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# ANALYSIS OF LABOUR TAX WEDGE VALUE AND STRUCTURE IN POLAND IN 2005-2020

#### Introduction

Labour costs and the related labour tax wedge are a subject of numerous debates of economists whose aim is to make a correct analysis of the labour market. This still remains an issue open to debate. It is worth noting that there are many opinions that are not supported by complex analyses and computations and whose conclusions do not identify correctly the reality of the labour market and consequently distort the actual economic reality.

The objective of the article is to analyse the shape and to assess the progression of the labour tax wedge in Poland in 2005-2020. The components of the labour wedge were determined for employees on employment contracts due the prevalence of this form of employment and the resulting major macroeconomic effects.

Due to the dependence of the value of the tax wedge on employee's salaries, the article also takes into consideration the differences between the values of tax and para fiscal burdens in the cases of minimal, average and double- or treble-average salaries. The article will end with analytical conclusions regarding the level and degree of the tax wedge value progression for the assumed salary values in the period of 15 years and the suggestions for solutions.

## 1. The concept of labour tax wedge and the method of its measurement

Labour is one of them main elements of the functioning of economy. From the point of view of companies, labour is the cost<sup>1</sup> that is born to acquire, retain, improve and labour resources<sup>2</sup>. Salary, which is subject to obligatory taxation, is the fundamental element of labour costs where three levels of remuneration can be distinguished:

<sup>&</sup>lt;sup>1</sup> Labour costs were explained in economic literature already in 1925 by Friedrich Leitner, who noticed that salaries are an element of economic calculus apart from the costs related to the acquisition and use of labour resources.

<sup>&</sup>lt;sup>2</sup> J. W. Wiktor, Koszty pracy w przedsiębiorstwach, Instytut Pracy i Spraw Socjalnych, Warszawa 1991, p. 30.



- net salary, which is the amount actually received by the employee (after the deduction of obligatory payments paid by the employee),
- gross salary<sup>3</sup>, which constitutes the employee's income,
- grossed-up salary, which is the salary cost together with social insurance and non-insurance fund contributions that are paid by employers<sup>4</sup>.

Tax burden on salaries results from legal/public obligations<sup>5</sup>. This burden, which is understood as a public/legal, gratuitous, obligatory and non-returnable payment to the state treasury, voivodship, county or commune pursuant to the act on tax <sup>6</sup>, includes all kinds of obligatory public tributes that are related to the functioning of an economic entity, i.e. the so called para-taxes. This burden involves both the employee and the employer and it results in a substantial difference between the gross labour cost that is covered by the employer and the remuneration that is actually received by the employee.

Substantial fiscal burden on salaries is considered one of the main barriers of business operations<sup>7</sup>. The measure of the burden of taxes and para-taxes is the **labour tax wedge**, which emerges between labour supply and demand (Figure 1) and disturbs the balance between employment  $L_0$  and remuneration for work W.

<sup>&</sup>lt;sup>3</sup> A. Zgierska (ed.), *Zeszyt metodologiczny. Statystyka rynku pracy i wynagrodzeń*, Główny Urząd Statystyczny, Warszawa 2018, p. 68.

<sup>&</sup>lt;sup>4</sup> R. Rosiński, *Zmiany wielkości klina podatkowego w Polsce w latach 1999-2009*, Zeszyty Naukowe Uniwersytetu Szczecińskiego, 2009 No. 549, p. 418.

<sup>&</sup>lt;sup>5</sup> S. Owsiak, Finanse publiczne. Teoria i praktyka, Wydawnictwo Naukowe PWN SA, Warszawa 2005, pp. 172-173.

<sup>&</sup>lt;sup>6</sup> Act of 29 August 1997 on tax ordinance, Journal of Laws 1997, No. 137, item 926 as amended.

<sup>&</sup>lt;sup>7</sup> P. Arak, *Jak naprawić klin podatkowy w Polsce*, Polityka Insight 2016, www.politykainsight.pl/multimedia/ resource/res/20105881 (Accessed: 08.02.2020).

Figure 1. Salary tax wedge vs remuneration and employment

Source: Authors' research based on M. Gärtner, Macroeconomics, Financial Times/Prentice Hall, 2006, p. 152.

The financial burden on employees results in an actual decrease in remuneration that they dispose of (up to value N). This has a negative impact on taking up employment - the labour supply curve moves to the left (to position  $S_1$ ). The introduction of additional employer burden and the resulting increase in labour cost (to value K) lead to a decrease (to  $L_1$ ) in demand for employees (the demand curve moves to position  $D_1$ ). However, it should be noted that the effects of a labour tax and <u>para tax burden</u> are more complex than the classic dependencies presented above; it the employees' perception of the burden and the benefits it brings that is crucial. On the *grey market*, which is defined by the value of the tax wedge, both the employees and employers look for optimal solutions due to *lost benefits*. A significant tax wedge may encourage some employees to choose unregistered employment or other form of employment.

$$labour\ tax\ wedge = \frac{K - N}{K} \cdot 100\%$$

where:

K – annual grossed- up salary costs

N – annual net salary

The Authors assumed that the difference between the labour cost and the net salary of the employee includes only the obligatory burden on salaries. The structure of the calculated labour tax wedge includes:

- PIT<sup>8</sup>,
- social insurance contributions: retirement, disability, healthcare and work accident<sup>9</sup>
- health insurance contributions (the National Health Fund NFZ)<sup>10</sup>,
- obligatory contributions to special-purpose funds: the Labour Fund (FP)<sup>11</sup> and the Fund of Guaranteed Employee Funds (FGŚP)<sup>12</sup>

The tax wedge is usually defined in the indirect approach as

$$labour\ tax\ wedge = \frac{K - N}{K} \cdot 100\%$$

The article took into consideration the year 2020 and the possibility for employees to participate in the Employee Capital Plan (PPK)<sup>13</sup> as the lack of the employee's resignation from the participation in the programme involves additional compulsory salary burden<sup>14</sup>. It was assumed that the employee is employed by a big company (the deadlines for the implementation of the act on PPK vary, depending on the size of the company which is measured by the number of its employees<sup>15</sup>.

The fiscal burden was calculated for an employee with a full-time contract of employment. In order to determine the value of PIT, it was assumed that the employee was over 26 years of age<sup>16</sup>, single, without children, his/her income comes only from one contract of employment and the work is performed at the place of residence. The deductions from the income included only the contributions for the Social Insurance Institution (ZUS); a maximum possible health insurance contribution was deducted from the income. When determining the value of <u>non-insurance contributions</u>, it was assumed that the employee is under 55 years of

<sup>&</sup>lt;sup>8</sup> Act of 26 July 1991 on personal income tax (Journal of Laws 1991, No.80, item 350 as amended).

<sup>&</sup>lt;sup>9</sup> Act of 13 October 1998 on the social insurance system (Journal of Laws 1998, No.137, item 887 as amended).

<sup>&</sup>lt;sup>10</sup> Act of 27 August 2004 on healthcare services financed from public funds (Journal of Laws 2004, No.210, item 2135 as amended).

<sup>&</sup>lt;sup>11</sup> Act of 20 April 2004 on promotion of employment and labour market institutions (Journal of Laws 2008, No.69, item 415 s amended).

<sup>&</sup>lt;sup>12</sup> Act of 29 December 1993 on protection of employees claims in insolvency (Journal of Laws 1994, No.1, item 1 as amended).

<sup>&</sup>lt;sup>13</sup> Act of 4 October 2018 on employee capital plans (Journal of Laws 2018, item 2215 as amended).

<sup>&</sup>lt;sup>14</sup> Persons between 18-55 years of age are automatically registered in PPK.

<sup>&</sup>lt;sup>15</sup> The PPK Act is valid from: 1 July 2019 for entities that have at least 250 employees (as of 31 December 2018), from 1 January 2020 for entities with at least 50 employees (as of 30 June 2019), 1 July 2020 for entities with at least 20 employees (as of 31 December 2019), from 1 January 2021 for other entities of the public finance sector.

<sup>16</sup> Persons under 26 years of age are exempt from PIT tax since 1 August 2019.

age<sup>17</sup>. Moreover, it was assumed that the rate of the accident insurance contribution amounted to 50% of the maximum value established for activity groups in given contribution year<sup>18</sup>.

In the calculations monthly salaries were considered that were not lower than the minimal salary regulated by the act<sup>19</sup> and did not exceed the limits established by the Excessive Salary Act<sup>20</sup>. The values of the labour tax wedge for the minimum and average salaries were compared<sup>21</sup>. They were presented in relation to the values of wedges for the double and triple values of the average salary that is common for the remuneration of high-class specialists and executive staff.

In the context of the analyses that were conducted, one should point out at the high salary growth rate in Poland in 2005-2020. At the beginning of the period in question the minimum salary was 849 PLN (fig.1) and the average annual increase was 7.7% which in 2020 resulted in an over three times higher value of the minimum salary while the average salary in the national economy more than doubled (at the average rate of 5.4%).



Figure 2. Minimum and average \* salary in Poland in 2005-2020

Source: Authors' research on the basis of ZUS knowledge base, <u>www.zus.pl/baza-wiedzy/skladki-wskazniki-odsetki/wskazniki/minimalne-i-przecietne-wynagrodzenie</u> (Accessed: 2.02.2020).

<sup>\*</sup>The average salaries in 2019 and 2020 were based on the forecast.

<sup>&</sup>lt;sup>17</sup> The contributions to the Labour Fund (FP) and Fund of Guaranteed Employee Fund (FGŚP) are paid for female and male employees under 55 and 60 years of age, respectively.

<sup>&</sup>lt;sup>18</sup> In the case of a change in the accident insurance contribution in the course of a contribution year (1 April) the average weight was applied.

<sup>&</sup>lt;sup>19</sup> Act of 14 September 2004 on minimum salary in 2005 (Journal of Laws 2004, No.201, item 2062 as amended) <sup>20</sup> Act on remuneration of persons managing certain legal entities (Journal f Laws 2000, No.26, item 306 as amended).

<sup>&</sup>lt;sup>21</sup> Average salary in the national economy in the previous calendar year, announced annually by the President of GUS in a communique published in the Official Journal of the Republic of Poland *Monitor Polski* by the seventh working day of February (ZUS knowledge base, www.zus.pl, data accessed: 2.02.2020).



## 2. Characteristics of salary fiscal burden in Poland in 2005-2020

The value and structure of the tax wedge are determined by the principles of calculating the fiscal burden: the size of the bases, rates, thresholds, limits, tax deductions and contributions.

PIT is the basic obligatory tax for a natural person. Persons employed under an employment contract settle their income tax on general terms with the application of a progressive tax scale. The basis for the tax calculation is the income (gross income minus tax deductible expenses) from which income deduction can be made pursuant to legal regulations (social security contributions, donations and losses from other years). The rates and thresholds of PIT, tax reducing amounts and tax deductible costs in Poland in 2005-2020 are given in Table 1.

Table 1. PIT rates, thresholds and amounts that decrease the tax and tax deductible expenses in Poland in 2005-2020

Years	Rate I	Threshold I	Rate II	Threshold II	Rate III	Tax deductible expenses	Tax reducing amount
2005-2006	19%	37 024 PLN	30%	74 048 PLN	40%	1 227 PLN	530.08 PLN
2007	19%	43 405 PLN	30%	85 528 PLN	40%	1 302 PLN	572.54 PLN
2008	19%	44 490 PLN	30%	85 528 PLN	40%	1 335 PLN	586.85 PLN
2009-2017	18%	85 528 PLN	32%	-	-	1 335 PLN	556.02 PLN
2018	18%	85 528 PLN	32%	-	-	1 335 PLN	Dependent on the base value*
2019	17.75%*	85 528 PLN	32%	-	-	1 751.25 PLN	Dependent on the base value*
2020	17%	85 528 PLN	32%	-	-	3 000 PLN	Dependent on the base value *

<sup>\*</sup>X PLN – for the basis that does not exceed 85 528 PLN (employees with salaries not lower than the minimum salary)), X PLN – [X PLN · (tax calculation basis – 85 528 PLN) / 41 472 PLN], when the basis is in the bracket (85 528, 127 000), for the basis not lower than 127 000 there is no tax-free allowance. The value of amount X in 2018 - 556.02 PLN, in 2019 – 548.30 PLN, in 2020 – 525,12 PLN.

Source: Authors' research based on the data of the Ministry of Finance, <a href="www.mf.gov.pl">www.mf.gov.pl</a> and ZUS knowledge base, <a href="www.zuz.pl">www.zuz.pl</a> (Accessed: 2.02.2020).

In the analysis of the values of the tax rates and thresholds in the context of the value of the tax wedge a significant change in 2009 should be pointed out: a decrease by 1 percentage point in

<sup>\*\*</sup>Tax rates until September 2019: 18% for tax calculation basis up to 85 528 PLN and 32% for the surplus over this amount. On 1 October, the first rate was lowered to 17%, which in the whole 2019 resulted in the decrease of the rate to 17.74%.

the tax rate in the first tax bracket and the abolition of the second tax threshold which coincided with the change of the threshold amount and the establishment of the second bracket tax rate at  $32\%^{22}$ .

Some substantial changes that have an impact on the value of the tax wedge can be noticed in the last years of the period under investigation. In 2018, the tax reducing amount was made conditional on the value of the tax basis, which resulted in the increase in the tax amount of employees in the second tax bracket. However, the value of PIT decreased due to a significant change in the value of tax deductible costs that was introduced in October 2019.

Nevertheless, the basic part of the labour tax burden is not constituted by taxes but by parafiscal contributions, particularly social insurance contributions (Table 2). The objective of insurance contributions is to provide a benefit in the case of a particular event (including retirement and disability pensions, sickness and maternity benefits) for a period of time or to pay a lump-sum by an insurer (in respect to accidents at work and occupational diseases).

Retirement insurance contributions have the highest rate among social insurance contributions. The burden is covered in equal parts by the employer and the insured employee. In the period under investigation the rate remained stable (19.52% of the assessment basis)

The change in the tax wedge value in the period under investigation was caused mainly by lowering the rate of the disability insurance contribution on 1 July 2007. The employee's burden was decreased by 3 to 3.5 percentage points of the calculation basis. In 2008, there was a further decrease in both the employer's and the employee's shares to 4.5% and 1.5%, respectively. On 1 February 2012, the employer's rate of 6.5 % was restored and equalled the rate from the beginning of the period under investigation.

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<sup>&</sup>lt;sup>22</sup> 10 years later the so called *solidarity contribution* was introduced in the amount of 4% for the surplus of one million, which in fact resulted in the return of the third threshold. However, the remuneration subject to the solidarity contribution was not taken into consideration in the analysis.

Table 2. Parafiscal rates in Poland in 2005-2020

Year		Social i	insurance rates	Labour	Guaranteed Employee	Health	
	retirement	disability	healthcare	work accident	Fund	Benefits Fund	insurance
2005	19.52%	13%	2.45%	0.97-3.86%	2.45%	0.15%	8.5%
2006	19.52%	13%	2.45%	0.97-3.86% 0.9-3.6%***	2.45%	0.1%	8.75%
2007	19.52%	13% 10%*	2.45%	0.9-3.6% 0.67-3.6%***	2.45%	0.1%	9%
2008	19.52%	6%	2.45%	0.67-3.6%	2.45%	0.1%	9%
2009	19.52%	6%	2.45%	0.67-3.6% 0.67-3.33%***	2.45%	0.1%	9%
2010	19.52%	6%	2.45%	0.67-3.33%	2.45%	0.1%	9%
2011	19.52%	6%	2.45%	0.67-3.33%	2.45%	0.1%	9%
2012	19.52%	6% 8%**	2.45%	0.67-3.33% 0.67-3.86%***	2.45%	0.1%	9%
2013	19.52%	8%	2.45%	0.67-3.86%	2.45%	0.1%	9%
2014	19.52%	8%	2.45%	0.67-3.86%	2.45%	0.1%	9%
2015	19.52%	8%	2.45%	0.67-3.86% 0.4-3.6%***	2.45%	0.1%	9%
2016	19.52%	8%	2.45%	0.4-3.6%	2.45%	0.1%	9%
2017	19.52%	8%	2.45%	0.4-3.6%	2.45%	0.1%	9%
2018	19.52%	8%	2.45%	0.4-3.6% 0.67-3.33%***	2.45%	0.1%	9%
2019	19.52%	8%	2.45%	0.67-3.33%	2.45%	0.1%	9%
2020	19.52%	8%	2.45%	0.67-3.33%	2.45%	0.1%	9%

<sup>\*</sup> change of the rate from 1 July 2007, \*\* change of the rate from 1 February 2012, \*\*\* change of the rate from 1 April, \*\*\*\*at the time of the publication of this article, the rate was unknown, and in the calculations it was assumed that the rate remained unchanged.

Source: Authors' research based on knowledge base, www.zus.pl (Accessed: 12.02.2020).

It should be pointed out that the contribution calculation basis of retirement and disability pensions is limited per year. It may not exceed thirty times of the projected average monthly salary in national economy in a given calendar year. The values of the limits of contributions in the subsequent years of the period under investigation are given in table 3.

Table 3. Limits on contributions to retirement and disability pensions insurance in 2005-2020

Year	Limit value	Year	Limit value
2005	72 690 PLN	2013	111 390 PLN
2006	73 560 PLN	2014	112 380 PLN
2007	78 480 PLN	2015	118 770 PLN
2008	85 290 PLN	2016	121 650 PLN
2009	95 790 PLN	2017	127 890 PLN
2010	94 380 PLN	2018	133 290 PLN
2011	100 770 PLN	2019	142 950 PLN
2012	105 780 PLN	2020	156 810 PLN

Source: Authors' research based on knowledge base, www.zus.pl (Accessed: 12.02.2020).

In the period under analysis there was no change in the rates of healthcare insurance contributions (2.45% of the calculation basis) that were paid by the employee as well as of the contributions to the Labour Fund that are submitted by employers. The contributions to FGSP that are submitted only by employers remained stable at the level of 0.1% of the calculation basis with the exception of the initial period when the value of the contribution was by 0.05 percentage points higher. An insignificant impact on the change in the tax wedge value was exerted by changes in the rates of the accident insurance contribution (dependent on activity groups) that is also fully paid by employers.

In contrast to other fiscal burdens where the gross salary is the calculation basis, social insurance contributions submitted by employees are deducted from the gross salary when calculating healthcare insurance contributions,. The healthcare insurance contribution has remained unchanged since 2007 and amounts to 9% of the calculation basis. In 2005 and 2006, the rate was 0.5 and 0.25 percentage points lower, respectively.

On 1 January 2019 the Act on employee capital plans (PPK) 23 came into force. The lack of employee's resignation from the participation in the program results in the necessity to submit additional contributions by the employer and the employee. The Authors took into consideration the option of the basic payment which amounts to  $1.5\%^{24}$  and  $2\%^{25}$  of the gross salary for the employer and the employee, respectively and the submission of the PIT tax on the employer's contribution.

<sup>&</sup>lt;sup>23</sup> PPK – Employee Capital Plan is a savings program established by employers to enable employees raise additional retirement resources by long-term regular saving.

<sup>&</sup>lt;sup>24</sup> Employers may optionally increase their contribution to 4%.

<sup>&</sup>lt;sup>25</sup> Unless the salary exceeds 120% of the lowest remuneration, the contribution to PPK may be lowered to 0.5%. Both employees and employers may optionally increase the contributions to 4%.

### 3. Changes in the value of labour tax wedge in 2005-2020

Considering the characteristics of salary burdens it should be stated that the value of the labour tax wedge depends on the employee's remuneration. Figure 3 presents the values of the wedge for the following bases: a minimum salary, an average salary and double and triple average salaries in the Polish economy in 2005-2020.

47%
45%
45%
43%
41%
39%
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Figure 3. Values of the tax wedge for a minimum salary, an average salary and double and triple average gross salaries in the Polish economy in 2005-2020

Source: Authors' research and calculations based on ZUS knowledge base and the data of the Ministry of Finance.

Figure 3 shows that for the adopted calculation bases the highest level of the tax wedge occurred in 2006. The highest wedge of 46.3% was in the case of the triple average salary. In 2006, the fiscal and para-fiscal burdens for the average salary constituted 44.0% of the total labour costs, while for the minimum salary the figure was 3.7 percentage points lower. The difference between the tax wedge values for the minimum and the average salary reached the highest level at the beginning of the period under investigation – it decreased from 4 pp in 2005 to 1.4 pp in 2020.

In 2007-2009 there was a substantial drop in the tax wedge value: by 3.4 pp for the minimum salary basis and 4.6 pp for the average salary in the economy mainly due to the lowering of the disability pension contribution. The most visible decrease was in the case of the highest salalries that before 2009 were in the second and the third tax bracket and were particularly affected by the abolition of the second tax threshold which resulted in the decrease of PIT tax rate from 32% to 18%.

<sup>\*</sup>In 2020, the participation in PPK of employees with the basic contribution was taken into consideration (the dotted line).

This resulted in the drop of the tax wedge by 5.9 and 6.9 pp for the bases of double and triple salaries, respectively.

In 2010-2018 the increase in the tax wedge value was insignificant and the annual average increase rate equalled 0.8%, 0.5% and 0,7% for a minimum salary, average salary and double salary in the economy, respectively. The tax wedge value growth dynamics was more prominent in the case of a triple average salary and it was 1.4% per year. In 2012 a wedge growth is visible, which was mainly due to the increase of the disability pension contribution. In subsequent years the changes in the tax wedge value were the result of a fast pace of the increase in salaries in Poland while tax thresholds, tax deductible expenses and tax reducing amounts remained unchanged. Moreover, from 2018 the tax-free allowance was made dependable on the base value, which resulted in the decrease in or the lack of the tax reducing amount for bases in the second tax bracket.

From 2019, a decrease in the tax wedge value for salaries in the first tax bracket can be noticed due to the decrease of the tax rate by 1 pp in October and the increase of the amount of tax deductible costs. In the case of the double and triple average gross salary in the economy, there was an insignificant growth of the tax wedge value as the change of the parameters was not big enough to compensate the lack of the increase of the tax threshold despite the salary growth.

In 2020, the employee's participation in the PPK program (in the case of the basic contribution) results in the increase of the wedge by 2.4 pp on the average, which is represented by a dotted line in fig.3. This leads to an increase to 41.4% <sup>26</sup> which exceeds the previous values that were observed in the case of the minimum salary in the period under investigation). Every 1 PLN received by employees with a minimum, average, double and triple salary results in the employer's cost of 1.70 PLN, 1.74, 1.83 and 1.86, respectively.

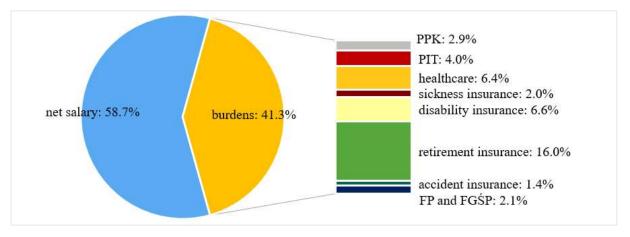
#### 4. Analysis of the labour tax wedge value in 2020

In 2020, the salary on hand that is received by employees with a minimum salary who participate in the PPK program accounts for almost 59% of the total salary labour costs (Fig.4). In the analysis of the labour tax wedge structure it should be emphasized that the income tax accounts for 4% of the grossed salary, i.e. 9.8% of the whole fiscal burden. Healthcare insurance amounts to 15..4 per cent of the wedge (i.e. 6.4% of the salary labour costs). ZUS contributions account for

 $^{26}$  In the case of a possible decrease of the PPK contribution to 0.5% for this basis, the tax wedge would also reach the highest value since 2005, equalling 40.6%.

67.9% of taxes and para-taxes (28% of the total costs) while the PPK contributions account for 6.9% of the tax wedge, i.e. 2.9% of labour costs.

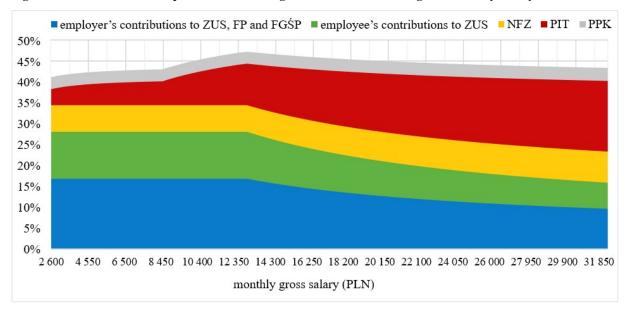
Figure 4. Structure of employee annual salary costs (100% = grossed remuneration) with the consideration of the salary tax wedge components at the minimum monthly gross salary in 2020



Source: Authors' research and calculations based on ZUS knowledge base and the data of the Ministry of Finance.

In 2020, the salary tax wedge resulting from the fiscal burdens that are imposed on remuneration is high for all salary levels and has values in the range 41,1% - 47,2% (figure 5). When an employee resigns from the participation in the PPK program, the tax wedge is in the range 38,7% - 44,9%. It is worth noting – which is not a common knowledge – that the maximum wedge is for the gross salary of 13 050 PLN.

Figure 5. The value and components of tax wedge in 2020 in relation to gross monthly salary



Source: Authors' research and calculations based on ZUS knowledge base and the data of the Ministry of Finance.

In Figure 5 a slight progression can be seen in the value of the salary tax wedge for tax payers from the first tax bracket<sup>27</sup>, which was caused by tax reducing and tax deductible amounts. The difference of almost 3.2 pp is the sole result of the differences in the income tax. After exceeding the tax threshold, the scale of progression in tax burdens reaches 6.1 pp, which is due not only to the higher tax rate but also to the tax reducing amount which is decreasing to zero.

One should strongly emphasize the significance of the limit that determines the payment of ZUS contributions. It is clearly visible that when the limit is exceeded, the tax wedge value decreases slowly. The abolition, which is under consideration, of the limits of the retirement and disability insurance might result in the growing tax wedge value together with the growth of remuneration – for the gross salary of 21 300PLN, the wedge would be over 50%.

The increase of salaries has a significant impact on the structure of taxes and para-taxes. The share of PIT in the tax wedge is going up substantially. As it was mentioned before, it accounts for 9.2%, 12.2%, 17.6% and 25.5 of the fiscal burdens for the minimum, average, double and triple salary, respectively. The para-taxes on gross salaries that are paid only by employers (ZUS, FP and FGŚP contributions) account for over 38% of the fiscal burden of taxpayers from the first tax bracket while the ZUS contributions that are deducted from employees' gross salaries account here for not less than 25% of the tax wedge.

It should be mentioned here that the tax wedge value depends on the form of employment. The para-fiscal burden of natural persons conducting non-agricultural activities includes obligatory social insurance contributions: retirement contribution (19.52% of the basis), disability pension contribution (8%), work accident insurance contribution (1.67%<sup>28</sup>) as well as the Labour Fund contribution (2.45%) and an optional sickness insurance contribution (2.45). The basis for the calculation of ZUS contributions is the declared amount not lower than 60% of the forecast average monthly gross salary in the national economy, which was 3136.20 PLN in 2020. Thus, ZUS contributions (together with the optional sickness insurance contribution) may reach 992.31 a month, irrespectively of the income value. The employers' obligatory health insurance contribution may also be constant and the calculation basis is not less than 75% of the average salary in the enterprise sector in Q4 of the previous year. In 2020, the basis is 4026.01 PLN and the contribution is 9%, i.e. 362.34 PLN per month. Additionally, persons conducting business activity have the right to choose a 19% flat taxation rate. As a result, the tax wedge in its present shape favours the resignation from

<sup>&</sup>lt;sup>27</sup> According the data of the Ministry of Finance, in 2018 97% of Polish taxpayers settled their taxes in the lower bracket.

<sup>&</sup>lt;sup>28</sup> This is the specific rate of contributions for payers who report to accident insurance fewer than 10 persons a month on the average, in the previous calendar year.

employment on work contracts by persons with high salaries for the sake of doing the same job in the form of business activity.

#### **Conclusions**

In 2005-2020, the value of the tax wedge remained on a high level in Poland for all salary levels. The tax and para-tax burdens for the average salary in the period under investigation constituted from 39.5% to 44% of the total labour costs. For employees with a minimum salary, the tax wedge value was 2.1 pp lower on the average; however, at the beginning of the period under investigation the progression rate was significantly higher than currently.

The progression in the tax wedge value at the beginning of the salary scale is the result of the income tax structure – of the existence of different rates and tax thresholds as well as of the tax reducing amount and tax deductible expenses. However, the limit regarding the retirement and disability pension contributions results in a decrease of the tax wedge for annual salaries that exceed the existing threshold.

In 2020, in the case of employees who participate in the basic option of PPK, the tax wedge value approached the level of 15 years before. Despite the changes in the final years of the period under investigation that resulted in a decrease in PIT value, the tax wedge for the minimum salary exceeded the value as of 2005.

A significant tax wedge may result – especially in the case of people with lower qualifications who potentially earn less – in the shift to the grey market. This is caused by the fact that high labour costs and the lack of possibilities to manufacture a product of a higher value than the total labour cost result in the decrease in work demand (this happens particularly in the case of a shock on the labour market). On the other hand, low legal salary that is obtained by employees has a negative impact on labour supply, particularly when social benefits are easily available. The tax wedge in its present shape has a negative impact on the labour market and on keeping jobs by employees with lower qualifications.

Regarding the highest tax and para-tax burden rates of employment contract salaries, the desire to rationalize them seems natural. The increase in salaries causes a growth in the attractiveness of other forms of employment, which consequently results in lower revenues of the state budget and the Social Insurance Fund. Thus, such substantial differentiation of labour fiscal burdens is disadvantageous to the economy.

However, the tax wedge value depends substantially on the insurance contributions rather than on PIT. Consequently, in order to decrease significantly the tax wedge, first of all the labour para-

tax burdens should be lowered as it was done in 2007-2009 when the disability insurance rate was lowered by 7 pp.

The abolition of the limit of ZUS contributions and the resulting increase in labour costs would affect sectors with the highest salaries —the companies that work on innovative products and technologies and employ specialists who are highly sought after in the labour market. Such a change might not result in the planned higher revenue but in the resignation by persons with high salaries from employment on work contracts for the sake of doing the same job in the form of business activity or in the outflow of high-class specialists to countries that offer lower labour costs.

A simplification of the tax system is a must. Complicated rules, numerous contributions, the lack of one tax and contribution base make it difficult to understand the principles of tax settlement and adequate valuation of the resulting benefits.

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#### Abstract

Labour costs and the related labour tax wedge constitute an economic and social issue that is still open to debate. The objective of the article is to analyse the shape and to assess the progression of the labour tax wedge in Poland in the period of 15 years. The components of the labour tax wedge were determined for employees on employment contracts. For the purpose of the analysis, a minimum, average as well as a double and triple salary in the Polish economy were adopted.

In the course of the period under investigation, the value of the tax wedge remained on a high level for all salary levels and constituted from 39.5% to 44% of the total labour costs. The value progression of the labour wedge results from the increase in para-fiscal burdens on labour. In order to decrease significantly the tax wedge in Poland a reduction should be made of the value of social and healthcare insurance contributions.