total wages increased on the background of general gross wage increase;
5. The employees with higher wages contribute much more to the government revenues from wages (including social contributions and health insurance) as against the employees with lower wages. The wage tax burden was significantly increased for higher wages while it was reduced for smaller wages.

As a general conclusion, considering Romania's position among the comparable countries in the region and the whole European Union, the Romanian wage tax system has two main characteristics:

1. The marginal wage tax rate (both the nominal one and the effective rate) is not at all a high one -- by the contrary is one of the lowest (Rogers and Philippe, 2018) and<sup>6</sup>;
2. The Romanian wage tax system works well in terms of (social) justice. However, the wage tax system does not work as well when it comes to the incentives for workers to enter employment (Diaz-Sanchez and Veroudakis, 2014).

The second conclusion could be an argument for public policy decision makers to focus their attention more on improving the functioning of the general administration of the tax policy and less on its "justice" side.

However, if the justice side of the tax policy seems less to be a problem that needs to be addressed, the general level of wages in Romania is indeed an issue and should attract the concerns of the public policies' debates and actions (Doltu, 2012 and 2018).

The average gross income from wages in Romania expressed in euro could be seen as comparable to the gross wage at the European Union level (Fischer, 2018). However, a completely different reality exists when it comes to comparing how

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<sup>6</sup> To compare the wage tax rates applied in the EU countries and also to understand the difference between tax levels among the EU countries, a variety of sources are available.



many employees in Romania get income from wages below the EU average gross wage and, how many get income from wages above the EU average gross wage.

**Table 7 Employees and Gross Income From Wages (EUR)  
in Romania in 2018**

Employees	% of total employees	Gross wage (EUR)*	Average gross wage
15,896	0.3	338	} EUR 1,930
718,997	14.0	400	
650,406	12.7	448	
1,110,036	21.6	573	
1,188,602	23.1	830	
619,270	12.1	1,162	
326,997	6.4	1,494	
168,237	3.3	1,826	
97,955	1.9	2,158	
60,090	1.2	2,490	
40,713	0.8	2,822	
30,541	0.6	3,154	
39,101	0.8	3,652	
71,159	1.4	5,674	

Source: Own calculations based on Ministry of Public Finance data

\* 2018 annual average exchange rate RON/EUR = 4.6530

As seen in Table 7, the average gross income from wages in Romania is EUR 1,930. This is not far from the EU gross wage average – EUR 2,143.5. However, only 7 percent of the total employees in Romania are paid above the EU average while 93 percent of the total employees in Romania get paid below the EU average gross wage (see Table 8: The Distribution of the Wage Tax Burden).

**Table 8 The Distribution of the Wage Tax Burden in Romania in 2018**

	Employees (persons)	Percent of total employees (%)	Distribution of the wage tax burden (%)
Below EU average (<EUR 2,144)	4,798,440	93	75
Above EU average (>EUR 2,144)	339,560	7	25
Total	5,138,000		100

Source: Own calculation based on the Ministry of Public Finance data

Considering wages below the EU average as low wages and the wages above the EU average as high wages, and checking this against the contribution to the government revenue from the wage tax, the conclusion previously found – the justice is not an issue for the Romania's wage tax system – is reconfirmed. The employees earning smaller income from wages pay less as taxes to the government compared with the employees with higher income from wages. Thus, 7 percent of the total workers (those with higher wages) bear 25 percent of the wage tax burden while the rest of 75 percent of the wage tax burden is shared among the 93 percent of the total workers.

### References

- Diaz-Sanchez, J. and Varoudakis, A., *Can Tax Reforms Help Create Jobs?* In Future Development - Economics to End Poverty, The World Bank, March 2014.
- Doltu, C. (2012), *The Rational Fiscal Policy*, Ziarul Financiar, 7.11. 2012.
- Doltu, C. (2018), *Political Economy Map – A Useful Tool for Public Policy Decision Makers*, Theoretical and Applied Economics, XXV Issue.
- Fischer, R. (2018), *Average Salary in European Union*, 2018, [www.reinifischer.com/average-salary-european-union-2018](http://www.reinifischer.com/average-salary-european-union-2018).
- Romania Fiscal Code.
- Rogers, J. and Philippe, C. (2018), *The Tax Burden of Typical Workers I the EU 28-2018*, p. 5, Institut Economique Molinari, Paris-Bruxelles.
- The World Bank (2012), *Romania Public Finance Functional Review*.